

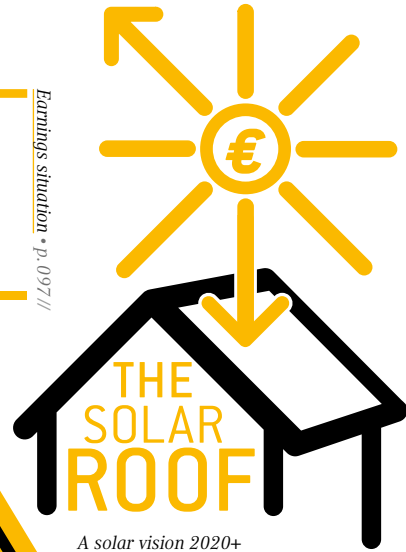
# ANNUAL GROUP REPORT 2009

## SOLARWORLD AG

**€ 1,012,574,595**  
GROUP REVENUES

Earnings situation • p. 097 //

The solar value chain 2009 • p. 077 //



A solar vision 2020+  
• Discussing the future //



Market 2009 • p. 070 // World Map



**2,000** SOLARWORLD EMPLOYEES WORLDWIDE

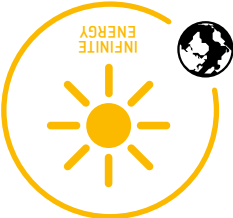
Human Resources 2009 • p. 105 //

**SOLARWORLD STANDS FOR SUSTAINABILITY**

ESTABLISHED HIGH GROWTH "GREEN CHIP" // BUSINESS MODEL AS SUSTAINABLE ANSWER TO CLIMATE PROTECTION AND ENERGY NEED, SUSTAINABILITY MANAGEMENT AND RECYCLING, SOLAR2WORLD ENGAGEMENT

Sustainable management • p. 043 //

POTENTIAL INFINITE



Opportunities • p. 128 //

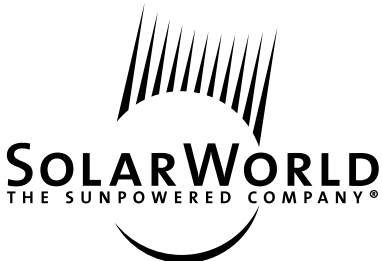
**SOLARWORLD STANDS FOR INDEPENDENCE**  
Concentration on the solar core business // Entire value creation, continuity in growth since 1998, strategic acquisitions from Bayer in 2000 and from Shell in 2006 mark strength of growth

Development of business 2010+ • p. 139 // Chronicle • inside cover



Strategy and action • p. 033 //

Vision • p. 002 // Letter by the chairman • p. 017 //



**SOLARWORLD STANDS FOR SUCCESS**

**HEALTHY FINANCIAL BASIS AND OPERATING BUSINESS //**

Cash flow from operating business, basis for innovation and worldwide growth, long-term success in the capital market.

Strategy • p. 033 // Historical stock development • p. 064 // Earnings, Finance and Assets Situation 2009 • p. 097 // 2010+ • p. 145 //

# SOLARWORLD 2009

Further information on the fiscal year • Inside cover//



## ① SELECTED INDICATORS // IN K€

KPI'S FOR ESG • p. 221//

INDEX • p. 217//

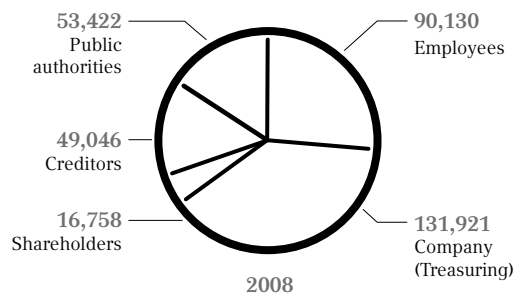
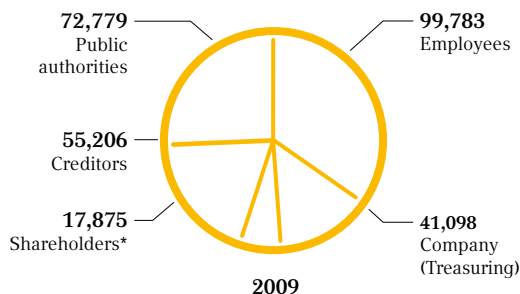
Financial indicators	2009	2008	Change in %
Revenue from continued operations	1,012,575	900,311	12.5
Foreign quota in %	29.3	54.0	-24.7%-points
EBITDA	215,465	318,426	-32.3
EBIT	151,806	263,260	-42.3
EBIT in % of revenue	15.0	29.2	-14.2%-points
Capital employed (key date)*	1,112,025	703,238	59.2
ROCE **	13.7	37.4	-24.0%-points
Consolidated net income	58,973	148,678	-60.3
Consolidated net income in % of revenue	5.8	16.5	-10.7%-points
Total assets	2,217,050	2,120,622	4.5
Equity	865,462	841,075	2.9
Equity ratio	39.0	39.7	-0.6%-points
Return on equity	6.8	17.7	-10.9%-points
Cash flow from operating activities	-32,997	320,463	-110.3
Net liquidity ***	-279,807	131,983	-312.0
Investments in intangible assets and property, plant and equipment	293,182	271,594	7.9
<b>Employee indicators</b>			
Employees (key date)	2,000	1,825	9.6
of which trainees (key date)	86	83	3.6
Personnel costs ratio	9.4	9.8	-0.4%-points
Revenue per employee (in k€)	506	493	2.6
EBIT per employee (in k€)	76	144	-47.4

\* Intangible assets and property, plant and equipment less deferred investments subsidies and plus net current assets except for current net liquidity

\*\* EBIT/Capital employed

\*\*\* Liquid funds and other financial assets less financial liabilities

## ② DISTRIBUTION OF VALUE ADDED // IN K€



\* 2009 based on dividend proposal by Board of Management and Supervisory Board of 16 cent per share

# SOLARWORLD 2009

Further information on the fiscal year • Front cover//

## 03 VALUE ADDED CREATION // IN K€

Value added origin	Value Added Creation 2009		Value Added Creation 2008	
	k€	%	k€	%
Revenues	1,012,575	88.0	900,311	96.1
Other revenues	137,752	12.0	36,910	3.9
<b>Result of operations</b>	<b>1,150,327</b>	<b>100.0</b>	<b>937,221</b>	<b>100.0</b>
Cost of material	691,062	60.1	454,060	48.4
Depreciation and amortization	63,659	5.5	55,166	5.9
Other expenses	108,865	9.5	86,718	9.3
<b>Value added</b>	<b>286,741</b>	<b>24.9</b>	<b>341,277</b>	<b>36.4</b>
<b>Distribution of value added</b>	<b>k€</b>	<b>%</b>	<b>k€</b>	<b>%</b>
Employees	99,783	34.8	90,130	26.4
Company (Treasurying)	41,098	14.3	131,921	38.7
Shareholders*	17,875	6.2	16,758	4.9
Creditors	55,206	19.3	49,046	14.4
Public authorities	72,779	25.4	53,422	15.7
<b>Value added</b>	<b>286,741</b>	<b>100.0</b>	<b>341,277</b>	<b>100.0</b>

\* 2009 based on dividend proposal by Board of Management and Supervisory Board of 16 cent per share

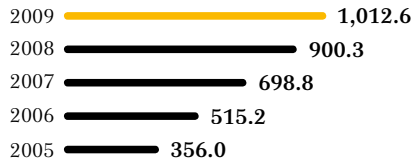
## 04 QUARTERLY COMPARISON OF THE CONSOLIDATED INCOME STATEMENTS // IN K€

	Q1 2009	Q2 2009	Q3 2009	Q4 2009	Q4 2008	Change in %
Revenue	176,266	225,300	232,501	378,508	234,937	61.1
Inventory change in products	71,736	14,114	33,408	-70,428	17,399	-504.8
Own work capitalized	441	0	223	2,453	6,453	-62.0
Other operating income	5,084	22,592	13,242	9,735	6,079	60.1
Cost of materials	-150,728	-152,012	-174,269	-214,053	-144,063	48.6
Personnel expenses	-26,179	-24,651	-23,423	-25,530	-27,754	-8.0
Amortization and depreciation	-14,710	-15,556	-16,415	-16,978	-16,804	1.0
Other operating charges	-24,137	-24,243	-29,056	-31,429	-24,238	29.7
<b>Result of operations</b>	<b>37,773</b>	<b>45,544</b>	<b>36,211</b>	<b>32,278</b>	<b>52,009</b>	<b>-37.9</b>
Financial result	-2,807	-10,052	-8,595	1,400	-18,975	-107.4
<b>Pre-income tax result</b>	<b>34,966</b>	<b>35,492</b>	<b>27,616</b>	<b>33,678</b>	<b>33,034</b>	<b>1.9</b>
Taxes on income	-11,183	-7,587	-11,605	-42,404	-7,606	457.5
<b>Group profit / loss</b>	<b>23,783</b>	<b>27,905</b>	<b>16,011</b>	<b>-8,726</b>	<b>25,428</b>	<b>-134.3</b>

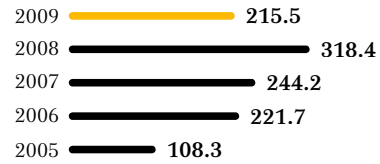
**05 DEVELOPMENT OF KEY DATA IN FIVE-YEAR-COMPARISON**

*Disclosures for 2007 and earlier including discontinued operations*

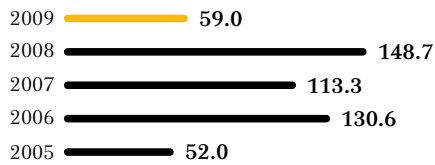
**Revenues (in million €)**



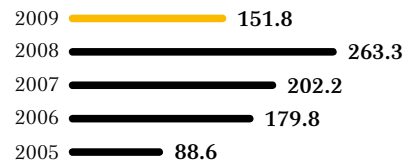
**EBITDA (in million €)**



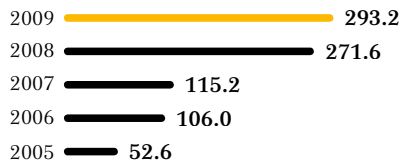
**Group profit/loss (in million €)**



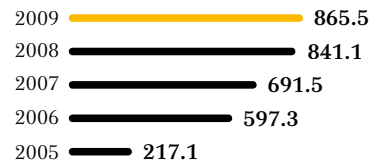
**EBIT (in million €)**



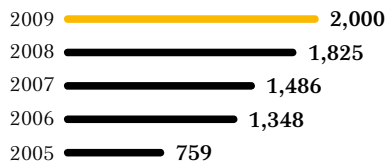
**Investments excluding financial investments (in million €)**



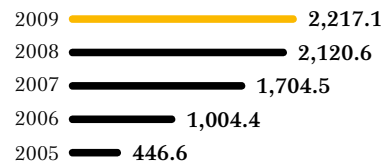
**Equity (in million €)**



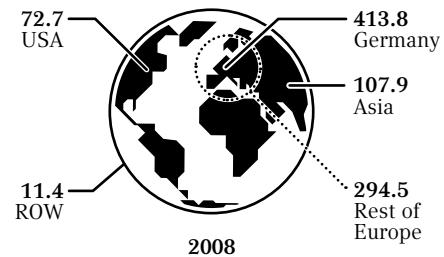
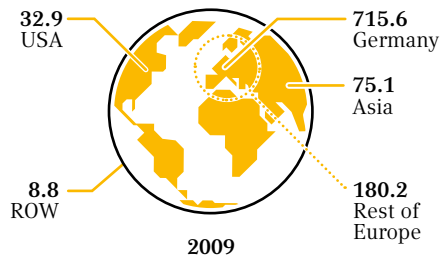
**Employees**



**Balance sheet total (in million €)**



**06 REVENUE BY REGION // IN MILLION €**





---

# ANNUAL GROUP REPORT 2009

## REPORT ON SUSTAINABLE CORPORATE MANAGEMENT

---

### CONTENT

004	SUN AT WORK
017	LETTER BY THE CHAIRMAN
023	REPORT BY THE SUPERVISORY BOARD
033	GROUP MANAGEMENT REPORT
149	CONSOLIDATED FINANCIAL STATEMENTS
213	REPORT ON SUSTAINABLE CORPORATE MANAGEMENT
261	GLOSSARY
267	SUBJECT AND ACRONYMS INDEX
	CHRONICLE → COVER INSIDE
	FINANCIAL AND EVENTS CALENDAR → COVER

---

The report on our sustainability performance is provided within the framework of the Global Reporting Initiative and has been integrated into our Annual Group Report 2009.

On 16 October 2009 SOLARWORLD was the first exclusively solar company worldwide to sign the “United Nations Global Compact”. This voluntary economic initiative on the part of the United Nations is designed to make globalization more environmentally and socially compatible. By joining this initiative SOLARWORLD again shows its leadership role and vision in the area of corporate sustainability.

Within the context of the Global Compact the participating organizations undertake to publish annual progress reports (Communication on Progress, COP) in which the measures to implement the principles of the Global Compact are presented. We are integrating this Communication on Progress in the [Report on sustainable corporate management](#) • p. 213//. This follows the internationally recognized framework of the Global Reporting Initiative (GRI) which in turn the UN Global Compact also recommends for its reporting.

---

## OUR VISION

# BUILD A SOLARWORLD



THE VISION OF THE **SOLARWORLD** GROUP IS TO BUILD A RELIABLE, ENVIRONMENTALLY FRIENDLY AND SAFE ENERGY SUPPLY WORLDWIDE.

---

**SOLAR ENERGY IS THE KEY** TO PROTECTING OUR RESOURCES AND OUR CLIMATE AND BY WAY OF AN INCREASING INDEPENDENCE FROM FOSSIL RESOURCES IT MAKES A CONTRIBUTION TO AVOIDING MILITARY CONFLICTS.

---

WE ARE WORKING ON MAKING SOLAR POWER GENERATION COMPETITIVE IN ALL MARKETS AS QUICKLY AS POSSIBLE AND ON ENABLING ALL PEOPLE TO MAKE DECENTRALIZED USE OF SOLAR ENERGY AND THUS TO GET THE OPPORTUNITY **FOR SUSTAINABLE DEVELOPMENT.**

---



# SOLARWORLD IS ZEITGEIST

ROOFSCAPE IN BERLIN // THE ROOF AS AN INFINITE RESOURCE

→ WORLD MAP "THE MARKETS AND THE ROOFS OF THE WORLD"

→ DISCUSSING THE FUTURE "UP ON THE ROOFTOPS OF THE WORLD"







# SOLARWORLD IS PIONEER

SOLARWORLD ON THE WAY TO ITS CUSTOMERS

→ STRATEGY AND ACTION • P. 033

→ REPORT ON EXPECTED DEVELOPMENT, DEVELOPMENT OF BUSINESS 2010+ • P. 139





# SOLARWORLD IS BORDERLESS

IRRIGATION SYSTEM IN KENYA DRIVEN BY SOLARWORLD MODULES

→ REPORT ON EXPECTED DEVELOPMENT,  
OPPORTUNITIES FROM GENERAL CONDITIONS • P. 128





# SOLARWORLD IS SUCCESSFUL

SOLARWORLD INSTALLER IN LOS ANGELES, USA

→ SALES MARKETS, BRAND AND PRODUCT • P. 081

→ 2009 INNOVATION REPORT • P. 090

→ [WWW.SOLARWORLD.DE/SUNMODULES](http://WWW.SOLARWORLD.DE/SUNMODULES)





# SOLARWORLD IS A BRAND

SUN AT WORK ON TIMES SQUARE IN NEW YORK IN JANUARY 2010

→ BRAND • P. 083

→ [ANNUALGROUPREPORT2009.SOLARWORLD.DE/SUN-AT-WORK/VIDEO](http://ANNUALGROUPREPORT2009.SOLARWORLD.DE/SUN-AT-WORK/VIDEO)





PLANET HOLLYWOOD

**HSBC**  
The world's local bank  
Different values  
[us.hsbc.com/values](http://us.hsbc.com/values)

**SUN AT WORK**  
SOLARWORLD.DE

PLANET HOLLYWOOD  
GOLD FINANCIAL RESTAURANT & BAR

**1540 BROADWAY**

PLANET HOLLYWOOD

PLANET HOLLYWOOD

PLANET HOLLYWOOD

# SOLARWORLD IS READY

→ Corporate Governance • p. 053 //

## THE BOARD OF MANAGEMENT



### **PHILIPP KOECKE** CHIEF FINANCIAL OFFICER // CFO

Responsible for the areas Controlling, Investor Relations/Corporate Communications, IT, HR, Accounting, Group Accounting and Internal Audit  
// Since 2003



### **BORIS KLEBENSBERGER** CHIEF OPERATING OFFICER // COO

Responsible for the QM and EM areas as well as for production management and Controlling  
// Also in charge of control of the producing subsidiaries as well as Research and Development  
// Since 2001



### **FRANK H. ASBECK** CHIEF EXECUTIVE OFFICER // CEO

As founder of the company, he is responsible for corporate development, public relations and also energy and corporate policy  
// Since 1999



### **DIPL.-WIRTSCHAFTSING. FRANK HENN** CHIEF SALES OFFICER // CSO

Responsible for the coordination of national and international sales  
// Since 2004



**SOLARWORLD**  
THE SUNPOWERED COMPANY®

**SOLARWORLD**  
THE SUNPOWERED COMPANY®

**SOLA**  
THE SUNP

**SUN  
AT WORK**  
SOLARWORLD-GLOBAL.COM



**PHILIPP  
KOECKE**

**BORIS  
KLEBENSBERGER**

**FRANK H.  
ASBECK**

**FRANK  
HENN**

**SOLARWORLD IS ECONOMICALLY SUCCESSFUL.** WE WILL SHOW YOU THIS IN THE PRESENT ANNUAL GROUP REPORT. WE AGAIN WENT ON A JOURNEY IN 2009: TO OUR CUSTOMERS IN THE SOLAR MARKETS OF THE FUTURE, TO PEOPLE IN OFF-GRID REGIONS OF THE WORLD, TO LEGENDARY PLACES THAT ARE EXAMPLES OF THE HIGH ENERGY CONSUMPTION OF MODERN INDUSTRIALIZED SOCIETIES, TO THE ROOFS OF MODERN CITIES.

THERE WE AGAIN CAPTURED THE SUN. BECAUSE THE SUN SHINES DOWN ON EVERY SPOT OF THE EARTH: CLEAN, SAFE, INEXHAUSTIBLE AND FAIR. **SUN AT WORK.**

IMMERSE YOURSELF IN THIS WORLD AND CLICK YOUR WAY TO OUR ONLINE REPORT UNDER:

**[ANNUALGROUPREPORT2009.SOLARWORLD.DE/SUN-AT-WORK/VIDEO](http://ANNUALGROUPREPORT2009.SOLARWORLD.DE/SUN-AT-WORK/VIDEO)**

**SOLARWORLD**

INDEPENDENT, SUSTAINABLE, SUCCESSFUL  
THROUGH OUR FULLY INTEGRATED SOLAR  
VALUE CHAIN – SINCE 1998

---



*Dipl.-Ing. Frank H. Asbeck*  
*CEO of SolarWorld AG*

## Letter by the Chairman

**Dear Customers, Shareholders, Employees and Friends of SolarWorld AG,**

A challenging and not always easy year 2009 lies behind the solar industry. The SOLARWORLD AG felt this, too. The industry-wide decline in prices, the increasing competitive pressure mainly from the Chinese mass marketers, the uncertainties caused by the upcoming amendment of the law on renewable energies in our core market Germany – all that together has exerted noticeable pressure on us as well.

Yet, the question is: What are we actually talking about? Against the industry trend SOLARWORLD again generated healthy earnings and a sound return in investment in 2009. We are writing black figures. We boosted our sales revenues to more than one billion Euro. Ten years ago we started as a pioneer. Today we are a world leader in the industry. We have always been able to measure ourselves against our objectives.

This is plenty of evidence that the strategic approach we adopted is the right one. And: We are operating in a market supported by a megatrend – the increasing demand for energy. In the next 20 years the global demand for electricity will shoot up by 66 per cent. The sales market for energy alternatives is therefore bound to increase due to the finiteness of conventional energy sources and the need to find climate-friendly answers. It is therefore unavoidable that there will be a shift in demand towards alternative technologies in power generation. Conventional energy sources will become increasingly more expensive; solar energy will become increasingly less expensive through intensive technological development and economies of scale. The time of grid parity – i.e. the moment when power from the wall socket costs more than power from your own solar power plant on the roof – is coming closer and closer. Depending on the number of hours of sunshine and the country concerned as soon as in 2013. Companies that now manage to successfully establish their market position will benefit to a large extent from the demand that will then grow significantly. Our business model ensures us precisely today our growth into the future.

This year we are faced by further challenges: We must find answers to the massive cuts in the feed-in tariffs in Germany. I am against over-subsidizing the solar industry because we need the acceptance of the people who pay for this. It is only in this way that we can manage the energy turnaround. Still, in the first instance this means strong pressure that we need to cushion.



We will continue to invest in the strengths of SOLARWORLD with an appropriate investment speed and good investment tactics. We will again “step on the accelerator” and intensively work on the cost structures along the entire solar value chain. New and highly advanced production plants installed in the context of our current expansion measures will again increase our productivity.

Our supreme credo will remain: The SOLARWORLD brand stands for top quality. Our products distinguish themselves in competitive comparisons by the highest yields and the best performance warranties. And that is also our quality promise for the future: We will place a major strategic emphasis on our innovative power. With high quality products “Made by SOLARWORLD” we will continue to convince our customers and open up new growth markets.

Let me summarize it this way: With our tried and tested integrated business model – just recently once again strengthened at the raw material base in the sunny state of Qatar – we secure our independence and our sustainability claim, guarantee consistent SOLARWORLD quality and, on the cost side, find answers to the need for competitive prices. We are economically successful, have a good liquidity framework and can thus achieve the investment targets we have set ourselves.

And so we are self-confidently looking into the future! In 2010 we will maintain our speed of growth and increase our production volume as planned by more than 30 per cent. Our SOLARWORLD is marked by team spirit and a strong will to perform, which in turn is based on the commitment of our employees. At this point it is they who again deserve my heartfelt thanks and my trust for reaching the targets we set ourselves. And we will face the challenges of such a rapidly growing company: We will consistently strengthen our processes because we know about the need for optimization. For us the satisfaction of our customers is the highest measure. We must gain this with top quality in logistics and service and with a perfect product in typical SOLARWORLD quality.

Our performance is driven by the power of the sun: SUN AT WORK!

I thank you for your trust and I promise you: The future will remain exciting and we, the SOLARWORLD, will have a hand in shaping it. That’s what I am looking forward to together with you.

Sunny regards,



*Dipl.-Ing. Frank H. Asbeck*  
*CEO of SolarWorld AG*





# THE SUPERVISORY BOARD



## **DR. GEORG GANSEN**

DEPUTY CHAIRMAN

Attorney-at-law/Corporate Legal Counsel by Deutsche Post AG located in Bonn, Germany

*Initial appointment: 18.12.1998  
End of current appointment period: May 2013*

*Dr. Gansen additionally holds the following appointments on legally required Supervisory Boards and similar supervisory bodies:*

- Deputy Chairman of the Supervisory Board of Solarparc AG, Bonn
- Deputy Chairman of the Supervisory Board of Deutsche Solar AG, Freiberg
- Deputy Chairman of the Supervisory Board of Sunicon AG, Freiberg



## **DR. CLAUD RECKTENWALD**

CHAIRMAN

Attorney-at-law and partner in the law firm of Schmitz Knoth Rechtsanwälte in Bonn, Germany

*Initial appointment: 18.12.1998  
End of current appointment period: May 2013*

*Dr. Recktenwald additionally holds the following appointments on legally required Supervisory Boards and similar supervisory bodies:*

- Chairman of the Supervisory Board of Solarparc AG, Bonn
- Deputy Chairman of the Supervisory Board of Deutsche Solar AG, Freiberg
- Member of the Supervisory Board of VEMAG Verlags- und Medien AG, Cologne
- Deputy Chairman of the Supervisory Board of Sunicon AG, Freiberg
- Member of the Supervisory Board of Wanderer-Werke AG, Augsburg (bis November 2009)
- Member of the advisory body of Grünenthal GmbH, Aachen (since January 2010)



## **DR. ALEXANDER VON BOSSEL**

MEMBER

Attorney-at-law and partner in the law firm of Sozietät CMS Hasche Sigle in Cologne, Germany

*Initial appointment: 18.12.1998  
End of current appointment period: May 2013*

*Dr. von Bossel additionally holds the following appointments on legally required Supervisory Boards and similar supervisory bodies:*

- Member of the Supervisory Board of Solarparc AG, Bonn

---

## STATEMENT BY THE CHAIRMAN OF THE SUPERVISORY BOARD

2009 THE BOARD OF MANAGEMENT,  
THE COMPANY EXECUTIVES AND THE  
ENTIRE WORK-FORCE OF THE SOLARWORLD  
GROUP AGAIN PRODUCED WORLDWIDE  
OUTSTANDING WORK.

---

*Dr. Claus Recktenwald*  
*Chairman of the Supervisory Board*

## **Report by the Supervisory Board of SolarWorld AG on Fiscal Year 2009**

**Dear Shareholders of SolarWorld AG, dear Employees and Friends of the SolarWorld Group,**

A firm grounding, a sure eye and consistent sustainability – that’s what it was all about but not just as of year one after the financial market crisis. For SOLARWORLD’s eleventh fiscal year the tone was set by Corporate News like “Solar Power for the Pope”, “Best German Stock of the Decade” or “SOLARWORLD AG Outperforms € 1 Billion Revenue Forecast”. That also makes the Supervisory Board proud, and we feel rightly so.

In today’s composition the Supervisory Board of SOLARWORLD AG has existed since the founding of the company on 18 December 1998. It was reelected for another five years on 21 May 2008. This report describes its activities in fiscal year 2009. Again it subjects itself to an increased reporting duty which in turn means that the Supervisory Board made available to the auditors of the company the complete minutes of all the meetings of the Supervisory Board in the year 2009 including all the relevant attachments.

The Supervisory Board of SOLARWORLD AG again performed all the tasks imposed upon it by the relevant laws, the articles of association and the rules of procedure. It did so in a continuous dialogue with the Board of Management of the company which it both advised and monitored pursuant to paragraph 111 AktG (German Stock Corporation Act). At the same time the Supervisory Board was engaged in checking its own efficiency. On the whole no complaints resulted from its activities in general and the monitoring of the management in particular. This is why the Supervisory Board will propose to the Annual General Meeting that the actions of the Board of Management in fiscal year 2009 be ratified.

In the year under review the Supervisory Board had seven formal meetings, four of which were ordinary quarterly meetings. The meetings took place on 18 February, 25 February, 16 March, 11 May, 6 August, 24 November and 17 December 2009. The August meeting was part of a Group Supervisory Board Meeting which was repeated. On a regular basis at least one member of the Board of Management attended the Supervisory Board meetings, which took place only in exceptional cases without Management Board involvement. The Board of Management on its part kept the Supervisory Board informed about all Management Board meetings by submitting the written agenda and afterwards the minutes of the meeting.



In all decisions of fundamental importance to the company the Supervisory Board was involved in a direct and timely fashion. The Board of Management informs the Supervisory Board regularly both in writing and verbally, punctually and comprehensively about all the relevant questions of corporate planning and strategic development, about the earnings, asset and finance situation of the company as well as about the current business policy and the risk management system being practiced. The reporting duties pursuant to paragraph 90 AktG were complied with as much as the stipulations of the German Corporate Governance Code (GCGC).

In 2009, the work of the Supervisory Board of SOLARWORLD AG concentrated on the following priority issues: audit and final conference as well as balance sheet discussion with the auditors on all consolidated companies; monitoring of the accounting process, the effectiveness of the internal control system, the internal risk management system and the internal audit system as well as the audit itself, the independence of the auditors and the additional services rendered by the auditors; preliminary discussion of the quarterly figures with the Chief Financial Officer; international marketing strategy including sponsoring engagement in the sports area; approval of the consulting and representation services rendered to the group by the law firm of Schmitz Knoth Rechtsanwälte, Bonn, which is close to the Chairman of the Supervisory Board as contemplated by IAS 24; approval and addition to the rental contracts for the SOLARWORLD AG administration; opening up new business fields and production expansion in Freiberg/Saxony and in Korea; GPV settlement; preparation and approval of the AGM resolution on the capping of the Management Board remuneration; further integration of foreign subsidiaries; ongoing and future raw materials projects; preparation and submission of the Declaration of Compliance pursuant to paragraph 161 AktG concerning the GCGC version of 18 June 2009 as published on 5 August 2009; accompaniment and approval of the bond issue amounting to € 400 million.

In all its activities the Supervisory Board of SOLARWORLD AG was guided by the recommendations of the GCGC, which it and the Board of Management again completely complied with in 2009. In the same way in which the Supervisory Board in its meeting on 29 September 2008 approved the previous version of the GCGC of 6 June 2008, both for the year just ended and for the following year, it now approved the current version of the GCGC of 18 June 2009 as published on 5 August 2009 in a repeat resolution passed on 24 November 2009 and made permanently available to all shareholders pursuant to paragraph 161 AktG on the website of the company with the following wording:

*“The recommendations by the ‘Government Commission on the German Corporate Governance Code’ as published by the Federal Ministry of Justice in the official section of the Electronic Federal Gazette are being complied with by the Supervisory Board to the extent that they are applicable to it.”*

Following this the Board of Management of SOLARWORLD AG approved an equivalent GCGC Declaration of Compliance on 14 December 2009, which was also published pursuant to paragraph 161 AktG. The Supervisory Board received proof of this publication. At the same time the section “Corporate Governance Report” in this Annual Group Report for 2009 also contains all the relevant details on Management



Board remuneration, Supervisory Board compensation and GCGC implementation unless the report by the Supervisory Board also contained in the annual report already includes the information as required by section 3.10 of the GCGC.

As far as compliance with the GCGC recommendations by the Supervisory Board of SOLARWORLD AG is concerned the coordination of the strategic alignment of the company and the regular discussion of the state of strategy implementation were dealt with in the context of the consistently practiced exchange of information with the Management Board (section 3.2 GCGC). In this process the provision of information to the Supervisory Board is seen as a joint task of the Management Board and the Supervisory Board (section 3.4 GCGC). Especially the Chairman of the Board of Management was regularly informed by the Supervisory Board of the company about its own activities and was integrated into these as much as possible. Clashes of interest as defined by section 5.5 GCGC did not occur in the process. The Supervisory Board also considers itself to be independent as defined in section 5.4.2 GCGC. To the extent that mandatory approvals were required as defined in section 5.5.4 GCGC these were invariably obtained.

The tasks described by the new Accounting Law Modernization Act with regard to accounting and auditing are performed by the three-member Supervisory Board itself. To the extent that the law demands in this context that at least one member of the Supervisory Board be independent and have experience in the areas of accounting and auditing, the Supervisory Board as a whole declares itself to be sufficiently qualified. In the first instance it is enough for only one member of the Supervisory Board to have expertise in the field of accounting or alternatively in the field of auditing. This applies to all members of the Supervisory Board as fully qualified lawyers, who have all specialized in business law. In addition, the necessary expertise is simply taken for granted in the case of "long-standing members of audit committees". As all three Supervisory Board members have been involved in the annual auditing of the financial statements of the SOLARWORLD Group since 18 December 1998, i.e. for more than ten years, no further explanation is needed at this juncture.

The audit company BDO Deutsche Warentreuhand Aktiengesellschaft Wirtschaftsprüfungsgesellschaft, Bonn, which was appointed by the Supervisory Board on the instructions of the Annual General Meeting of 20 May 2009 to again audit the financial statements and the consolidated annual financial statements of SOLARWORLD AG for fiscal year 2009 first renewed its declaration of independence as defined in section 7.2.1 GCGC, thus confirming that no business, financial, personal or other relationships existed between the auditor and his organizations and chief auditors on the one hand and the company and its organization members on the other hand that might give rise to doubts about the auditor's independence. It was also ascertained that none of the auditors involved in the audit had exceeded the seven-year overall limit for the authorization of issuing unqualified audit certificates, to be applicable to the entire group.

The report to be given by the Supervisory Board on the result of the examination of its own efficiency should according to paragraph 171 Sec. 2 AktG also include the statement on which committees it has formed. As, however, the Supervisory Board of SOLARWORLD AG is limited to three members the extensive





formation of committees was also superfluous in fiscal year 2009. To the extent that paragraph 175 Sec. 2 AktG requires an explanatory report on the information pursuant to paragraph 289 Sec. 4, paragraph 315 Sec. 4 of the German Commercial Code (HGB) the Supervisory Board adopts the relevant report of the Board of Management fully subscribing to the statements made in it. The management and consolidated management reports affected by this were also audited by BDO Deutsche Warentreuhand Aktiengesellschaft Wirtschaftsprüfungsgesellschaft, Bonn, which extended the audit to the accounting as well. The annual financial statements for the fiscal year ending on 31 December 2009 drawn up by the Management Board according to the HGB accounting rules and the management report for SOLARWORLD AG were awarded the unqualified auditor's certificate by BDO on 12 March 2010. At the same time the auditor also gave his unqualified auditor's certificate to the consolidated management report and the consolidated annual financial statements of SOLARWORLD AG, which pursuant to paragraph 315a HGB was again drawn up on the basis of the international reporting standards IFRS.

After its own examination of the annual financial statements, the consolidated financial statements, the management report and the consolidated management report the Supervisory Board approved the audit result presented by the auditor. It did not see any reasons for objections. Previously it had discussed the audit priorities with the auditors in a meeting on 17 December 2009 and had met with the auditors for a final conference on 24 February 2010. Both meetings took place in the presence of the Chief Financial Officer of SOLARWORLD AG. In the balance sheet meeting on 15 March 2010 further details in conjunction with the unqualified auditor's certificates awarded on 12 March 2010 were finally discussed. Here again no doubts concerning the correctness of the results produced by the auditors were raised, which is why a further investigation was not required. In the balance sheet meeting the Supervisory Board then also approved the financial statements and the consolidated financial statements. The financial statements are hence adopted. The Supervisory Board also adopted the proposal of the Board of Management regarding the appropriation of the balance sheet profit.

In the year 2009 the Board of Management and the entire workforce of the SOLARWORLD Group again produced outstanding work – and did so worldwide. The Supervisory Board offers heartfelt thanks combined with its respect and appreciation.

Bonn, 15 March 2010



*For the Supervisory Board*  
*Dr. Claus Recktenwald*  
*Chairman*



# GROUP MANAGEMENT REPORT

---

<b>033</b>	<b>STRATEGY AND ACTION</b>
040	CORPORATE MANAGEMENT AND CONTROL
<b>047</b>	<b>BUSINESS AND GENERAL CONDITIONS</b>
053	CORPORATE GOVERNANCE REPORT 2009
<b>063</b>	<b>BUSINESS DEVELOPMENT 2009</b>
063	STOCK 2009
070	MARKET 2009
077	THE SOLAR VALUE CHAIN 2009: FROM SILICON TO MODULES
081	SALES MARKETS, BRAND AND PRODUCT 2009
090	INNOVATION REPORT 2009
097	EARNINGS, FINANCE AND ASSETS SITUATION 2009
105	HUMAN RESOURCES 2009
<b>111</b>	<b>SUPPLEMENTARY REPORT</b>
<b>114</b>	<b>REPORT ON EXPECTED DEVELOPMENT WITH ITS MAJOR OPPORTUNITIES AND RISKS</b>
114	RISK REPORT
128	FORECAST REPORT 2010+

---

➔ Cf. to text passage • page//  
Ⓜ Cf. to to chart • page//  
🌐 [www.internetlink.com](http://www.internetlink.com)  
📍 Cf. to sustainability index • page//  
📍 Cf. to solar World Map • Insert//  
Cf. to glossary<sup>9</sup>

# CONTENT

## 033 STRATEGY AND ACTION

- 033 SOLARWORLD CORPORATE STRATEGY 2009/2010+
- 036 STRATEGIC FINANCING 2009/2010+
- 037 MAJOR BUSINESS EVENTS IN 2009
- 040 CORPORATE MANAGEMENT AND CONTROL
- 040 SUSTAINABLE MANAGEMENT AND CONTROL
- 044 INTERLINKING OF MANAGEMENT TOOLS

## 047 BUSINESS AND GENERAL CONDITIONS

- 047 BUSINESS FIELDS // ORGANIZATION STRUCTURE
- 047 GROUP STRUCTURE AND SEGMENTS
- 050 WORLDWIDE LOCATIONS OF THE GROUP
- 050 IMPORTANT PRODUCTS, SERVICES AND BUSINESS PROCESSES
- 051 MARKET POSITION // INFLUENCING FACTORS
- 051 COMPETITIVE POSITION AND MAIN SALES MARKETS
- 051 LEGAL AND ECONOMIC INFLUENCING FACTORS
- 053 STATEMENT ON THE CORPORATE GOVERNANCE OF THE COMPANY
- 053 CORPORATE GOVERNANCE WITHIN SOLARWORLD
- 053 CORPORATE GOVERNANCE REPORT 2009

## 063 BUSINESS DEVELOPMENT 2009

- 063 STOCK 2009
- 063 HISTORICAL PRICE DEVELOPMENT OF SOLARWORLD STOCK
- 064 CAPITAL MARKET DEVELOPMENT 2009
- 065 DEVELOPMENT OF THE SOLARWORLD STOCK 2009
- 066 SHAREHOLDERS AND COMMUNICATIONS
- 068 TAKEOVER DIRECTIVE LAW
- 070 MARKET 2009
- 070 ECONOMIC ENVIRONMENT
- 071 THE WORLD ENERGY MARKET
- 073 THE SOLAR POWER MARKET
- 076 EFFECTS OF GENERAL CONDITIONS ON BUSINESS DEVELOPMENT IN 2009
- 077 THE SOLAR VALUE CHAIN 2009: FROM SILICON TO MODULES
- 077 "PRODUCTION GERMANY" SEGMENT
- 078 "PRODUCTION USA" SEGMENT
- 079 PROCUREMENT
- 081 SALES MARKETS, BRAND AND PRODUCT 2009
- 081 "TRADE" SEGMENT
- 083 BRAND PROMISES AND INVESTMENTS
- 088 PRODUCTS "MADE BY SOLARWORLD"
- 090 INNOVATION REPORT 2009
- 090 ORGANIZATION OF OUR INNOVATION ACTIVITIES
- 097 EARNINGS, FINANCE AND ASSETS SITUATION 2009
- 097 EARNINGS SITUATION
- 100 FINANCIAL SITUATION
- 103 ASSET SITUATION
- 105 HUMAN RESOURCES 2009

## 111 SUPPLEMENTARY REPORT

- 111 DISCLOSURE OF TRANSACTIONS OF PARTICULAR IMPORTANCE
- 112 IMPACT OF TRANSACTIONS OF PARTICULAR IMPORTANCE
- 113 OVERALL STATEMENT BY THE MANAGEMENT BOARD ON THE ECONOMIC SITUATION AT THE TIME OF THE REPORT

## 114 REPORT ON EXPECTED DEVELOPMENT WITH ITS MAJOR OPPORTUNITIES AND RISKS

### 114 RISK REPORT

- 114 OPPORTUNITY AND RISK MANAGEMENT SYSTEM
- 116 INTERNAL CONTROL AND RISK MANAGEMENT SYSTEM REGARDING THE GROUP REPORTING PROCESS
- 118 RISK MANAGEMENT SYSTEM REGARDING FINANCIAL INSTRUMENTS
- 118 CORPORATE RATING
- 118 INDIVIDUAL RISKS
- 127 OVERALL STATEMENT OF MANAGEMENT BOARD ON THE RISK SITUATION OF OUR GROUP

## 128 FORECAST REPORT 2010+

### 128 OPPORTUNITIES

- 128 OPPORTUNITIES FROM THE DEVELOPMENT OF GENERAL CONDITIONS
- 132 STRATEGIC OPPORTUNITIES
- 132 ECONOMIC PERFORMANCE OPPORTUNITIES
- 133 OTHER OPPORTUNITIES
- 134 MARKET 2010+
- 134 FUTURE ECONOMIC ENVIRONMENT
- 134 THE FUTURE WORLD ELECTRICITY MARKET
- 135 THE FUTURE SOLAR POWER MARKET
- 139 DEVELOPMENT OF BUSINESS 2010+
- 139 FUTURE ORIENTATION OF THE GROUP
- 140 FUTURE DEVELOPMENT OF "PRODUCTION GERMANY" SEGMENT
- 140 FUTURE DEVELOPMENT OF "PRODUCTION USA" SEGMENT
- 141 FUTURE SALES MARKETS 2010+, "TRADE" SEGMENT
- 142 FUTURE RESEARCH AND DEVELOPMENT ACTIVITIES // "OTHER" SEGMENT
- 142 FUTURE PRODUCTS AND SERVICES
- 143 FUTURE PROCUREMENT
- 144 HUMAN RESOURCES – FUTURE DEVELOPMENT
- 145 EXPECTED EARNINGS AND FINANCIAL SITUATION
- 146 OVERALL STATEMENT BY THE MANAGEMENT BOARD ON THE ANTICIPATED DEVELOPMENT OF THE GROUP

# STRATEGY AND ACTION

The year 2009 has shown that we have found the right strategic answers to the changing market environment and that we have achieved the revenue target of € 1 billion we set ourselves.

The world markets for solar power products underwent an elementary structural change in the year under review. While the solar industry had previously been production-driven in order to overcome bottlenecks and to service the increasing demand, the market now turned from a sellers' to a buyers' market. The worldwide capacities rose by around 50 per cent while demand lagged behind. The result was a strong decline in prices. If manufacturers did not want to base their sales on price only at the expense of margins<sup>9</sup> and quality, cost reductions and productivity increases also had to be achieved. In addition, competition had to be met head on strategically with factors such as design, product warranties and quality, service and closeness to the customer. → *The solar power market* • p. 073//

It is particularly in this turbulent market environment that our strategy has proved to be the correct one.

## SOLARWORLD CORPORATE STRATEGY 2009/2010+

In line with our “BUILD A SOLARWORLD” vision, our strategy is based on the manufacture of products for decentralized power supply. The future belongs to the use of solar power technology on people's own roofs as this is feasible on an almost unlimited, worldwide basis. That is why our products are not complicated niche products but are instead geared to universal application in a large, worldwide market. They can be enhanced in their functionality and are therefore also easy to integrate into a decentralized combination of other supply units. This is SOLARWORLD's way to an independent, reliable and environmentally friendly energy supply.

Quality leader with a strong brand – this is the strategic course we already successfully adopted ten years ago. Our motto is to produce the products that we offer as a fully integrated solar technology group along the entire solar value chain. With respect to suppliers, we bank on quality and environmental standards that are in line with our group specifications.

Through consistent quality assurance from the wafer to the solar system, this is the way we offer our customers on all continents uniform quality and the brand promise: “Made by SOLARWORLD”. And that provides us with the necessary business flexibility to respond promptly and in a way that improves profit-



ability to any changes in market parameters. Take 2009 as an example: The increased global supply of wafers and a simultaneous decline in prices caused us to invest even more intensively in the group's own value creation. With enhanced module capacities in the solar core markets of Europe, North America, and Asia, we will again strengthen our engagement in the retail market from 2010 onwards and expand our global market position.

**CORPORATE STRUCTURE 2010+.** SOLARWORLD is among the largest solar groups worldwide and operates sites in the most important economic regions. Of strategic relevance to our investment decisions at the production sites are infrastructure factors that guarantee the high demands placed on process and product quality as well as with respect to environmental and social standards. The group's own production sites are therefore located in Freiberg, Germany, as well as in Hillsboro and Camarillo, USA. Here, we create employment at scientific and economic locations and thus cut our complexity costs. With the objective of strategically securing our logistic proximity to the important future market of Asia, we additionally expanded our global production network by adding another module production facility in the form of a joint venture<sup>9</sup>. Through the cooperation with our South Korean partner, we benefit from that company's cultural, regional and technical know-how in the complex Asian market. The sales offices of SOLARWORLD AG are located in the major solar growth regions. ➔ [Worldwide locations of the group](#) • p. 050 // 🌐 [World Map](#) //

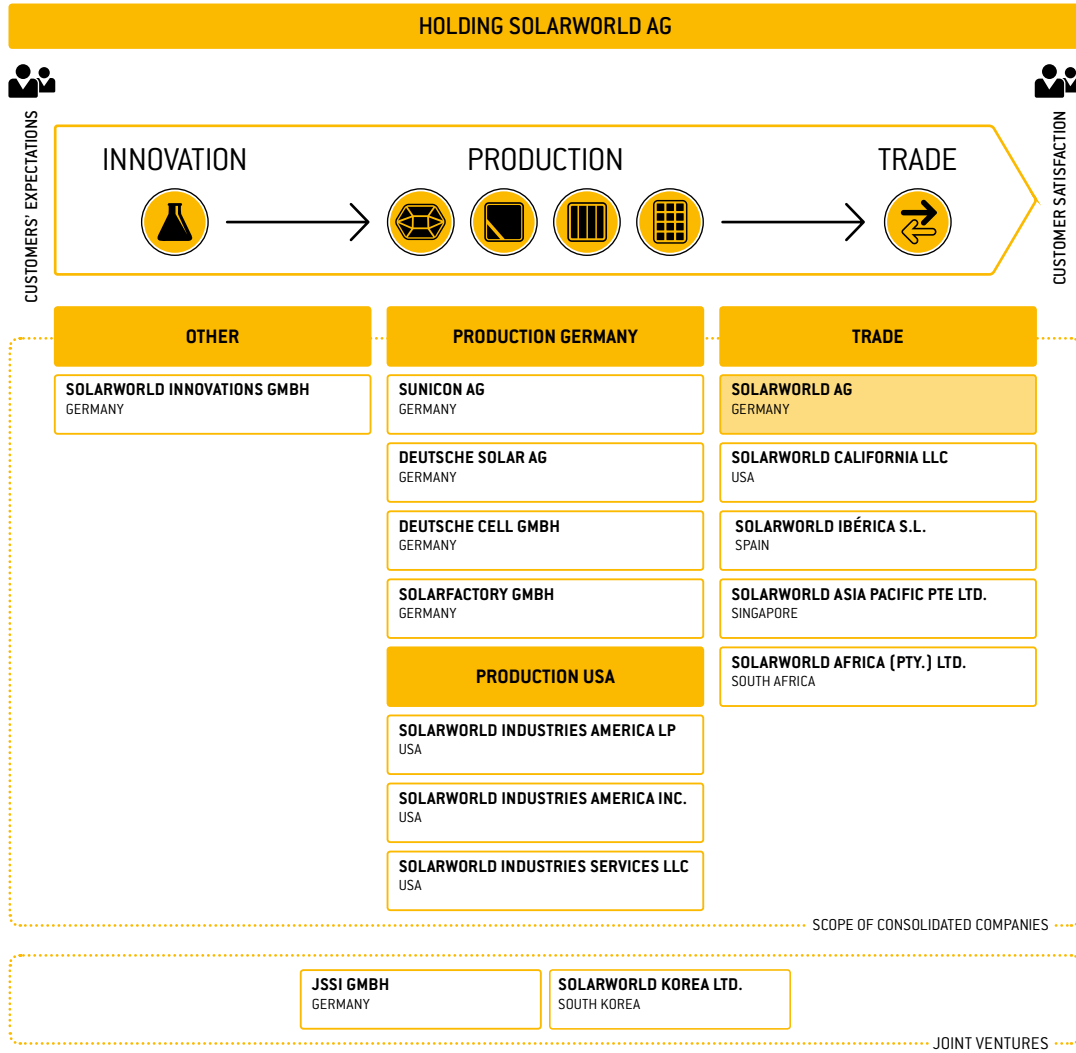
The representation of our strategic management view is also reflected in the adjustment of the segmental structure of the group in the 2009 reporting period, during which regionally connected and fully integrated<sup>9</sup> production and functional areas were pooled. 📄 [Segment structure and stages of the value chain](#) • p. 035 //; ➔ [Segmental structure adjusted](#) • p. 049 //

**CORPORATE TECHNOLOGY 2010+.** Our group-wide and integrated production concept – applying across the value chain and across locations as it does – is based on the most advanced technology. Our objectives: to tap synergy and efficiency potentials throughout the group and to uniformly secure cost, quality, and environmentally relevant competitive advantages worldwide for the “solar module” as the end product. Research and development successes are being brought to bear from the raw material through to the system. For example, in 2009 an increase in cell efficiency and reduction of the wafer thickness helped to cut silicon consumption per watt peak.

Our internal minimum target for 2009 was to compensate for the reduction pursuant to the German Renewable Energy Sources Act (EEG)<sup>9</sup> on an annual average by way of technical progress in the internal cost structure. We attained this target in the year under review. With the additional reduction step as at July 1st, 2010, the necessary progress in photovoltaic<sup>9</sup> efficiency is to be accelerated at the will of the legislator. ➔ [EEG amended](#) • p. 136 // The resulting feed-in tariff reduction cannot be compensated for immediately to that extent by cost reductions in 2010. Nevertheless, SOLARWORLD will redouble its efforts to cut costs. Processes and technologies relating to the expansion steps completed in 2009 and planned for 2010, which have meanwhile once again been improved, will favor SOLARWORLD's technical progress and will again clearly improve cost structures. The factor of size will lead to economies of scale and cost effects via numbers of units and shipments that will provide a competitive edge.

---

07 SEGMENT STRUCTURE AND STAGES OF THE VALUE CHAIN



In this way we will shoulder the pressure of additional cuts of feed-in tariffs in the lead market of Germany. On balance we will offer our customers a sophisticated supply of standardized solar power products of the SOLARWORLD brand.

**CORPORATE BRAND 2010+.** Our brand is one of our most important corporate assets. It enables us to obtain a competitive price for our quality products and to grow in a sustainable fashion. In contrast to established industries, the young solar industry continues to be subject to higher technological, economic and political risks. With an increasing supply, customers tend to look towards quality parameters like yields, stability and longevity. In the capital market, investors also “demand” additional security in order to compensate for the risks. A strong brand not only communicates appropriate product properties to the customer, it also reduces the risk involved in purchasing a solar power plant that constitutes an investment of more than 25 years.

The quality promise that we support with our “Corporate Technology” is additionally backed up by our strong sales function. The SOLARWORLD sales motto is: To be close to, and grow with the customer. However, we will still have to continue to invest in logistics processes in 2010 in order to be able to handle the increased volumes, and especially to cope with the temporary demand peaks caused by funding deadlines in the interest of our customers. Through investments in our brand communication, we will carry this comprehensive quality promise to potential customers and thus secure our worldwide market shares.

## STRATEGIC FINANCING 2009/2010+

We will only be able to continue to reach our objective of expanding the SOLARWORLD market position worldwide successfully and, in so doing, push ahead the use of solar energy, if we manage to continuously make our business activities more efficient and secure our financial requirements through healthy business development. That is why we strive to cover the constant capital needs required for our rapid growth rate largely from our ongoing operations. Our “Corporate Technology” will strengthen our productivity and secure quality – our brand strategy “Corporate Brand” will generate reliable revenues by means of competitive prices.

The financing of the group is handled centrally through SOLARWORLD AG. In order to guarantee favorable financing of the group’s growth, the financing structure of the Holding is strengthened through profit and loss transfer agreements with the German wholly owned subsidiaries. In this way, the profits and losses of the subsidiaries go directly to SOLARWORLD AG. This also includes the control of liquidity and raising loans for the financing of corporate expansion. Also, our shareholder-oriented dividend policy that results from the stock corporation’s profit is placed on a group-wide foundation by this means.

The goal of our financing policy is to have an appropriate liquidity reserve at all times in order to provide the group with the necessary financial flexibility for any required growth steps, to limit financial policy risks, and also to optimize capital costs by way of an adequate capital structure. In addition to the financial requirements that we cover from the operating cash flow, we also make use of different financing instruments depending on the market situation – thus in 2010 we also used the bond market. In this context SOLARWORLD AG benefits from the strong position on the capital market that it has enjoyed since its IPO.





This stable capital structure permits us to grow under our own steam, constantly and with a sense of proportion. ➔ [Scheduled financing measures](#) • p. 146// From today's viewpoint, we are striving for a sound equity ratio<sup>9</sup> in the region of 40 per cent. Even at a time of rapid economic change SOLARWORLD is capable of securing short and medium term investment projects through its careful financing.

## MAJOR BUSINESS EVENTS IN 2009

- ➔ **MARKET POSITION MAINTAINED.** Worldwide we upped our 2009 market share to five (previous year: four) per cent. At the same time we succeeded in reaching our revenue target in spite of the industry-wide drop in prices. Constant cost cutting measures along the individual production stages as well as the procurement situation for major raw materials that was optimized in 2009 have admittedly contributed to a sound result, but were not able to compensate completely for the market-induced price declines. ➔ [Earnings situation](#) • p. 097//
- ➔ **STRATEGIC FOCUS ON BRAND CAMPAIGN.** Pursuant to our strategy, we increased investments in our brand awareness almost fivefold – to about € 10 million. ➔ [Brand investments stepped up – demand effects for our group and our customers](#) • p. 086//
- ➔ **PRODUCTION CAPACITY FULLY UTILIZED.** While many competitors were forced to cut their production and introduce short-time work we increased production to meet the strong demand for SOLARWORLD products at capacity limit. ➔ [Effects of general conditions on development in 2009](#) • p. 079//
- ➔ **INTERNATIONAL PRODUCTION NETWORK EXTENDED.** In line with the market development we placed the investment emphasis in 2009 on the retail business and decided to rapidly expand the group's module production. In this way we will increase capacities from the current 500 MW to 1,250 MW by the end of 2011. The investments, the financing and the infrastructure expansion were initiated in 2009. At the German location of Freiberg we upped our wafer production as planned from 250 MW to 750 MW. ➔ [Facts: Worldwide production capacities](#) • p. 079//
- ➔ **GROWTH FINANCIALLY SECURED.** In order to be able to implement our investment plans, we raised a syndicated credit (€ 200 million) in 2009 and prepared to issue a Eurobond (€ 400 million). We placed this bond successfully on the capital market in January 2010 and as a result, we secured the financial flexibility for further growth right at the beginning of the year. ➔ [Scheduled investments](#) • p. 146//
- ➔ **INFRASTRUCTURE CREATED TO PROMOTE OUR INNOVATIVE STRENGTH.** We strengthened the infrastructure of our international research campus in 2009. The cell and module lab was almost completed and began its development work in the first quarter of 2010. As a result, we consider that our innovative strength has been increased significantly. ➔ [SolarWorld Innovations – Group development “from lab to fab”](#) • p. 091//



08 TARGET ACHIEVEMENT 2009 AND TARGETS 2010+

	TARGETS 2009+	ACTUAL 2009	TARGETS 2010+
<b>FINANCE</b>	<ul style="list-style-type: none"> <li>• <b>Revenue target:</b> Above previous year's level at € 1 billion as the next stage (Premise: Stabilizing macroeconomic development)</li> <li>• <b>Profit or loss result:</b> Depending on which price reduction must and can be compensated for on the cost side</li> <li>• Shareholder participation in corporate success</li> </ul>	<ul style="list-style-type: none"> <li>☑ <b>Revenue:</b> € 1.01 billion (previous year: € 0.9bn)</li> <li>☑ <b>EBIT<sup>9</sup>:</b> € 151.8 million (previous year: € 263.3m) // Market-induced price reductions caused increased pressure on margins in 2009.</li> <li>☑ <b>Dividend<sup>9</sup>:</b> € 0.16/Share (dividend proposal to Annual General Meeting 2010)</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Revenue target:</b> Sustainable exceeding of the previous year's revenue level of € 1 billion (premise: further recovery of the overall economic development combined with growth of the solar market, which will be materially influenced by the pending legal framework on the core market Germany).</li> <li>• <b>Profit or loss target:</b> Depending on the level of price depression on the cost side that has to – and can be – absorbed.</li> <li>• Participation of our shareholders in the success of the company</li> </ul>
<b>CUSTOMERS</b>	<ul style="list-style-type: none"> <li>• Further development of the SOLARWORLD brand</li> <li>• Renewed increase in customer satisfaction</li> <li>• Expansion of international sales also on new markets and in business fields with emphasis on the US market and rural electrification</li> <li>• <b>Foreign quota:</b> Stabilization at previous year's level</li> </ul>	<ul style="list-style-type: none"> <li>☑ Brand awareness in Germany increased: <ul style="list-style-type: none"> <li>• <b>Unaided:</b> 2009: 5.8 per cent; 2009/2010: 7.1 per cent</li> <li>• <b>Aided:</b> 2009: 17 per cent; 2009/2010: 24.9 per cent</li> </ul> <i>Source: EuPD Research/Brandmonitor</i> </li> <li>• In 2009 the following factors were identified for the first time in our annual customer survey: <ul style="list-style-type: none"> <li>• <b>Satisfaction with service:</b> 87.6 per cent "very good" and "good"</li> <li>• <b>Satisfaction with product quality:</b> 99.8 per cent "very good" or "good"</li> <li>• <b>Satisfaction with SOLARWORLD in general:</b> 85.4 per cent "very satisfied" or "satisfied"</li> </ul> </li> <li>☑ Market-induced priority Germany, expansion of German sales team: + 62 per cent</li> <li>• Below previous year at 29 (previous year: 54) per cent. Reason: Market-induced, doubled demand in Germany with slight stagnation on international markets</li> </ul>	<ul style="list-style-type: none"> <li>• Further development of the SOLARWORLD brand</li> <li>• Renewed increase in customer satisfaction</li> <li>• Expansion of international sales also on new markets and in business fields with emphasis on the US market and rural electrification</li> <li>• <b>Foreign quota:</b> Above previous year's level</li> </ul>

	TARGETS 2009+	ACTUAL 2009	TARGETS 2010+
<b>PROCESSES</b>	<ul style="list-style-type: none"> <li>• <b>Minimum target:</b> Compensating for EEG reduction on annual average by way of internal cost reductions (in €/Wp)</li> <li>• ISO 14001 certification<sup>9</sup> of US production locations (earliest 2010)</li> <li>• Capacity expansion to meet rising world demand: <ul style="list-style-type: none"> <li>• <b>Wafers:</b> 1,000 MW year-end capacity</li> <li>• <b>Cells:</b> 450 MW year-end capacity</li> <li>• <b>Modules:</b> 450 MW year-end capacity</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>☑ Production costs cut through technical progress and economies of scale<sup>9</sup> in line with EEG reduction as at 1 January 2009.</li> <li>☑ on schedule</li> <li>• Market-induced adjustment of targets during the year (rise in module demand) from planned wafer expansion towards expansion of production capacities for modules: <ul style="list-style-type: none"> <li>• <b>Wafers:</b> 900 MW</li> <li>• <b>Cells:</b> 450 MW</li> <li>• <b>Modules:</b> 500 MW</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• <b>Minimum target:</b> Compensating for EEG reduction as at 1 January 2010 (9 per cent roof systems; 11 per cent free field systems) via internal cost reduction (in €/Wp) // further 16 per cent planned as at 1 July 2010 not immediately and completely feasible on the cost side in 2010</li> <li>• ISO 14001 certification of all remaining locations including South Korea</li> <li>• ISO 9001 certification in South Korea</li> <li>• Capacity expansion 2010/2011 to meet rising world demand: <ul style="list-style-type: none"> <li>• <b>Wafers:</b> 1,250 MW</li> <li>• <b>Cells:</b> 750 MW</li> <li>• <b>Modules:</b> 1,250 MW</li> </ul> </li> </ul>
<b>EMPLOYEES</b>	<ul style="list-style-type: none"> <li>• Gain and retain qualified skilled and management staff : <ul style="list-style-type: none"> <li>• Employment increase by around 25 per cent</li> </ul> </li> <li>• Strengthening employer attractiveness by Employer Branding</li> <li>• Group-wide executive and talent development</li> <li>• Completion of code of ethics and code of conduct and communication to employees</li> </ul>	<ul style="list-style-type: none"> <li>• 175 new jobs created/ + ten per cent, growth was secured by headcount, parallel investment in process optimization</li> <li>☑ Germany: Study “Great Place to Work” 2009 – 55<sup>th</sup> (previous year: 57<sup>th</sup>) place/ Graduate barometer 15<sup>th</sup> place</li> <li>☑ Group-wide executive and talent development</li> <li>• Postponed to 2010/Internal coordination process not yet completed</li> </ul>	<ul style="list-style-type: none"> <li>• Employment expansion by about 10 per cent</li> <li>• Continuation</li> <li>• Emphasis on group-wide executive development</li> <li>• After approval by the works council the codes will be officially introduced and communicated and included in in-company training and further education</li> </ul>
<b>SOCIETY</b>	<ul style="list-style-type: none"> <li>• <b>Taking into account the interests of stakeholder<sup>9</sup> groups:</b> Voluntary disclosure of sustainability reporting in accordance with GRI, Carbon Disclosure Project<sup>9</sup></li> <li>• Work on further ISO certifications<sup>9</sup> (US sites)</li> <li>• <b>Continuation:</b> <ul style="list-style-type: none"> <li>• Implement awareness-building measures regarding climate and resources protection</li> <li>• <b>Promote research:</b> Expand cooperation with universities and scientific institutes</li> <li>• Contribute to regional development via Solar2World projects (not-for-profit)</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>☑ Plus signature of Global Compact<sup>9</sup></li> <li>☑ Achieved</li> <li>☑ Information via inserts, target group mailings, school projects, cultural sponsoring for protection of species, etc.</li> <li>☑ <b>Research cooperations 2009:</b> 25 (previous year: 21)</li> <li>☑ <b>Project scope:</b> 114 (previous year: 53) kWp</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Taking into account the interests of stakeholder groups:</b> voluntary disclosure of sustainability reporting in accordance with GRI, Carbon Disclosure Project as well as Global Compact</li> <li>• ISO certifications (remaining sites, including South Korea)</li> <li>• <b>Continuation:</b> <ul style="list-style-type: none"> <li>• Implement awareness-building measures regarding climate and resources protection</li> <li>• <b>Promote research:</b> Expand cooperation with universities and scientific institutes</li> <li>• Contribute to regional development via Solar2World projects (not-for-profit)</li> </ul> </li> </ul>

☑ = Target achievement 100 per cent

## CORPORATE MANAGEMENT AND CONTROL

### SUSTAINABLE MANAGEMENT AND CONTROL

**REGULARLY VERIFY STRATEGIC TARGETS.** The Internal Control System (ICS) of SOLARWORLD includes organizational safety measures (carried out through the management systems mentioned below), control (by the departments, group-wide through Controlling) as well as examination (internal audit).

The group strategy, which is directly derived from our [➔ Vision • p. 002//](#), as well as the resulting group targets are determined by the SOLARWORLD Management Board. The verification, control and further development of these strategic targets are implemented in the course of the year in regular strategy meetings attended by the Management Board as well as the Managing Directors and Board Members of the subsidiaries. The divisional targets are derived from the decisions of the management bodies.

Steering and control take place via Group Controlling, which coordinates the alignment and activities of all divisions in the SOLARWORLD Group and reports them to the Management Board. The success factor of corporate transparency takes on strategic importance in view of the growing challenges faced by a group operating in the international market.

The operating units of the SOLARWORLD Group that are defined for control purposes coincide with the reportable operating segments of “Production Germany”, “Production USA”, “Trade” and “Other”.

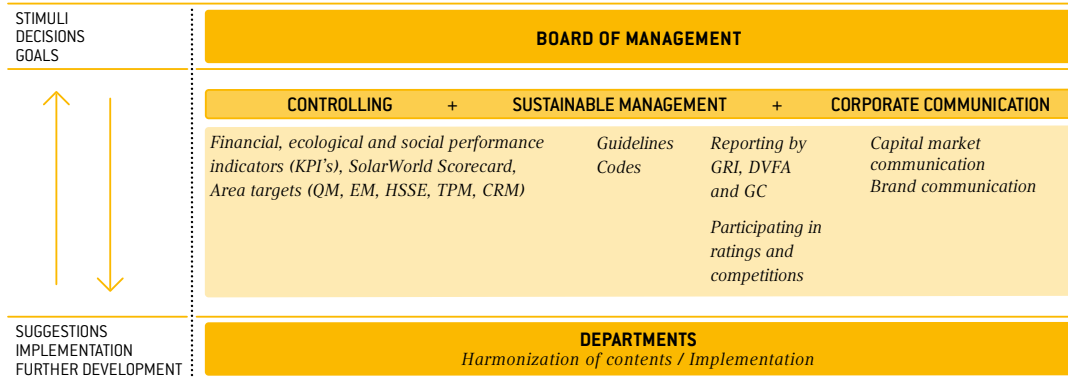
[➔ Segment structure adjusted • p. 049//](#)

The target/actual check and reporting of the primary group indicators such as revenue and EBIT [Ⓜ Selected corporate indicators • Cover//](#) to the Management Board within the time stipulated ensure that developments are identified early, appropriate measures are initiated, and targets are adjusted to the changing market and company developments. The control indicator “Revenue” initially reflects sales and price development while EBIT<sup>9</sup> indicates the development of profitability. In 2009 the control process was determined by these indicators in the sense that price and marketing measures constituted the strategic response to market and sales developments. We achieved stabilization of EBIT by way of economies of scale and volume effects as well as through constant improvement of cost structures in terms of production, trade and procurement. While revenue is the most important indicator in the “Trade” segment, production output is the most important control variable in the “Production” segment.

**INCLUDING ECOLOGICAL AND SOCIAL ASPECTS.** In the year under review the indicator-based control instrument, the SOLARWORLD Scorecard, was further developed and the combining of data from the various group divisions was pushed ahead. The SOLARWORLD Scorecard belongs to the category of Sustainability Balanced Scorecards (SBSC)<sup>9</sup>; this type of scorecard includes not only economic objectives (such as the financial control indicators of revenues, EBIT) but also ecological and social aspects (such as the non-financial control indicators of customer satisfaction, employee identification, CO<sub>2eq</sub>, etc.). We decided in favor of



09 ORGANIZATIONAL INTEGRATION OF SUSTAINABILITY MANAGEMENT IN THE SOLARWORLD GROUP 2009+



GRI, DVFA, GC • cf. Glossary page 261 // QM, UM, HSSE, TPM, CRM • cf. Acronym index page 268 //

Status: 2009

this approach because sustainability<sup>9</sup> is an integral component of the SOLARWORLD group strategy. To this end, group-wide top level objectives, performance drivers<sup>9</sup>, measures and indicators were defined in close coordination with the functional departments.

The framework for our sustainable group control is provided by the SOLARWORLD values as well as by our guidelines. [\[1\] www.solarworld.de/sustainability/](http://www.solarworld.de/sustainability/) They are designed to provide all employees of the SOLARWORLD Group with guidance. The group-wide Code of Conduct, which still was subject to internal examination by the works council at the end of 2009, shall additionally provide actual behavioral recommendations after 2010.

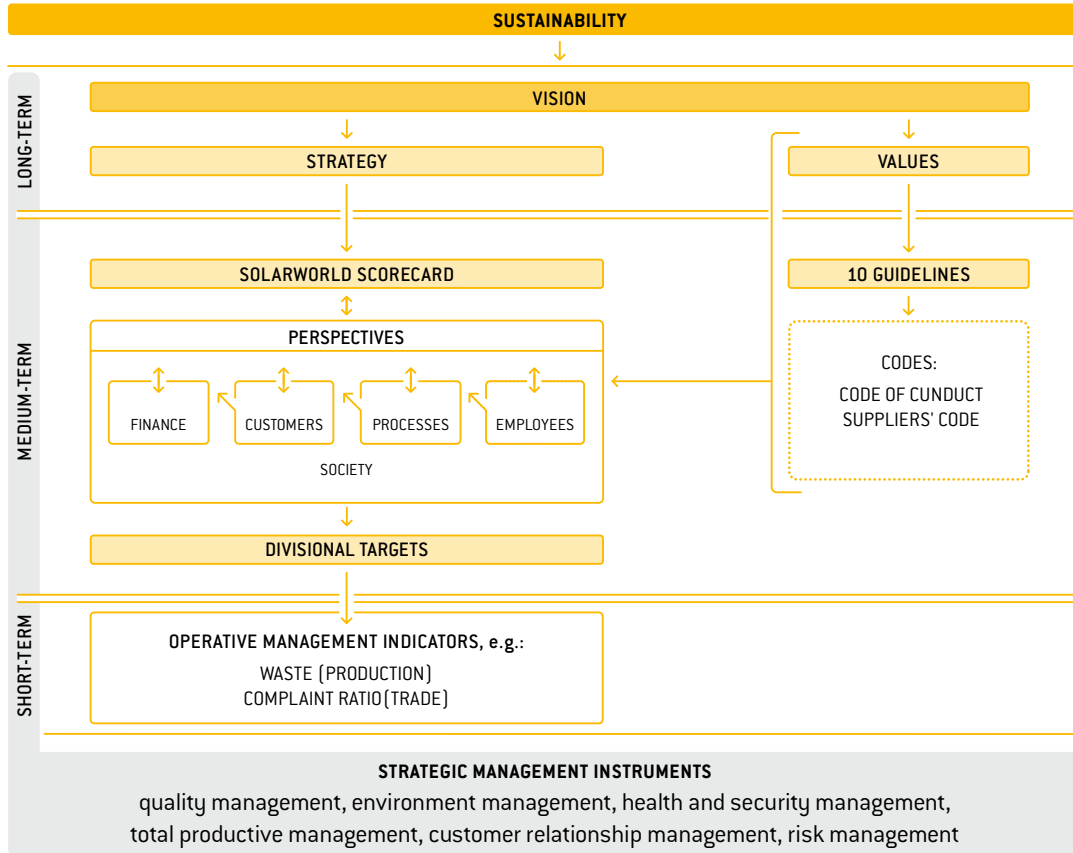
The SOLARWORLD Scorecard contains five perspectives that build directly upon one another: Finance, Customers, Processes, Employees and Society. The cascade-type interlinking of these perspectives guarantees that the causal effects of the individual factors on long-term success will be taken into consideration. In the transition between the perspectives, it is shown how the identified strategic targets and performance drivers of the respective top-level perspectives can be attained. Thus, in the future after the complete implementation of the SOLARWORLD Scorecard we will include all the factors mentioned in our economic corporate management by way of cause-and-effect chains.

Core indicators cannot always be unmistakably assigned to a particular segment. There are cross-segment aspects such as employee satisfaction, financial performance, resources consumption and social commitment. On the other hand, many indicators such as the satisfaction of module and systems customers can be clearly assigned to a particular segment ("Trade").



⑩ SUSTAINABLE CORPORATE MANAGEMENT

As of 2009



The SOLARWORLD Scorecard brings together indicators of the various management instruments. This makes possible a target/actual comparison of financial and non-financial control indicators. In some parts we already managed the company in 2009 according to the goals and indicators of the Scorecard.

⑩ Target achievement 2009 and targets 2010+ • p. 038 //

**EARLY OPERATING INDICATORS – METRICS WITH AN EARLY WARNING CHARACTER.** The definition of early indicators depends on the timeframe of the top-level objective under consideration. If we have long-term corporate success in mind, the performance drivers<sup>9</sup> of the SOLARWORLD Scorecard are our early indicators. In general, internally we speak of early indicators in the case of parameters that are promptly and regularly recorded in the context of the following management systems, and which therefore form the basis for the short-term social policy decisions concerning the control of future developments. There is a large range

of these. In the following, we present examples of selected early indicators for the segments, “Production Germany”, “Production USA” and “Trade”.

**“Production Germany” and “Production USA” segments:**

- In production we continuously record the average output of production (MW/day) and use this as an early indicator for productivity.
- The reject rate must be viewed in direct connection with the previously mentioned indicator. It is also checked continuously in order to enable immediate action if deviating values are observed.

**“Trade” segment:**

- Product quality benchmarks are early indicators of our competitiveness, i.e. comparative tests, also together with customers. Thus, tests are conducted in an FMEA (Fault Possibility and Influence Analysis) mode with pilot customers and measures are being tested in practice.
  - As a medium-term early indicator for our quality claim as well as for the quality of our logistics, we use the rate of customer complaints. As a result of the continuous recording of these data we can correct any deviations and take appropriate counter-measures. Thus, the rate of customer complaints increased slightly in 2009 compared to the previous year. External demand peaks in the fourth quarter led to short-term bottlenecks both in logistics processes and in the availability of some components: We immediately initiated an analysis in the quality assurance area.
  - Early indicators concerning customer satisfaction that are measured annually among wholesalers and specialist partners are explicit customer statements and implicit moods that are reflected after talks and/or special events (meetings, discussion rounds).
  - Early indicators for market trends are also generated on the one hand by personal contacts with specialist partners – for example on the occasion of the annual training of partners – or on the other hand by systematic surveys (interviews). These refer, for example, to product lifecycles or new product versions such as the black module.
-

## INTERLINKING OF MANAGEMENT TOOLS

**Total Productive Management (TPM)**<sup>9</sup> – SOLARWORLD Scorecard: perspectives processes and customers – increases process effectiveness by identifying “best practice” examples (e.g. set-up workshops) and translating them into group-wide process standards. TPM covers not only Production but also Technical Service, Logistics and the IT Department. The objective is to make the working areas leaner and to avoid losses. In the process, internal target values serve as guide figures for cost reduction and efficiency improvement. This continuous improvement forms the very basis for further innovations. One of the target indicators is the identification of “Overall Equipment Efficiency”, which is the product of (machine) availability, performance/efficiency and quality. At the Freiberg location the TPM Cup has been awarded since 2009. It backs up our ideas and innovation management at the site. → *Managing ideas with the company suggestion system* • p. 109// In the course of our growth in the USA we also intensified our local TPM. The 2009 results confirm that TPM leads to cost reductions. In the year under review, for example, we succeeded in saving a double digit million euro amount through specific TPM projects.

**Customer Relationship Management (CRM)**<sup>9</sup> – SOLARWORLD Scorecard: perspective customers – is designed to guarantee the best possible service for our customers. To this end we have to respond to customer needs specifically. For example, in 2009, SOLARWORLD introduced the black module in its product range at the request of customers because, for certain customer groups, visual appeal plays a crucial role. © *Innovation targets and priorities 2009* • p. 092//

**Quality Management (QM)**<sup>9</sup> – SOLARWORLD Scorecard: perspectives customers and processes – ensures the quality of our processes and products by way of defined standards. We define quality on the basis of the demands of our customers. The top-level control variable is the degree of customer satisfaction. In addition, we also permanently check the product quality of our external suppliers within the context of our quality management system. By way of regular audit and evaluation procedures we guarantee the stable and high quality of the products and merchandise of our suppliers. → *Critical selection of suppliers pays off – supplier capital* • p. 080// Almost all SOLARWORLD sites worked according to quality standard ISO 9001 in the year under review. At our US production site Hillsboro we are striving for certification in the first half of the year 2010.

**Environmental Management (EM)**<sup>9</sup> – SOLARWORLD Scorecard: perspectives processes and society – continuously improves our resources utilization. Environmental policy is therefore an integral part of our quality policy. With our integrated quality and environmental management we counteract the risks in the process chain and guarantee group-wide quality, process, and environmental standards with according gains in efficiency. Target agreements and measures derived from these are stipulated annually. In this process we set ourselves internal reduction targets for energy consumption as well as for waste, waste water and CO<sub>2eq</sub> emissions<sup>9</sup> in order to increase our eco-efficiency. Our targets exceed the legal requirements. Since the target values serve internal control purposes, they are not disclosed, but the performance achieved is reported annually.



This is how we again identified our annual CO<sub>2</sub> balance in 2009: According to provisional estimates the greenhouse gas emissions (GHG)<sup>9</sup> in 2009 increased in line with production growth by 44.6 per cent to 139,300 (previous year: 96,300) tCO<sub>2eq</sub>. We were able to improve our average emission intensity, i.e. emissions per produced Watt peak: They dropped to 164.5 (previous year: 175.8) gCO<sub>2eq</sub>/Wp. During the average module life span of 25 years it is possible to save some 4.6 million (previous year: 3.1) million tCO<sub>2eq</sub> with the modules sold by us in 2009. This will help avoid costs for environmental damage amounting to € 318.9 million (previous year: € 219.7m). If you compare the CO<sub>2eq</sub> emissions avoided by our modules with the CO<sub>2eq</sub> emissions caused by our company the result is a positive CO<sub>2eq</sub> balance for SOLARWORLD. The emissions avoided continue to exceed the emissions caused by a factor of 33. ☉ [Report on sustainable corporate management](#) • p. 213//

Within the framework of environmental management, concrete measures are planned and implemented at the individual locations. In addition, we expedited preparations for the introduction of the certification according to ISO 14001<sup>9</sup> in the USA in 2009. In 2010 SOLARWORLD will have group-wide certifications in accordance with both ISO 9001 and ISO 14001.

Internal environmental audits and annual identification of the indicators serve to check the efficiency of the measures and the degree of target achievement. In addition, the Environmental Management Officers report to management on the basis of an internal target/actual comparison.

External environmental communication is handled by Investor Relations in the context of our sustainability reporting in accordance with the Global Reporting Initiative (GRI)<sup>9</sup> and through publication of the data in the annual Carbon Disclosure Project (CDP)<sup>9</sup>. An internal environmental reporting system as well as audit reports and regular management reports ensure that all management levels in the SOLARWORLD Group are well informed. Our environmental reporting system includes a multi-faceted statistics network concerning waste, emissions, waste water and power statistics as well as auxiliary material and consumables statistics. At this point we would like to refer you to the presentation of the ecological performance indicators in the ☉ [Report on sustainable corporate management](#) • p. 213//.

By means of our **Health and Safety Management** – SOLARWORLD Scorecard: perspectives processes and employees – we create safe working conditions for our employees and support them in protecting their health. In 2009 meetings of the occupational safety committees, occupational health screenings, hazard analyses as well as occupational safety and protection seminars were conducted on a regular, group-wide basis. All group companies have their own Safety Officer available. In addition, we employ special safety engineers at the production companies.

Group-wide, health and safety management is rapidly merging. As a result of interaction of the new and older locations, the system is being further developed and standardized. In data collection, differing definitions may occur due to varying general legal conditions. These differences are disclosed in the indicator section of the GRI Report. ☉ [Report on sustainable corporate management](#) • p. 213//



**Risk Management**<sup>9</sup> – SOLARWORLD Scorecard: all perspectives – is a tool that covers all business areas. We record risks group-wide in all departments. Deviations from early indicators show the existence of short- to medium-term risks. By way of the Scorecard performance drivers<sup>9</sup>, we can identify the long-term risks.

➔ *Opportunity and risk management system* • p. 114//

**Internal Auditing** is carried out by an independent staff department attached to the Management Board's Finance unit. The object of the audit is to determine the effectiveness of the Internal Control System (ICS). In addition to being oriented towards the past in the form of the (Re-)Assurance<sup>9</sup>, the Internal Audit also has a consultative and directional function in that it also examines the degree to which our processes make sense.

In addition to the management tools mentioned we prepared the SOLARWORLD Code of Conduct in the year under review and completed it in a version ready for approval. The contents were developed in a group-wide exchange with colleagues. Furthermore, legal compatibility with German and US law was verified. The Code constitutes a voluntary, group-wide behavioral standard regulating our activities in areas where no economic or legal framework conditions have been formulated or where the existing ones are insufficient from the SOLARWORLD point of view. The Code of Conduct is therefore binding on a group-wide basis. It is based on applicable national and international law. At the end of the year under review the Code of Conduct was submitted to the Freiberg works council for general approval.

On the interlinking of our management tools please also see the [@ Sustainable corporate management](#) • p. 042//



# BUSINESS AND GENERAL CONDITIONS

## BUSINESS FIELDS // ORGANIZATION STRUCTURE

### GROUP STRUCTURE AND SEGMENTS

**BUSINESS FIELDS UNCHANGED.** The SOLARWORLD Group is one of the world leaders in the production of crystalline solar power technology. The emphasis of our business activity is on the production and international distribution of solar power applications and systems for roof installation through to large-scale<sup>9</sup> solar plants. We operate both in the area of on-grid<sup>9</sup> (grid-coupled) and off-grid<sup>9</sup> (stand-alone) technology. SOLARWORLD AG and its subsidiaries are involved in research, development, production and distribution at all stages of the solar value chain<sup>9</sup>. The materials cycle is completed by our group's internal recycling facility.

**ORGANIZATION STRUCTURE FOCUSED ON SYNERGIES.** SOLARWORLD AG emerged from the sole proprietorship, Frank H. Asbeck, Ingenieurbüro für Industrieanlagen, founded in 1988. Entry as a joint stock company based on German law in the trade register of the local court in Bonn under the number HRB 8319 took place on 26 March 1999. → *Chronicle • cover inside*// SOLARWORLD AG is listed in the Prime Standard<sup>9</sup> of the Frankfurt Stock Exchange (TecDAX)<sup>9</sup> in Germany.

**SOLARWORLD AG IS THE PARENT COMPANY OF THE SOLARWORLD GROUP.** As the holding company it provides in addition to sales central services for the group. These include service, steering and control functions in the areas of Corporate Business Management (strategic group development, M&A<sup>9</sup>), Finance, Controlling, Investor Relations, Corporate Communications<sup>9</sup> and Marketing. The coordination of production planning and controlling as well as investment planning is also performed centrally by SOLARWORLD AG on behalf of the subsidiaries. Sustainability Management<sup>9</sup> as well as Internal Audit are, as staff functions, directly subordinated to the group Management Board, which in turn performs the task of managing the entire group.

In order to benefit from group-wide synergies<sup>9</sup> and economies of scale<sup>9</sup> we pooled our procurement function centrally at DEUTSCHE SOLAR AG at our German production location of Freiberg. From there, procurement and purchasing are controlled for the entire group. Our research and raw materials activities are also pooled there in subsidiaries such as SOLARWORLD INNOVATIONS GMBH and SUNICON AG.



The company's processes are supported by standard systems employed throughout the group. IT therefore has the entrepreneurial task of using the funds available to SOLARWORLD efficiently for the operational procedures and, in doing so, to secure and optimize the control of our business processes also, and especially, during growth processes.

**LEGAL GROUP STRUCTURE CHANGED.** At the cut-off date (31 December 2009) the SOLARWORLD Group consisted of 25 (previous year: 28) companies. In the year under review the legal group structure was changed as follows:

- As at 1 January 2009 we repositioned our US companies in terms of company law and tax law as well as with reference to their respective fields of activity. By this means we pooled our US business in SOLARWORLD INDUSTRIES AMERICA INC. (previously: SOLARWORLD PROPERTIES INC.) as an operating parent company in a subgroup, thus creating a tax unit in the USA at the same time.
- According to the separation and takeover agreement of 7 April 2009 and the resolutions passed at the Annual General Meetings of the two legal entities, the SolarMaterial division was separated from DEUTSCHE SOLAR AG with retrospective effect as of 1 January 2009 and transferred to SUNICON AG.
- As a wholly owned subsidiary of SOLARWORLD CALIFORNIA LLC, we established SOLARWORLD POWER PROJECTS INC. on 29 April 2009. The company, which is located in Camarillo, California, will be in charge of the development of large-scale projects in the USA, an important market for the future.
- A name change was introduced for JOINT SOLAR SILICON VERWALTUNGS GMBH. The company located in Freiberg was renamed JSSI GMBH at a shareholders' meeting on 5 February 2009.
- Through a share purchase and transfer agreement of 15 July 2009 we took over 100 per cent of our previous joint venture company, SCHEUTEN SOLARWORLD SOLICIUM GMBH. The company is now operated under the name of SOLARWORLD SOLICIUM GMBH.
- In order to accelerate expansion of our Korean joint venture in the expanding Asian solar market, SOLARWORLD increased its share in SOLARWORLD KOREA LTD. in the third quarter of the year in the context of a capital increase of € 13.9 million to 76.5 (previously: 50) per cent. Within one year our joint venture<sup>9</sup> partner has the right to buy 26.5 per cent of the shares held by SOLARWORLD so that, within a short period of time, equal ownership can be re-established. → *Group structure modified • p. 112//*
- We also established SOLARPARK M.E. LTD. as a joint venture together with our partner, SolarPark Engineering Ltd., Seoul, South Korea. It designs and builds manufacturing plants for module production. The company, in which SOLARWORLD holds a 50 per cent stake, was consolidated at equity<sup>9</sup> as of 1 January 2009 for the first time.
- In December 2009 we sold our 35 per cent stake in GÄLLIVARE PHOTOVOLTAIC AB.



With the exception of the changes mentioned above there were no other modifications of our legal group structure. <sup>(6)</sup> [Notes/SolarWorld Group as of 31 December 2009](#) • p. 161//


In addition, we established a liaison office in Grenoble, France, on 15 September 2009. <sup>(7)</sup> [www.solarworld-france.com](http://www.solarworld-france.com)// The local employees will render technical support for ENERGYROOF® products, for which there is a particularly high demand. They will also train installers and distributors.


**SEGMENT STRUCTURE ADJUSTED.** With IFRS' 8 "Operating Segments" coming into force, an adjustment to group segment reporting was introduced in 2009, which now exclusively follows the management point of view and thus focuses on the "solar module" end product on the production and on the trade side. <sup>(8)</sup> [Notes/Basic principles, accounting policies](#) • p. 156// As of 31 December 2009 the operational business was split into four segments that will take global business activities as well as the SOLARWORLD Group organization into account. Instead of the previous segments, there are now four operating segments, "Production Germany", "Production USA", "Trade" and "Other", which reflect the strategic orientation as well as the predominant internal organization, reporting and control structure. <sup>(9)</sup> [Segment structure and stages of the value chain](#) • p. 035//

In the production field the segments include regionally coherent and fully integrated production activities in Germany as well as in the USA (segments "Production Germany" and "Production USA"). The goal we pursue is to tap synergy and efficiency potentials right across the entire value chain and, in doing so, to gain competitive advantages for the end product, i.e. "solar module". The "Trade" operating segment ultimately includes the worldwide distribution of solar modules. Wafer sales to external customers have been placed in the "Production Germany" segment. In the "Other" business segment we have combined different business activities of the group whose financial influence is not, not yet, or no longer crucial to the assets, finance and earnings situation of the group. The comparative figures for the previous year were adjusted in line with the new segment structure.

---

## WORLDWIDE LOCATIONS OF THE GROUP


**PRESENT ON ALL IMPORTANT SOLAR MARKETS.** For years SOLARWORLD AG has been operating a target-oriented location strategy, thanks to which we are present on the most important solar core markets. In all, the group has 13 (previous year: 13) sites (including three permanent establishments, joint ventures<sup>9</sup> and the holding company).  [World Map](#)//

Our main production sites are in Germany and the USA – the two markets which, according to expert calculations, already account for more than 50 per cent of the worldwide solar market today and can also be expected to grow in the future. In addition, further production capacities are available to us in the important future market of Asia at a production site in South Korea, which is jointly operated with our joint venture partner. Apart from the good growth prospects in these markets  [The future solar power market • p. 135](#)// these locations offer us optimum framework conditions for meeting the high SOLARWORLD quality and environmental standards worldwide: a very good infrastructure on the spot, a large number of competent skilled staff, regional political support for renewable energies<sup>9</sup>, a long tradition of silicon processing and/or the semiconductor industry, synergies<sup>9</sup> with regional research establishments as well as a broad spectrum of suppliers.

Our broadly based international sales function is handled by our sales offices in Germany, in the USA, in Singapore, South Africa, and Spain. Due to our presence on the most important solar sales markets we can respond particularly flexibly to short-term developments and also save long transport routes. In this way we accelerate the strategic distribution of our products worldwide.

## IMPORTANT PRODUCTS, SERVICES AND BUSINESS PROCESSES

**OFFERING AN EXTENSIVE AND BROAD ASSORTMENT.** SOLARWORLD AG concentrates exclusively on mono<sup>9</sup>- and poly-crystalline<sup>9</sup> solar power applications. The central business activities of the group are the distribution of modules to the specialist trade and the sale of wafers to the international solar cell industry. In addition, SOLARWORLD offers systems solutions from ready-to-assembly solar kits for private roofs through to large-scale solar power plants for on-grid<sup>9</sup> and off-grid<sup>9</sup> power supply systems.

Above and beyond its product portfolio from raw materials through to turn-key systems, the group also offers recycling<sup>9</sup> as a service to external customers.  [World Map](#)//



## MARKET POSITION // INFLUENCING FACTORS

### COMPETITIVE POSITION AND MAIN SALES MARKETS

**POSITION MAINTAINED IN TOUGHER COMPETITION.** In the year under review competitive pressure on the international solar market rose significantly. It was mainly Chinese competitors who put pressure on the entire industry with their very low product prices. Due to their substantially lower personnel and energy costs as well as their lower interest rates for credits, they were able to produce at much lower overall costs than European manufacturers, for example. Average prices for solar modules dropped by about one third industry-wide in 2009 and pushed down margins<sup>9</sup> at the same time so that many solar companies made losses. Crystalline solar power technology – which is what SOLARWORLD has specialized in – holds a position of market dominance with a market share of some 80 per cent in the total solar market.

Based on its strategic alignment, SOLARWORLD was able to stand its ground successfully in the tougher competitive environment. → [Strategy and action](#) • p. 033// → [Sales strategy proves its worth](#) • p. 082// Despite declining margins we managed to generate a sound result. → [Revenues and earnings development](#) • p. 097// In the year under review we succeeded in increasing our market shares. → [Market position maintained](#) • p. 037//

The solar wafer market – our second most important sales activity – was also characterized by declining prices and increasing competitive pressure in 2009. Thanks to our integrated production strategy, in contrast to competitors, we were able to upgrade wafer volumes that had not been called off into our own solar cells and modules and place them on the market. Some 50 per cent of our SOLSIX® brand wafers were sold to external customers in 2009 while the rest went into our own production.

Our growth on the main sales markets in 2009 closely mirrored the market development. In the year under review we therefore succeeded in increasing our share of group-wide revenue (wafer, module and solar kit business) in Germany to 71 (previous year: 46) per cent. The second strongest sales region for SOLARWORLD was the rest of Europe, with a share of 18 (previous year: 33) per cent, followed by Asia with a share in total group revenue of 7 (previous year: 12) per cent, and the USA with a share of 3 (previous year: 8) per cent.

### LEGAL AND ECONOMIC INFLUENCING FACTORS

**FUNDING MEASURES DRIVE INDUSTRY DEVELOPMENT.** In the year 2009 the international solar industry got significantly closer to grid parity<sup>9</sup>, i.e. the point in time when solar power is less expensive than the price of domestic electricity. The main reason for this was the significant price reduction concerning solar power products in the year under review. Grid parity will probably be reached on the most important solar markets within the next five years. Due to this development as well as the global increase in energy demand and the simultaneously growing scarcity of fossil fuels, solar power will increasingly become an interest-



ing energy alternative worldwide. Presently, however, the solar industry still depends on funding measures in most countries. They are an important driver for the development of this industry of the future.

With its Renewable Energy Sources Act (EEG)<sup>9</sup>, Germany plays a pioneering role internationally in the design of funding conditions: As a result the share of renewable energies in the power mix on this market rose to 16 (previous year: 15) per cent in 2009. Solar power covered about 1.0 (previous year: 0.7) per cent of the German electricity demand. The feed-in tariff<sup>9</sup> for solar power fixed by the EEG for a period of 20 years offers plant operators the necessary security to plan their investments in a solar plant over the long term. The German EEG is one of the so-called minimum price systems, currently the most important and most successful funding instruments for solar power. They create investment security for end customers and offer an important innovation stimulus to industry in the form of the pre-determined reduction of tariffs. If minimum price systems are additionally coupled to market growth it is possible to respond swiftly to current market developments. For example, the German government approved a special reduction of the compensation for solar power at the beginning of 2010 in order to adjust the feed-in tariffs to price development on the market. ➔ *EEG amended • p. 136*// These funding mechanisms are employed in all important European solar markets such as Germany, Italy, France, the Czech Republic, Belgium, Greece, and Spain.

Another type of promotion for renewable energies comes in the form of tax credits and investment grants that are given as an initial investment in a solar power plant. Such mechanisms have the advantage that end customers get special relief during this capital-intensive phase. Unlike the minimum price systems, however, these funding measures do not offer any innovation incentives for the solar industry to provide their modules not only at lower prices but also with an optimized output. The output capacity that a solar plant delivers over many years is not taken into consideration in this type of funding. Many countries such as the USA, France, or Greece use these funding mechanisms as supplementary incentives at regional level and combine them with others.

**CREDIT PROGRAMS ARE GAINING IN IMPORTANCE.** In addition to the funding mechanisms just described the granting of credits has become an important factor in the development of the solar power market in the year under review. The persistently tense situation on the financial market makes it difficult for investors to raise the necessary external financing, above all in the field of large-scale projects. Countries like Germany, where there are guaranteed credits such as the program for renewable energies<sup>9</sup> offered by the Reconstruction Loan Corporation (KfW), were less affected by this phenomenon. For this reason, the USA for example approved a new program for financing solar power projects with borrowed funds at the end of 2009. ➔ *Promotion programs take effect • p. 137*//





## STATEMENT ON THE CORPORATE GOVERNANCE OF THE COMPANY

053

### CORPORATE GOVERNANCE WITHIN SOLARWORLD

**STAKEHOLDERS INTEGRATED INTO DIALOGUE.** We interpret Corporate Governance<sup>9</sup> as responsible management and control of the company geared to the long-term and sustainable creation of value. In comparison with the “old economy”, we are a fairly young company in the middle of a dynamic market process. Our management philosophy does not exclusively follow the principle of being faster in and closer to the market – it also takes into consideration the interests of our investors, business partners, employees and the public. It is additionally based on the need to continuously confirm the trust placed in us by all stakeholder<sup>9</sup> groups, and to further develop Corporate Governance within the group. In doing so SOLARWORLD AG is guided by the German Corporate Governance Code (GCGC)<sup>9</sup>.

According to section 4.1.1 GCGC the interests of our shareholders, our employees and other groups associated with the company are taken care of by the Board of Management in managing the company. To this end we included a new contact form on our homepage in the year under review. [\[1\] www.solarworld.de/stakeholders](http://www.solarworld.de/stakeholders)// For more information on our dialogue with our stakeholders, please go to [☉ Report on sustainable corporate management • p. 213//](#).

For successful corporate management and control we rely on the close and trustful cooperation of the Board of Management and the Supervisory Board. [☞ Report by the Supervisory Board 2009 • p. 022//](#)

### CORPORATE GOVERNANCE REPORT 2009

**AGAIN AN UNRESTRICTED DECLARATION OF COMPLIANCE FROM THE BOARD OF MANAGEMENT AND SUPERVISORY BOARD.** As has already been the case since 2002, the Board of Management and the Supervisory Board issued a declaration of compliance<sup>9</sup> in the year under review. This is in absolute agreement with the recommendations made in the GCGC version dated 18 June 2009 as published on 5 August 2009. Pursuant to paragraph 161 German Stock Corporation Act (AktG), the declaration was made permanently available on our Internet homepage. [\[1\] www.solarworld.de/investorrelations/compliancedeclaration](http://www.solarworld.de/investorrelations/compliancedeclaration)//

Part of our philosophy concerning Corporate Governance also involves the responsible handling of risks. The Board of Management performs its duty of care by way of appropriate risk management and internal risk controlling. It regularly informs the Supervisory Board about existing risks and their development. [☞ Opportunity and risk management system • p. 114//](#)

**MANAGEMENT AND CONTROL UNCHANGED IN 2009.** As a German stock corporation, SOLARWORLD AG has a dual management and control structure with a separation in personnel between the management and the control/monitoring functions. The Board of Management manages the company in line with the pertinent legislation (paragraphs 77, 78 AktG), Articles of Association (paragraphs 5, 6) and Rules of Procedure un-

der its own responsibility and develops the appropriate strategic direction. It is appointed by the Supervisory Board. This, according to paragraphs 95 (1), 96 (1), 101 (1) AktG, is composed of shareholder representatives and is elected by the Annual General Meeting (AGM), which is, however, not obliged to comply with the election proposal. The legal basis for the work of the Supervisory Board of SOLARWORLD AG is formed by the Articles of Association and the Rules of Procedure. The Supervisory Board appoints and supervises the Board of Management and advises it on fundamental decisions. → [Notes/Members of the Management and the Supervisory Boards • p. 207//](#)

The Board of Management of SOLARWORLD AG as well as its respective responsibilities have remained unchanged in the course of fiscal year 2009. The Board of Management continues to consist of the following four members: → [Photo of Board of Management • p. 014//](#)

→ **Frank H. Asbeck** (Chairman and Chief Executive Officer),

As founder of the company, he is responsible for corporate development, public relations and also energy and corporate policy

Initial appointment: 1999

End of current appointment period: 9 January 2014

→ **Frank Henn** (Chief Sales Officer),

Responsible for the coordination of national and international sales

Initial appointment: 2004

End of current appointment period: 31 May 2013

→ **Boris Klebensberger** (Chief Operating Officer)

Responsible for the QM<sup>9</sup> and EM<sup>9</sup> areas as well as for production management and controlling; also in charge of control of the producing subsidiaries as well as Research and Development

Initial appointment: 2001

End of current appointment period: 23 September 2011

→ **Philipp Koecke** (Chief Financial Officer)

Responsible for the areas Controlling, Investor Relations/Corporate Communications, IT, HR, Accounting, Group Accounting and Internal Audit

Initial appointment: 2003

End of current appointment period: 30 April 2012



The composition of the Supervisory Board also remained unchanged in the year under review with the Board continuing to consist of three members: ➔ [Photo of Supervisory Board](#) • p. 020 //

- ➔ **Dr. Claus Recktenwald** (Chairman of the Supervisory Board)
- ➔ **Dr. Georg Gansen** (Deputy Chairman of the Supervisory Board)
- ➔ **Dr. Alexander von Bossel** (Member of the Supervisory Board)

Taking into consideration the functions of the Chairman of the Supervisory Board in two cases that count double, Dr. Recktenwald holds a total of eight mandates, with the currently permissible total number of mandates being ten. Dr. Gansen has four mandates, and Dr. von Bossel holds two mandates. The Supervisory Board reports on its activities in fiscal year 2009 in the present Annual Group Report. ➔ [Report by the Supervisory Board](#) • p. 022 // There, you will also find further information on implementation of the GCGC. As the Supervisory Board of SOLARWORLD AG continues to be made up of three members the instructions in section 5.3 concerning the formation of committees do not apply. Furthermore, the entire Supervisory Board deals with Management Board matters including the compensation system, and performs the required examination and supervisory tasks. In this context the cap ruling on severance pay as per section 1.2.3 will also be observed. The age limit to be imposed according to section 5.1.1 GCGC is not applied to the SOLARWORLD Board of Management due to its age structure.

**TRANSPARENCY GUARANTEED VIS-À-VIS SHAREHOLDERS AND THE PUBLIC.** Our goal is to inform all our target groups transparently and promptly in keeping with the principle of equal treatment. All our information is communicated on the Internet in a freely accessible way. [www.solarworld.de](http://www.solarworld.de) // The Investor Relations section of the SOLARWORLD Internet page was revised and given a clearer structure in early 2009. By this means, we ensure a high degree of user friendliness in German and English, pursuant to section 6.8 GCGC. ➔ [Investor Relations work improved](#) • p. 067 //

**AT THE ANNUAL GENERAL MEETING OUR SHAREHOLDERS MAY EXERCISE THEIR RIGHTS AND CAST THEIR VOTES.** For shareholders who are unable to attend the AGM personally, the possibility exists to exercise voting rights through a personally selected proxy or an authorized representative of our company who will act on their instructions. The selected proxy or representative will also be accessible to our shareholders during the AGM. All information concerning the AGM can be downloaded from our website at an early point in time. Pursuant to paragraph 3 (2) of our Articles of Association, information such as invitations to the AGM may also be communicated to shareholders by way of electronic media. Pursuant to the new version of the law on implementation of the shareholder directive (ARUG) of 30 July 2009, the Board of Management and the Supervisory Board will propose appropriate changes to the Articles of Association to the AGM.



**CAPITAL MARKET LAW AND COMPLIANCE DUTIES CONSTANTLY REVIEWED.** Adhering to and implementing the capital market laws and disclosure rules designed to strengthen investor protection (compliance<sup>9</sup>) is one of the important management functions of the Board of Management. It is performed by a central Compliance Office that is attached to the office of the Chief Financial Officer. An external legal clearing office examines group-wide facts with respect to their ad-hoc relevance. With regard to the legal ban on insider trading pursuant to paragraph 14 of the German Securities Trading Act (Wertpapierhandelsgesetz = WpHG), members of the Board of Management and employees for whom access to insider information is indispensable, as well as service providers and project participants, are listed in an Insider Register.

In 2009 there were six voting rights notifications pursuant to paragraphs 21, 26 WpHG for exceeding or falling short of the voting rights thresholds defined by law. ➔ *The shareholder structure of SolarWorld AG changed as of 31 December 2009 • p. 066*// The share ownership on the part of members of the SOLARWORLD AG Board of Management amounted to a total sum of 25 per cent of the shares issued as at 31 December 2009. The members of the Supervisory Board did not hold any shares in the company. Pursuant to paragraphs 15a WpHG, members of the Board of Management and the Supervisory Board as well as persons closely related to them are legally obliged to disclose the acquisition and sale of SOLARWORLD AG shares or financial instruments derived from them if the value of the transactions conducted within one calendar year exceeds the sum of € 5,000. No such transactions were disclosed to SOLARWORLD AG in the course of the year under review. An annual document pursuant to the Securities Prospectus Act (WpPG) provides information on all publications that occurred in the year 2009 on our Internet page subsequent to publication of the Annual Financial Statements on 25 March 2010. [www.solarworld.de/investorrelations/jaehrl-dokument//](http://www.solarworld.de/investorrelations/jaehrl-dokument//)

## REMUNERATION REPORT

With this remuneration report, the Supervisory Board and the Management Board of SOLARWORLD AG again comply with the recommendations of the German Corporate Governance Code (GCGC)<sup>9</sup> in its most recent version of 18 June 2009. While section 3.10 of the GCGC requires a Corporate Governance report, which is included in this Annual report under a separate headline and, incidentally, is also covered in the Report by the Supervisory Board, section 4.2.5 of the GCGC requires an explanation concerning the remuneration system for Management Board members, including disclosure of individualized remuneration, and section 5.4.6 requires that the remuneration for members of the Supervisory Board be reported individually in the Corporate Governance Report, broken down by components, including remuneration paid and benefits extended for services provided individually, in particular advisory and agency services.

**MANAGEMENT BOARD REMUNERATION.** The annual Management Board remuneration agreed with all Management Board members and determined in terms of its structure by the Supervisory Board of SOLARWORLD AG consists of fixed and variable components. It is based on paragraph 87 of the German Stock Corporation Act, according to which total remuneration for an individual Management Board member must be commensurate with his tasks and the situation of the company. It also meets the require-



ments of the GCGC and reflects special features of the company in the context of the group, as well as the individual performance in the HR and functional areas, taking the relevant environment into account. The financial situation of the SOLARWORLD Group is also taken into consideration. The financial situation, in turn, determines the profit distribution possibilities which form the basis for the variable components of Management Board remuneration.

The Management Board remuneration also meets the requirements of the German Act on the Appropriateness of Management Board Remuneration, adopted by the federal parliament on 18 June 2009. Account is taken both of the individual performance of a Board member and the customary remuneration in the sector as well as sustainable corporate development. The new deductible for Management Board members of at least 10 per cent of the respective loss and at least 150 per cent of the fixed annual remuneration was already agreed as of 1 January 2010 for D&O insurance policies. Other than that, the SOLARWORLD AG Management Board remuneration was determined by the principles already applying prior to the German Act on the Appropriateness of Management Board Remuneration coming into force.

As fringe benefits, D&O insurance costs are paid for all Management Board members, who are also provided with the use of an upper mid-range company car. Furthermore, all work-related out-of-pocket costs, expenditure and expenses are refunded pursuant to paragraph 670 of the German Civil Code. In addition, the Management Board members in charge of Finance (CFO), Operations (COO), and Sales (CSO), receive grants towards their health insurance. The Chairman of the Management Board (CEO) also receives remuneration as the Supervisory Board chairman of DEUTSCHE SOLAR AG and SUNICON AG.

In the event of premature termination of service contracts, Management Board contracts do not contain any severance pay agreements. The severance pay cap recommended in the latest version of the GCGC dated 6 June 2008 has been taken into account with regard to new appointments made since then. In the follow-up contracts for the COO, the CEO and the CFO, this was already implemented with effect from 1 September 2008, 10 January 2009, and 1 May 2009, respectively.

There are no separate pension entitlements. Management Board members are therefore also allowed to convert part of their remuneration into company pension schemes.

The fixed annual remuneration for Management Board members is payable in twelve monthly installments at the end of each month. In addition, every Management Board member receives a variable, performance-related special payment that is equivalent to an individually negotiated euro amount per cent and share of the dividend distributed to shareholders. This amount is paid within four weeks of the AGM at which the underlying dividend<sup>9</sup> distribution was approved. The individualization of Management Board remuneration presented below relates, on the one hand, to fixed remuneration due and paid in 2009. On the other hand, it also covers variable remuneration relating to fiscal year 2009 which, however, can only fall due after the next Annual General Meeting and depends on approval of the profit appropriation proposal submitted by management, according to which 16 eurocents are to be distributed per share.

---

Variable remuneration has been capped so that a Management Board member must not be paid more than a multiple of the fixed remuneration previously agreed with the Supervisory Board per fiscal year. For the CFO and the CSO, the cap is three times the fixed amount (the variable component amounts to up to 200 per cent of the fixed remuneration), and for the CEO and COO, it is four times the fixed amount (the variable component may not exceed 300 per cent of the fixed remuneration).

At the Annual General Meeting of 20 May 2009, our shareholders signaled where they see the appropriate level of management salaries in Germany. In accordance with a proposal concerning a resolution to cap Management Board remuneration, it was resolved that the remuneration for a Management Board member be capped at 20 times the average pay in the SOLARWORLD Group. The calculation is based on gross wages and salaries in each completed fiscal year, divided by the headcount at year-end. This regulation will apply with immediate effect until an AGM decides otherwise. It is based on a Board request in accordance with paragraph 119 (2) of the German Stock Corporation Act. This was required to justify the AGM's competence. At the end of the day, it therefore ultimately constitutes a self-commitment by the incumbent Board implemented with the consent of the Supervisory Board, and is to be taken into account in future employment contracts. Remuneration components affected are the variable and fixed part of the respective annual income. The only components not affected are inventors' compensation, compensation for Supervisory Board mandates and other sideline payments or payments in kind. In accordance with section 4.2.2, the level and structure of remuneration are continually reviewed by the Supervisory Board. In addition, they are discussed at an annual meeting dealing with Board matters and agreed upon and updated in agreement with each Board member.

---

## ⑪ MANAGEMENT BOARD REMUNERATION // IN €

	Non-performance-related		Performance-related	Total
	Fixed	Other remuneration	Variable	
Frank H. Asbeck CEO	280,843.32		810,000.00*	[1,090,843.32]
				<b>988,146.00</b> Capping of the management remuneration pursuant to a resolution passed by the AGM on 20 May 2009
		29,500.00 (Supervisory Board remuneration, DEUTSCHE SOLAR AG, incl. attendance fees of € 4,500.00)		<b>46,900.00</b>
		17,400.00 (Supervisory Board remuneration, SUNICON AG, incl. attendance fees of € 2,400.00)		
Previous year	280,843.32	29,500.00 (Supervisory Board DEUTSCHE SOLAR AG incl. attendance fees of € 4,500.00)	810,000.00	1,137,343.32
		17,000.00 (Supervisory Board remuneration, SUNICON AG, incl. attendance fees of € 2,000.00 )		
Philipp Koecke CFO	162,821.04	3,205.20 (grants towards health insurance)	256,000.00*	<b>422,026.24</b>
Previous year	136,154.40	2,576.16 (grants towards health insurance)	240,000.00	378,730.56
Boris Klebensberger COO	262,407.64	2,692.71 (grants towards health insurance)	560,000.00*	<b>828,094.61</b>
		2,994.26 (inventor's compensation)		
Previous year	174,423.32	31,515.64 (Management Board, DEUTSCHE SOLAR AG),	559,599.99**	770,248.49**
		2,379.90 (grants towards health insurance)		
		2,329.64 (inventor's compensation)		
Frank Henn CSO	174,337.47	3,583.14 (grants towards health insurance)	256,000.00*	<b>433,920.61</b>
Previous year	174,337.43	3,375.00 (grants towards health insurance)	240,000.00	417,712.43
<b>Total</b>	<b>880,409.47</b>	<b>59,690.31</b>	<b>1,882,000.00*</b>	<b>2,719,087.46</b>
Previous year	765,758.47	88,676.34	1,849,599.99**	2,704,034.80**

\* Resolution on profit appropriation, Annual General Meeting 2010

\*\*The previous year's amounts for Boris Klebensberger have changed: In 2009, arrears of variable remuneration in the amount of € 34,599.99 were paid for 2008.

**SUPERVISORY BOARD REMUNERATION.** The AGM of SOLARWORLD AG on 25 May 2005 resolved on Supervisory Board remuneration consisting of a fixed component, performance-related special remuneration, fringe benefits and the reimbursement of expenses. This resolution took effect as of 1 January 2005 and was to apply for subsequent years unless a resolution to the contrary was passed by another AGM for the future.

In accordance with paragraph 113 (1) of the German Stock Corporation Act, Supervisory Board remuneration must be appropriate in relation to the tasks of the Supervisory Board members and the position of the company. The SOLARWORLD AG AGM also resolved that the company would pay the premiums for appropriate insurance cover against the legal liability resulting from Supervisory Board activities (D&O insurance). Since the Supervisory Board also follows the GCGC recommendation of also applying the deductible that is mandatory only for the Management Board to the Supervisory Board, the terms and conditions of the relevant D&O insurance will be adjusted accordingly as of 1 July 2010.

Accordingly, members of the Supervisory Board receive annual remuneration of € 17,500.00 respectively; the vice chairman of the Supervisory Board receives one and a half times that amount, i.e. € 26,250.00, and the chairman of the Supervisory Board receives twice that amount, i.e. € 35,000.00, plus, in each case, value-added tax if applicable. This remuneration was paid in 2010 retroactively for fiscal year 2009. In addition, each member of the Supervisory Board received a lump sum allowance of € 250.00 each to cover expenses per meeting and AGM attendance, which in 2009 was triggered eight times and added up to a total of € 2,000.00, again plus value-added tax if invoiced, which, however, the company was able to deduct as input tax. In addition, every member of the Supervisory Board received and receives performance-related special remuneration, originally determined as € 150.00 per dividend cent with capital stock consisting of 6,350,000 shares, subject to the proviso that the basic amount shall rise in line with an increase in the number of shares. As the number of shares rose from 6,350,000 to 111,720,000, a multiplier of 17.5937 applies to this fiscal year, triggering a basic amount of € 2,639.055. If the next AGM resolves on a dividend<sup>9</sup> of 16 eurocents per share, the variable special remuneration will be € 42,224.80 (previous year: € 39,585.83) per Supervisory Board member. However, at its meeting on 6 August 2007, the SOLARWORLD AG Supervisory Board submitted a “Self-Commitment Declaration” entailing a partial renunciation. It is linked to the agreements made with the Management Board members on variable remuneration and reads as follows: “As long as the resolution of the AGM of 25 May 2005 applies to the remuneration of the Supervisory Board, the Supervisory Board members accept that variable remuneration due to them be capped to double the fixed annual remuneration due to them. Consequently, even if due to special results for the year and/or a further increase in the relevant number of shares, more than double the fixed annual remuneration could be claimed as variable special remuneration, the total amount paid per fiscal year will not exceed three times the fixed annual remuneration. The Supervisory Board thus agrees to (and among itself) the cap regulation provided for in section 4.2.3, penultimate paragraph of the German Corporate Governance Code.”





The performance-related special remuneration is also paid plus value-added tax if applicable. Payment is due after the close of the AGM that resolved on the underlying dividend distribution. The variable remuneration shown in the following list for 2009 will therefore only fall due and be paid when the AGM approves the dividend proposed by the Management Board and Supervisory Board.

With regard to the disclosure recommended in the last paragraph of section 5.4.6 of the GCGC, it is pointed out that the chairman of the Supervisory Board of SOLARWORLD AG is a partner in the law firm of Schmitz Knoth Rechtsanwälte. Essentially via other partners and employees of the law firm, this firm provides legal advice and representation services to the SOLARWORLD Group as well as international coordination services that are necessary in this context.

Concerning the provision of services for SOLARWORLD AG in 2009 – the year under review – the law firm of Schmitz Knoth Rechtsanwälte charged € 469,244.87, excluding VAT and tax-free expenses. For the 2009 service period, subsidiaries incurred additional attorney's fees, which amounted to € 124,312.20 for DEUTSCHE SOLAR AG, € 11,754.60 for DEUTSCHE CELL GMBH, € 5,538.07 for SOLAR FACTORY GMBH, € 2,059.20 for SOLARWORLD INDUSTRIES DEUTSCHLAND GMBH, € 15,446.60 for SUNICON AG and € 44,283.20 for SOLARWORLD INNOVATIONS GMBH. All individual items and the total of € 672,638.74 (previous year: € 591,301.76) paid by the group were approved by the Supervisory Board of SOLARWORLD AG, a resolution on commissioning the relevant work was adopted, and the necessity and appropriateness of the work were confirmed at the meeting on 15 March 2010, which was convened to adopt the annual accounts.

In conclusion, it is stated that the Supervisory Board members Dr. Claus Recktenwald and Dr. Georg Gansen are concurrently and respectively Deputy Chairmen of the Supervisory Board of DEUTSCHE SOLAR AG. Frank H. Asbeck, CEO of SOLARWORLD AG, is chairman of that Supervisory Board. Remuneration for the Supervisory Board of DEUTSCHE SOLAR AG was increased to an annual amount of € 25,000.00 at the AGM of 6 December 2007. That amount also applied to each Supervisory Board member in 2009, plus an attendance fee of € 750,00 per meeting reported in the list provided below. With six meetings charged in 2009, the total amount per Supervisory Board member was € 29,500.00 net, which will only fall due and be paid upon completion of the fiscal year, as is the case with all other remuneration for Supervisory Board members.

Dr Claus Recktenwald, Dr. Georg Gansen and Frank H. Asbeck are also members of the Supervisory Board of SUNICON AG. The company's AGM on 18 December 2008 resolved on Supervisory Board remuneration of € 15,000.00 net per Supervisory Board member, to apply to fiscal year 2008 for the first time and not payable until 1 January 2009, as is the attendance fee of € 400.00. With five meetings charged, the total amount per Supervisory Board member will be € 17,000.00, plus value-added tax.

---

## ⑫ SUPERVISORY BOARD REMUNERATION // IN €

		Non-performance-related			Performance-related	Total
		Fixed annual remuneration	Attendance fee	Other remuneration	Variable special remuneration	
Dr Claus Recktenwald Chairman	For 2009, paid in 2010	35,000.00	2,000.00	29,500.00 (Supervisory Board remuneration, DEUTSCHE SOLAR AG, incl. attendance fees of € 4,500.00) 17,400.00 (Supervisory Board remuneration, SUNICON AG, incl. attendance fees of € 2,400.00)	42,224.88*	126,124.88*
	For 2008, paid in 2009	35,000.00	2,500.00	29,500.00 (Supervisory Board remuneration, DEUTSCHE SOLAR AG, incl. attendance fees of € 4,500.00) 17,000.00 (Supervisory Board remuneration, SUNICON AG, incl. attendance fees of € 2,000.00)	39,585.83	123,585.83
Dr Georg Gansen Deputy Chairman	For 2009, paid in 2010	26,250.00	1,750.00	29,500.00 (Supervisory Board remuneration, DEUTSCHE SOLAR AG, incl. attendance fees of € 4,500.00) 17,400.00 (Supervisory Board remuneration, SUNICON AG, incl. attendance fees of € 2,400.00)	42,224.88*	117,124.88*
	For 2008, paid in 2009	26,250.00	2,500.00	29,500.00 (Supervisory Board remuneration, DEUTSCHE SOLAR AG, incl. attendance fees of € 4,500.00) 17,000.00 (Supervisory Board remuneration, SUNICON AG, incl. attendance fees of € 2,000.00)	39,585.83	114,835.83
Dr. Alexander von Bossel Member	For 2009, paid in 2010	17,500.00	2,000.00		35,000.00*	54,500.00*
	For 2008, paid in 2009	17,500.00	2,500.00		35,000.00	55,000.00
<b>Total</b>	<b>For 2009, paid in 2010</b>	<b>78,750.00</b>	<b>5,750.00</b>	<b>93,800.00</b>	<b>119,449.76*</b>	<b>297,749.76*</b>
Previous year	For 2008, paid in 2009	78,750.00	7,500.00	93,000.00	114,171.66	293,421.66

\* Resolution on profit appropriation, Annual General Meeting 2010

# BUSINESS DEVELOPMENT 2009

063

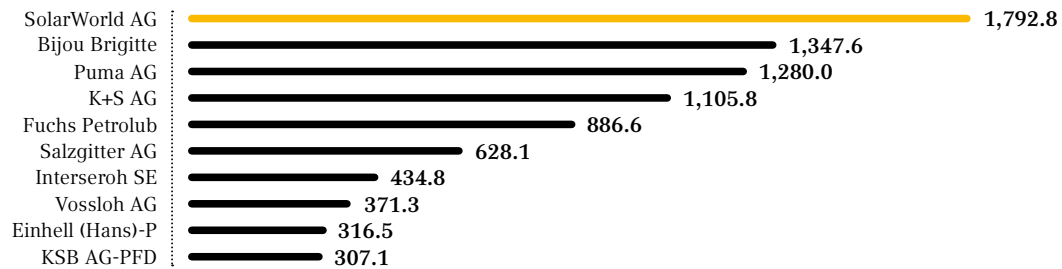
## STOCK 2009

### HISTORICAL PRICE DEVELOPMENT OF SOLARWORLD STOCK

**POSITIVE DEVELOPMENT SINCE IPO.** On 8 November 2009 SOLARWORLD celebrated its tenth stock exchange anniversary. Since the IPO until the cut-off date 31 December 2009, a stock price increase of 1,683 per cent was recorded. This means that the SOLARWORLD stock showed the best performance of all listed German companies in the Prime and General Standard in the last ten years. By comparison, the DAX generated growth of only 19 per cent in the same period.

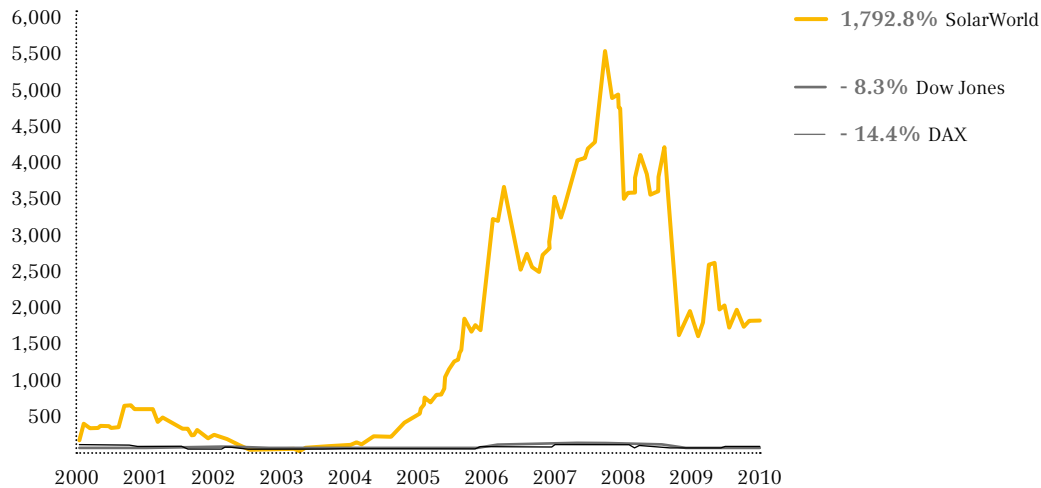
#### ⑬ PERFORMANCE OF THE TEN BEST GERMAN STOCKS // IN PER CENT

*Period: 31 December 1999 to 31 December 2009, Source: Bloomberg, Handelsblatt, 2010*



#### ⑭ PERFORMANCE OF SOLARWORLD STOCK IN THE LAST TEN YEARS // IN PER CENT

in comparison to DAX and DowJones\*, Source: Xetra, 2010



\* The TecDAX was not launched until 2003 as the successor to the Nemax Index. It can therefore not be used as a comparative index for the last ten years.

The issue price of our stock amounted to € 13.75 in 1999. By way of several capital increases from the company's own funds through conversion of part of the revenue reserves created at the time, the capital stock<sup>9</sup> of the company increased through the issue of bonus shares. As a result, the number of shares increased by a factor of 16 to the current total of 111.72 million units, while the stock price was respectively divided by a factor of 16. Corrected for these effects, the actual issue price of the SOLARWORLD stock amounted to € 0.86. On 31 December 2009, the stock price was € 15.33.

Our positive development in the capital market reflects the successful corporate growth achieved by SOLARWORLD. Thus, our revenues went up from € 5.4 million in 1999 to € 1.01 billion in the year under review. This is equivalent to a growth rate of more than 18,603 per cent within a period of ten years. Our EBIT<sup>9</sup> also showed a multiple increase from € 0.07 million in the year 1999 to € 151.8 million in 2009.

➔ *Chronicle • cover inside*// Our shareholders have consistently participated in the success of the company: The dividend distribution rose from € 1.3 million in the year 2000 to € 16.8 million in the year under review.

### CAPITAL MARKET DEVELOPMENT 2009

**MORE STABLE DEVELOPMENT IN SECOND HALF OF 2009.** Capital markets were still impacted by the financial crisis during the first half of 2009. Along with growing stabilization of the economy in the second half of the year and the positive forecasts for an economic recovery in 2010, the future expectations of investors also

improved so that they invested again more readily. Consequently, the DAX rose in spite of a strong decline in the first quarter by a total of 22 (previous year: -40) per cent and reached a value of 5,957 points on the 31 December 2009 cut-off date. The TecDAX<sup>9</sup> technology index increased even more substantially by 64 (previous year: -50) per cent ending the year 2009 at 818 (31 December 2008: 483) points. The Dow Jones Industrial Index, the most important international lead index, gained 20 (previous year: -34) per cent in the fiscal year, achieving 10,549 (31 December 2008: 8,668) points at the end of the year. The sustainable stock indices also recovered over the course of the year. The ÖkoDAX<sup>9</sup> grew by 15 (previous year: -62) per cent to 314 points and the Dow Jones Sustainability Index went up by 32 (previous year: -45) per cent to 1,011 points.

**SOLAR STOCKS STILL UNDER PRESSURE.** This generally positive development was, however, not reflected in the performance of solar stocks. Discussions about rising competitive pressure within the solar industry as well as the declining price level impacted negatively on solar stocks. The pressure for consolidation in the industry caused several competitors to incur losses. The trust of investors – above all in European solar manufacturers – declined. The World Solar Energy Index (SOLEX)<sup>9</sup> that only lists wafer, cell and module manufacturers lost five (previous year: -68) per cent in the course of the year and closed at 549 points. In contrast to this the Photon Photovoltaic Share Index (PPVX)<sup>9</sup> rose in the same period by eleven (previous year: -69) per cent. This contradictory development is mainly attributable to the fact that the PPVX also lists machine makers and several Asian companies of the solar industry. The former were able to benefit from the capacity increase in the industry and the latter from strong price competition, making it possible for them to penetrate the European and the US markets. → *Supply exceeds demand* • p. 073//

## DEVELOPMENT OF THE SOLARWORLD STOCK 2009

**STOCK INFLUENCED BY MARKET VOLATILITY.** In spite of positive business development, our stock was not able to completely avoid the volatility of solar stocks in general. The SOLARWORLD stock (WKN: 510840) listed in the Prime Standard<sup>9</sup> of the Frankfurt Stock Exchange (TecDAX) lost two (previous year: - 64) per cent. On the cut-off date (31 December 2009) it closed at € 15.33. The highest price of our stock in the reporting period was € 23.78, the lowest was € 12.24. Our price-earnings ratio (P/E ratio) at the cut-off date amounted to 28.9 (31 December 2008: 11.4). ⑬ *Development of the SolarWorld stock in comparison with the DAX and TecDAX* • p. 069//

Measured by the market capitalization<sup>9</sup> of all technology stocks and as a function of the trading volume in free float, we reached fourth place respectively in the TecDAX at the end of the 2009 reporting period (previous year: third place in market capitalization, second place in trading volume). On the whole, SOLARWORLD achieved a trading volume in free float of € 6.4 billion (previous year: € 10.6b). The average daily trading volume in units in the year under review amounted to 1.5 (previous year: 1.6) million units. On 31 December 2009 our market capitalization was almost unchanged at around € 1.7 billion. In addition to being quoted on the TecDAX the SOLARWORLD stock is also listed in several international and national indices. ⑭ *Indices in which SolarWorld is listed, 2009* • p. 069//

## SHAREHOLDERS AND COMMUNICATIONS

**THE SHAREHOLDER STRUCTURE OF SOLARWORLD AG CHANGED AS OF 31 DECEMBER 2009.** The capital stock<sup>9</sup> of the company is split into 111,720,000 no par value bearer shares with an imputed nominal value of € 1. Notifications pursuant to paragraph 21 Sec. 1 Sent. 1 WpHG from the shareholders to the company as well as to the Federal Office of Financial Services Supervision (BaFin) concerning the number of voting shares were issued in the year under review and were appropriately reported on the company's homepage. In comparison with 31 December 2008, BlackRock Inc. and DWS Investment GmbH increased their shares to 3.44 (previous year: 2.82) per cent, and 5.31 (previous year: 4.93) per cent, respectively. [⑳ Shareholder structure as at 31 December 2009 • p. 069//](#)

**AUTHORIZATION FOR A SHARE BUY-BACK NOT EXERCISED.** The AGM on 20 May 2009 again passed a resolution to authorize the company to acquire treasury stock pursuant to paragraph 71 (1) No. 8 AktG in the amount of ten per cent of the capital stock of the company. In the year under review no use was made of this authorization. The authorization to acquire treasury stock is limited to the close of business of 20 November 2010.

**AGM 2009 APPROVES CAP ON MANAGEMENT BOARD SALARIES AND DIVIDENDS.** Our AGM 2009, which took place in Bonn, was attended by some 1,300 shareholders. This means that 47.05 (previous year: 51.57) per cent of the voting capital was represented. For fiscal year 2008 the AGM approved the distribution of a dividend<sup>9</sup> for the ninth year in succession. The profit share rose to € 0.15 (previous year: € 0.14) per share and thus increased for the fifth year in succession. [⑲ Dividend and distribution • p. 069//](#) Some 22 per cent of the balance sheet profits from the individual financial statement of SOLARWORLD AG as of 31 December 2008 were distributed. The largest part of the balance sheet profits of the stock corporation was allocated to revenue reserves. In doing so we strengthened the capital base of the SOLARWORLD Group and secured the financial flexibility for further investment projects. The dividend was paid out on 22 May 2009. Our shareholders will also receive a share of the profits of the company in the future. [➔ Future dividend and distribution • p. 145//](#)

The AGM also complied with the proposal of the Supervisory Board and the Board of Management under agenda item 10 and approved a cap on Management Board salaries with a majority of 99.98 per cent. [➔ Management Board remuneration • p. 056//](#)

The AGM also approved all other items on the agenda with a large majority. The Board of Management and the Supervisory Board were discharged with 99.87 and 99.35 per cent respectively – evidence of shareholders' satisfaction with the corporate management of SOLARWORLD AG. [⑲ www.solarworld.de/hv2010//](http://www.solarworld.de/hv2010//)

**INVESTOR RELATIONS WORK IMPROVED.** In the year under review SOLARWORLD intensified contacts with international investors in Europe and in the USA. Overall, we presented our company at 28 (previous year: 30) Road Shows, Equity Fora, Conferences and Investor Days such as the 24th European Photovoltaic Solar Energy Conference and Exhibition in Hamburg, Germany, or at Solar Power International in Anaheim, USA.

The Investor Relations section on our homepage [www.solarworld.de/investor-relations//](http://www.solarworld.de/investor-relations//) was revised in early 2009 and given a more easy-to-read structure. This is designed to offer more user-friendliness to our shareholders and other interested parties. All previously published financial reports can be downloaded from our website as PDF files. The 2008 Annual Group Report is available in an online version. In addition to the 2009 interim reports, there are so-called Quick Quarter overviews that summarize the most important facts and figures. In this way we make it easier for our stakeholders<sup>9</sup> to look for specific information and to put it together individually. For the first time, we published the financial calendar for fiscal year 2010 together with the interim report for the third quarter of 2009. As a result, important dates such as the Annual General Meeting or the publication dates of our financial reports can be planned well ahead of time.

In our communication we also include ecological and social topics. Thus, SOLARWORLD AG is the only company in the solar industry to publish an integrated Sustainability Report within the reporting framework of the Global Reporting Initiative (GRI)<sup>9</sup>. Furthermore, SOLARWORLD was a pioneer in already applying the core performance indicators for environment, social affairs and corporate management (ESG = Environmental, Social, Governance) of the Deutsche Vereinigung für Finanzanalyse und Asset Management (DVFA) in its 2008 report. Through disclosure of these additional reporting requirements, SOLARWORLD plays a pioneering role in sustainability reporting among all listed companies. ☉ *Report on sustainable corporate management/Key indicators of DVFA* • p. 221// In the year under review SOLARWORLD again received accolades for the quality and transparency of its market communication. In the yearly “Best Annual Report 2009” competition run by Manager Magazin, the SOLARWORLD annual report was, as in the previous year, awarded second prize in the TecDAX<sup>9</sup> category.

In 2009 we also participated in the Carbon Disclosure Project (CDP)<sup>9</sup>. [www.cdproject.net//](http://www.cdproject.net//) In the context of this project SOLARWORLD discloses its greenhouse gas emissions<sup>9</sup> as well as its strategy to reduce these emissions for institutional investors. ☉ *Report on sustainable corporate management* • p. 213// The CDP is one of the largest joint international initiatives of the financial sector and the most comprehensive emission register of company-related GHG emissions worldwide. SOLARWORLD has been participating in this project on a voluntary basis since its introduction in Germany in 2005.



SOLARWORLD REPRESENTED AS TOP STOCK IN SUSTAINABILITY FUNDS. Our increased transparency in sustainability reporting has been recognized by the capital market. The Internet platform [\[1\] www.nachhaltiges-investment.org.de//](http://www.nachhaltiges-investment.org.de/) which publishes an overview of all sustainability funds licensed in the German-speaking region lists the SOLARWORLD stock in the year 2009 as a Top 10 investment in more than 15 funds and 14 indices. To us, this capital market sector constitutes an important segment of investors that gains in importance every year. In 2009 alone 31 funds with a total volume of roughly € 790 million were newly launched in the German-speaking region. The sustainable fund volume in Germany, Austria, and Switzerland increased from € 19 to 30 billion in 2009.

### TAKEOVER DIRECTIVE LAW

The information pursuant to paragraph 315 (4) No. 1 and No. 3 HGB (the composition of subscribed capital and participation in capital) can be obtained from the previous paragraphs.

The provisions concerning the appointment and dismissal of Management Board members as well as amendments to the Articles of Association (paragraph 315 (4) No. 6 HGB) result from the German Stock Corporation Act.

Regarding the powers of the Management Board (paragraph 315 (4) No. 7 HGB), reference is made to the Stock Corporation Act. Furthermore, the following applies:

In the AGM on 24 May 2006 the Board of Management was authorized to increase the capital stock<sup>9</sup> with the approval of the Supervisory Board by a total of € 5.5 million until 31 December 2010.

In the AGM on 24 May 2007 the Board of Management was authorized to increase the capital stock with the approval of the Supervisory Board by a total of € 20.9 million until 31 December 2011.

In the AGM on 21 May 2008 the Board of Management was authorized to increase the capital stock with the approval of the Supervisory Board by a total of € 27.9 million until 31 December 2012.

As of the cut-off date there were financial liabilities amounting to € 697 million (converted) for which creditors can demand early repayment in the event of a change of control (paragraph 315 (4) No. 8 HGB). A change of control shall be deemed to occur if and when one party (with the exception of Frank H. Asbeck, members of his family or companies controlled by any of the aforementioned parties) directly or indirectly holds more than 50 per cent of the voting rights for the shares issued or acquires the possibility to nominate or to elect the majority of Supervisory Board members or to cause such a nomination or election to take place.

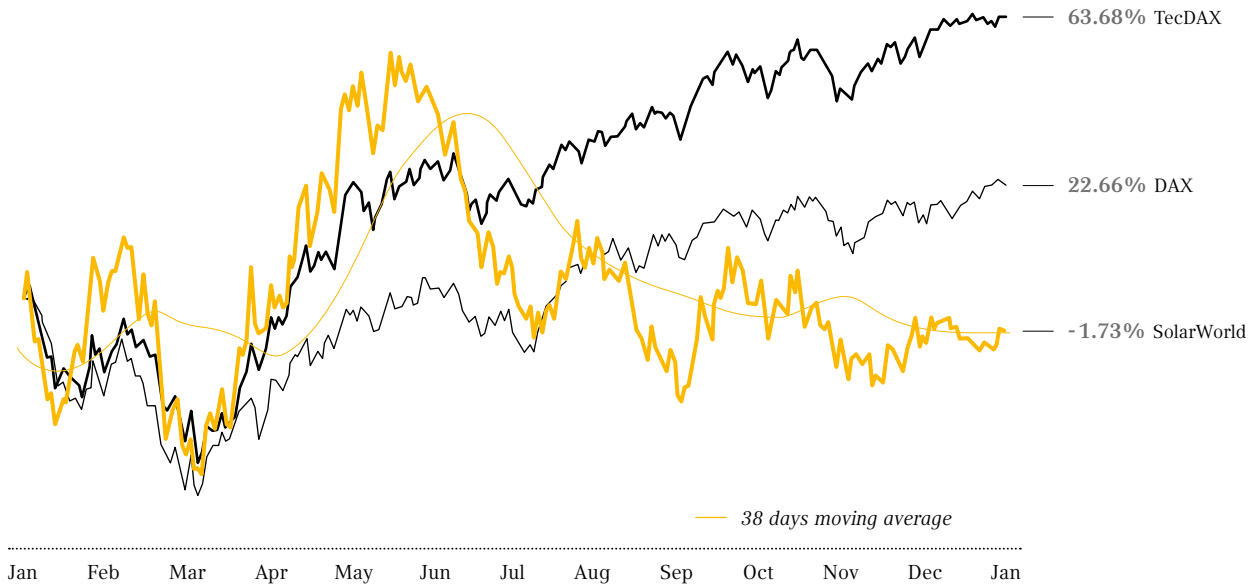
With regard to paragraph 315 (4) Nos. 2, 4, 5 and 9, no information is required.



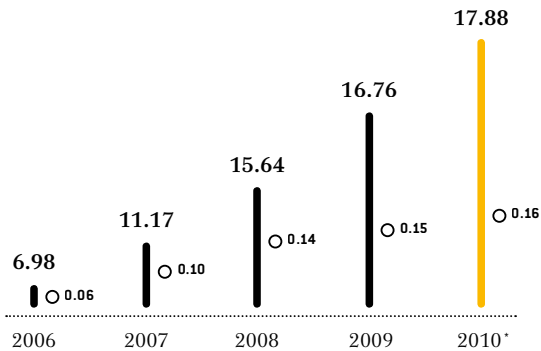


15 **DEVELOPMENT OF THE SOLARWORLD STOCK IN COMPARISON WITH THE DAX AND TECDAX**

Source: Xetra, 2010



16 **DIVIDEND AND DISTRIBUTION**

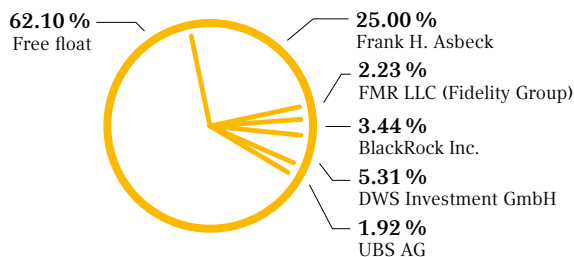


○ Dividend per share in €\*\*  
 ■ Distribution in € million

\* Dividend proposal to the AGM 2010

\*\* Corrected for the issue of bonus shares 2006 (1:3) and 2007 (1:1)

17 **SHAREHOLDER STRUCTURE AS AT 31 DECEMBER 2009**



18 **INDICES IN WHICH SOLARWORLD IS LISTED 2009**

GERMANY

- TecDAX // Technology companies
- GEX // Owner-managed companies
- HAFix // Owner-managed companies
- DAXplus Family Index\* // Owner-managed companies
- ÖkoDAX // Renewable energies / Sustainability
- DAX All Renewable Energies // Renewable energies

EUROPE

- Dow Jones STOXX 600 // Industry
- ERIX // Renewable energies / Sustainability

GLOBAL

- NAI // Environment / Sustainability
- Global Challenges Index (GCI) // Environment / Sustainability
- DAXglobal Sarasin Sustainability Index  
// Environment / Sustainability
- FTSE Environmental Opportunities All Share  
// Environment / Sustainability
- DAXglobal Alternative Energy Index  
// Renewable energies / Sustainability
- S&P Global Clean Energy Index  
// Renewable energies / Sustainability
- WilderHill New Energy Global Innovation Index (NEX)  
// Renewable energies / Sustainability
- Merill Lynch Renewable Energy  
// Renewable energies / Sustainability
- RENixx // Renewable energies / Sustainability
- PPVX // Solar / Sustainability
- SOLEX // Solar / Sustainability
- MAC Global Solar Energy Index // Solar / Sustainability
- KLD Global Climate 100 SM Index // Climate change / Sustainability

\* 2009 new

## MARKET 2009

### ECONOMIC ENVIRONMENT

**DEVELOPMENT MORE STABLE IN SECOND HALF OF THE YEAR.** In the year 2009 the global economy shrank for the first time since 1946. According to provisional figures of the Euroframe Group, a combination of leading European economic research institutes, the economic output in 2009 declined by one per cent. In the first half of the year both private consumption and gross investments declined significantly. Industry responded to this drop in demand by massively cutting back on production worldwide. World trade showed a strong decline and exports and imports were reduced substantially. On the whole, the international trading volume in 2009 dropped by 11.9 (previous year: +2.8) per cent. The high interest add-ons for loans granted as well as banks' increasing reluctance to grant credits in the first place exacerbated the negative economic situation.

Signs of stabilization could not be observed until the second half of 2009. The dramatic decline in world trade slowed down. Industrial production capacities were gradually increased again in order to service the slowly recovering demand. Interest rates in credit markets also normalized gradually and the investment propensity increased. In the third quarter of 2009 the economic output grew slightly but could not compensate for the negative development in the first half of the year. The low point of the recession was overcome in the fall, according to leading economic research institutes, but they still classify this recovery as unstable.

The economic development in our sales and production markets could not avoid being drawn into the negative trend of the international economy. All these markets showed declining economic development. <sup>(19)</sup> *Gross domestic product* // In addition to the economic development, the long, hard winter during early 2009 in Germany and in the rest of Europe impaired general building construction, which in turn had weakening effects on the assembly of solar modules at the beginning of the year.

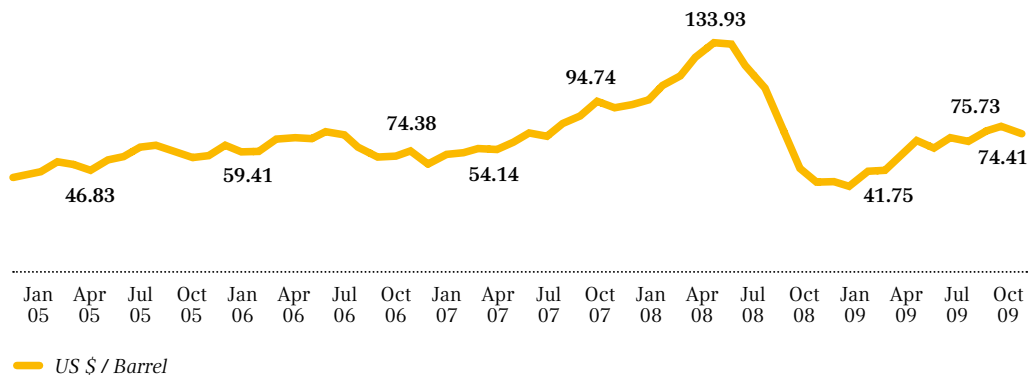
#### <sup>(19)</sup> GROSS DOMESTIC PRODUCT // CHANGES VS. PREVIOUS YEAR IN PER CENT

Source: Euroframe, 2009; IfW, 2010

Country/Region	2008	2009
World	3.2	-1.0
EU 27	0.7	-4.1
Germany	1.0	-4.9
USA	0.4	-2.6
South Korea	2.2	-0.1

## ⑳ DEVELOPMENT OF THE AVERAGE OIL PRICE // WTI GRADE

Source: Mineral oil industry, 2010



## THE WORLD ENERGY MARKET

**OIL PRICE INCREASED IN THE COURSE OF YEAR.** The world energy market reflects the declining development of the global economy. The recession produced a decline in the demand for oil, which in turn depressed the prices for oil on the global market. Consequently, the average oil price for West Texas Intermediate (WTI) grade in January 2009 reached its lowest level since 2005 at 41 US\$/barrel. Along with the recovery of the economic situation in the second half of the year, oil prices rose again. Thus, the average oil price (WTI) in 2009 went up by 80 per cent to 74 US\$/barrel in December (December 2008: 41 US\$/barrel).

**ELECTRICITY DEMAND GROWING.** Politicians and the public are becoming more and more aware that energy alternatives are needed in order to be able to guarantee long-term and at the same time environmentally compatible economic growth. In this context the electricity sector will play a fundamental role. Already today electricity has a share of 17.1 per cent in total energy consumption worldwide, according to the figures of the International Energy Agency (IEA). In the OECD<sup>9</sup> countries this share even amounts to as much as 21.1 per cent. With the advancing industrialization of developing and threshold countries the worldwide share of electricity in total energy consumption will go up even further. Until the year 2030 the IEA forecasts an increase of 76 per cent in the demand for electricity; all in all, it is safe to assume that some 4,800 GW of power output will be newly installed worldwide.

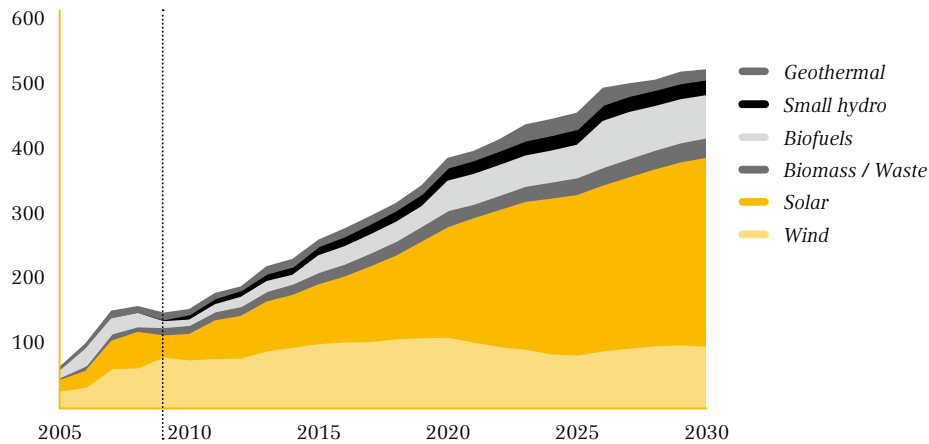
**RENEWABLE ENERGIES GAINING IMPORTANCE.** In the future, renewable energies must be one of the main pillars in power generation because, unlike fossil energy carriers, they are not limited resources. In addition, they constitute a climate-friendly alternative to the conventional energy supply due to their low carbon dioxide emissions. Today, already, the European Union has set itself a target to cover 20 per cent of its power supply with renewable energies by the year 2020. In the United States, the House of Representatives approved a law in 2009 that also stipulates a minimum share of renewable energies of 20 per cent

in the USA's power mix. This law still requires Senate approval. So far, 29 US federal states as well as Washington DC have determined minimum shares of renewable energies<sup>9</sup> in the power mix. In addition, threshold countries such as China and India are recognizing the need to expand renewable energies: Thus, China wants to install 10 GWp of solar power by the year 2020. India's plans are even more ambitious with a planned solar power output of 20 GWp by the year 2020.

19 (previous year: 18) per cent of the required power was already generated by renewable energy in the year 2009. Economically, also, the importance of renewable energy is becoming more apparent every year. In 2009 total investments in this field amounted to some US\$ 145 billion, according to the figures of New Energy Finance. Admittedly, the investments were below the previous year (US\$ 155bn) due to the financial crisis and bottlenecks in the credit market, but towards the end of the year an increase in the investment level could be observed that was in line with the general economic development. While the investments amounted to only US\$ 19.3 billion in the first quarter of the year they already reached US\$ 27 billion in the fourth quarter. In this context solar energy occupies a central position:

② INVESTMENTS IN RENEWABLE ENERGIES BY SECTORS // IN BILLION US\$

Source: New Energy Finance, 2010



## THE SOLAR POWER MARKET

**DIFFERENTIATION CRITERIA BECOMING MORE IMPORTANT.** In the year under review the solar power market underwent a fundamental structural change – away from a sellers’ market towards an end customers’ (or buyers’) market. For the first time, supply consistently exceeded the demand. This is why every customer had to be “fought for”. The quality and properties of the products as well as further differentiation criteria of the individual manufacturers turned out to be crucial. The prices for solar power products plummeted by about one third industry-wide in the year under review. In addition, influenced by the global recession, investments in the solar industry declined, just as in other renewable energy segments.

According to the figures of Bank Sarasin, the newly installed output capacity on the solar world market – after consistent growth in the last five years – sank slightly for the first time in 2009 by one per cent to 5.8 (previous year: 5.9) GW. The cumulative solar power output worldwide in the year under review amounted to 20.5 (previous year: 14.7) GW; this would be enough to supply around 20 million people with electricity (assumption: 1,000 kWh annual average power consumption per person).

**SUPPLY EXCEEDS DEMAND.** Due to the persistently difficult financing conditions, a shrinking economy and the hard winter in early 2009, demand in the solar market during the first half of the year tended to be very low-key. Many providers reduced their production capacities or introduced short-time work. The persistently low demand caused a price decline along the entire value chain<sup>9</sup> from silicon via wafers and cells through to complete solar systems.

Consequently, the average prices for silicon – the most important raw material for the production of crystalline solar modules – dropped from 70 US\$/kg at the end of 2008 to 55 US\$/kg at the end of the year under review. The huge span between the spot<sup>9</sup> market prices that reached record heights of more than 400 US\$/kg in 2008 and the contract prices (2008: 79 US\$/kg) dissolved almost completely in the year under review. The reason for this development was an increasing silicon supply versus weak demand. According to estimates by Bank Sarasin, the silicon capacities that are available to the solar industry rose in 2009 by 40 per cent to 67,000 (previous year: 48,000) tonnes.

With the removal of the bottleneck in pure silicon, the market for upgraded metallurgical silicon (UMG-Si) also collapsed. Last year this material was still traded as an alternative to the very expensive and hardly available solar grade silicon. Many new silicon producers therefore abandoned their projects in this field within the course of 2009. Alternative solar technologies such as thin film also suffered from the declining silicon price because their previous cost advantage over crystalline solar technologies was reduced. Of the 140 companies that were active in the thin film business in 2008 only about 70 providers survived in the year under review. While it is true that the share of thin film products in the solar market increased to 20 (previous year: 16) per cent, growth of this section of the solar market has slowed down. These alternative technologies are not expected to jeopardize the dominant market position that crystalline technologies have (some 80 per cent of the total solar market) over the short- to medium-term.



074

The global markets for solar products such as wafers, cells, and modules also underwent structural changes in the year under review. Production capacities increased significantly while the demand remained weak, as a result of which the surplus supply on the market rose, above all in the first half of 2009. Thus, according to the figures of Bank Sarasin the growth in solar cell production alone amounted to 56.7 per cent. In 2009, capacities rose worldwide to 10.5 (previous year: 6.7) GW. This development was driven mainly by the strongly expanding Chinese manufacturers, who have cost advantages over European producers in the form of lower wages, lower costs for energy, and less expensive real estate. In addition, they received low-cost credits from the state banks, which accelerated the growth of the companies. In order to penetrate the markets in Europe and the USA it was mainly Chinese manufacturers who offered their products at very low prices. This also put the margins<sup>9</sup> of other manufacturers under pressure.

In particular, cell manufacturers who were tied to fixed wafer contract prices on the supply side and who were simultaneously confronted with substantially declining module prices on the buyers' side sustained very high margin losses. Many dropped into the red and had to reduce their growth rate substantially as they were no longer capable of covering their capital needs from the operating business. Combined with the difficult credit market environment, some competitors were forced to introduce short-time work or to sell shares of associated companies in order to be able to obtain capital. On the other hand, fully integrated<sup>9</sup> manufacturers were better off.

On average, in 2009 it was possible to increase the degree of efficiency<sup>9</sup> of crystalline cells to 17.0 (previous year: 16.5) per cent, according to the European Photovoltaic Industry Association (EPIA)<sup>9</sup>. According to information from Bank Sarasin, the industry also succeeded in reducing average silicon consumption to 8.2 (previous year: 8.6) g/Wp. Anyone who seeks long-term success in the solar market must consistently improve efficiency and cut costs in the future in order to compensate for declining prices as well as possible.

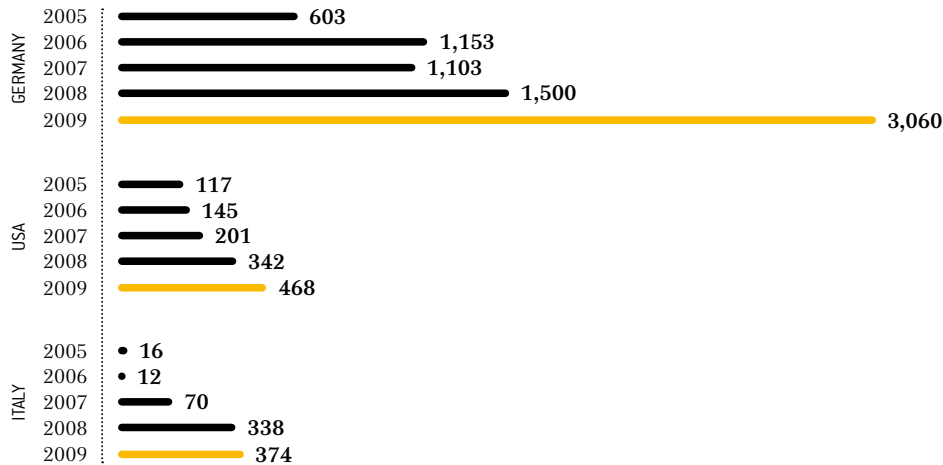
**DEMAND PICKED UP SIGNIFICANTLY IN THE SECOND HALF.** Due to the change in the competitive situation, customer benefit as a selling point has come into focus in 2009. European providers who have nurtured their presence in the retail market, their strong distribution structures and their high service quality for many years succeeded in positioning themselves better than Asian competitors. Customers were prepared to pay a premium of up to 25 per cent (in comparison to Asian products) in return for higher confidence in the warranty performance and quality. As a result, European brand manufacturers' prices did not drop as dramatically as those of Asian competitors. Moreover, when it comes to the external financing of projects, brand awareness turns out to be an advantage because, with borrowed capital financing as restricted as it is, banks prefer projects that use solar modules of well-known manufacturers.

On the whole, demand was low-key in early 2009. However, over the course of the year the considerable price reductions together with stabilization of the economy stimulated customers' investment propensity. In the second half of the year the solar market picked up noticeably. This was mainly driven by strong demand on the German market. As of the end of the third quarter of 2009, the demand reached such a high level that delivery and assembly bottlenecks occurred on the German market.



## 22 HISTORIC DEVELOPMENT OF OUR MAIN SALES MARKETS // IN MW

Source: Deutsche Bank, 2010; Barclays Capital, 2010; Gestore Service Energetici, 2010



In 2009 Germany was the growth driver in the solar market. The second most important growth region was the USA, followed by Italy. The Spanish market, which was still one of the growth drivers in 2008, collapsed almost completely due to the more difficult new approval processes.

**GERMANY MOST IMPORTANT SOLAR MARKET WORLDWIDE.** In spite of the difficult environment, the German solar market developed very well. The reason for this is that this mature market has well-established distribution channels in addition to rapid approval and financing procedures. The newly installed output capacity doubled in 2009 to 3,060 (previous year: 1,500) MW. The cumulative solar power output reached 8,422 (previous year: 5,362) MW. All told, Germany accounted for around 55 per cent of the worldwide solar market in the year under review. The most important growth driver was the roof systems market which, according to figures provided by EuPD Research, accounts for 86 per cent of the overall German market, while free-field solar plants account for a share of only 14 per cent.

**US MARKET LAGS BEHIND EXPECTATIONS.** The US solar market was particularly hard hit by the economic crisis. Several large-scale projects had to be postponed due to financing difficulties. Driven by the demand in California, the roof systems market did indeed grow, but could not completely compensate for declines in the free-field systems market. According to an estimate of Barclays Capital, on the whole the US solar market grew by 468 (previous year: 342) MW. In 2009 additional funding measures for solar plants were approved within the framework of the economic stimulus package “American Recovery and Reinvestment Act of 2009”. These were, however, not implemented until the third quarter of 2009. The hoped-for demand increase therefore did not materialize in the year 2009. As in previous years, California was again

the most important sales region in the USA in 2009. In the context of the “California Solar Initiative”, slight growth of twelve per cent to 135 (previous year: 121) MW in the newly installed output capacity could be achieved.

**EUROPEAN SOLAR MARKETS ON THE INCREASE.** In spite of tougher financing obstacles in 2009, Italy succeeded in rising to third place among the solar markets. However, solar projects there suffered more severely from the restricted financing possibilities than those in Germany, for example. In 2009 the newly installed output capacity amounted to 374 (previous year: 338) MW, according to information supplied by the power authority, Gestore Service Energetici.

Other European markets such as France, Belgium, and the Czech Republic also reported positive development in the year under review. The reason for this was the consistent improvement of distribution channels as well as the acceleration of approval procedures. All this contributed to the fact that, in 2009, Europe continued to be the most important solar market region with a share of 65 (previous year: 79) per cent of the worldwide solar market.

**NEW FUNDING PROGRAMS IN ASIAN COUNTRIES.** In Asia, Japan introduced new funding programs: as a result of these they could, after stagnation in 2008, report renewed growth by 62 per cent to 365 (previous year: 225) MW. The country thus defended its top position in the Asian solar market. Other countries such as China, Australia, and India approved new funding programs for solar power which are, however, not yet fully mature. In South Korea the market in 2009 was reduced by more than half due to the launch of a market cap amounting to 100 MW in comparison with the previous year (276 MW).

Changes to the solar funding conditions for important core markets were announced in the year under review. These are only expected to become effective as from 2010 or 2011. ➔ [\*The future solar power market\* • p. 135//](#) ➔ [\*Supplementary report\* • p. 111//](#)

## EFFECTS OF GENERAL CONDITIONS ON BUSINESS DEVELOPMENT IN 2009

The business of SOLARWORLD AG was also influenced by the changing general conditions. Product shipments went up, yet revenues developed below-proportionately due to the strong industry-wide decline in prices. We increased the investments for strengthening our brand awareness significantly in the year under review in order to bring home the features and quality of products “Made by SOLARWORLD” to potential customers. In particular, in the first half of the year – characterized as it was by weak demand – SOLARWORLD succeeded in gaining market shares and thus secured full capacity utilization of its production throughout the year. In the second half of the year the group benefited from the strong demand development and was able to successfully place its products on the market. Our specialization in the roof systems market constitutes another competitive advantage since it grew above-proportionately in 2009.





## THE SOLAR VALUE CHAIN 2009: FROM SILICON TO MODULES

### “PRODUCTION GERMANY” SEGMENT

**EXPANSION OF THE WAFER CREATES A BASIS FOR FURTHER GROWTH.** In 2009 the focus of our fully integrated<sup>9</sup> production in Germany was on expanding our wafer production in Freiberg. In the fourth quarter we launched the ramp-up process to 250 MW. Our total capacity in Freiberg thus amounts to 750 MW for wafers. The new, state-of-the-art plant at the Industrial Estate East was largely completed by the end of the year under review and will be officially inaugurated in 2010. We are planning to further expand capacity to 1 GW. At a volume of € 350 million, this is one of the largest ever investment projects in the history of SOLARWORLD.

The expansion underpins our business with external wafer customers in the international solar cell industry and enables us to service the growing demand from our own module production, which will be tripled to 450 MW at our Freiberg site in 2010. ➔ *Facts: Worldwide production capacities 2010+ • p. 140*// Within the value chain, nominal cell capacity was 200 MW.

**POOLING SILICON PRODUCTION AND RECYCLING.** The group secures its silicon requirements for the growing wafer production – apart from external ➔ *Procurement • p. 079*// – through in-house production and internal recycling<sup>9</sup>. These activities have been pooled within SUNICON AG in Freiberg and ensure constant supplies of the key raw material in photovoltaics. Our subsidiary develops and evaluates alternative production methods. In 2009 the focus was on SUNSIL<sup>®</sup> silicon, which is produced by our joint venture<sup>9</sup> JSSI GMBH. In 2009 SUNICON manufactured products that were developed in-house for the processing of powdery SUNSIL<sup>®</sup>: By means of being compacted into SUNBRICKS<sup>®</sup>, SUNBALLS<sup>®</sup> or SUNPEARLS<sup>®</sup>, SUNSIL<sup>®</sup> is universally applicable for wafer production.

As a global pioneer and market leader we have been pushing ahead our recycling activities. We increased our reprocessing result of internally and externally collected raw materials (by-products from different stages of silicon production) to around 1,640 (previous year: 1,240) tonnes by optimizing our etching plants and by investing in new plants for the surface cleaning of silicon, for example. Through process improvements, we increased productivity by roughly ten per cent. To some extent we offered recycling as a service to customers. The proportion of recycling material in the raw material input of our Freiberg wafer production amounted to 21.2 (previous year: 20) per cent.

SUNICON also offers a broad range of recycling solutions to external manufacturers as a service. In the year under review, for instance, we recycled around 2,000 modules from the oldest Belgian solar park, Chevetogne, dating back to 1983. Recycling not only constitutes a reliable source of raw materials to our group but also opens up opportunities for new business fields due to our position as a market and technology leader. ➔ *Economic performance opportunities • p. 132*//



## “PRODUCTION USA” SEGMENT

**COMMISSIONING OF STATE-OF-THE-ART MODULE LINE.** In the USA, SOLARWORLD is already the largest manufacturer of crystalline solar power products produced in the USA. The restructuring and modernization of our plants, which became necessary following takeover of the Shell solar activities, was successfully completed in the first quarter of 2009. At our traditional site in Camarillo, California, the previous module line was substituted at the beginning of the year by a new, fully automated and hence considerably more efficient line. At that site we produce mono-crystalline<sup>9</sup> high-performance modules in response to the expected strong demand for these products in the USA. In 2009, we achieved a year-end capacity of 150 MW. Wafer and cell production at our new site in Hillsboro, Oregon, launched in October 2008, was successively ramped up in the first half of 2009. Our location in Vancouver, Washington, focused on reprocessing silicon scrap for our wafer production in neighboring Hillsboro.

By the end of 2011 the group will also massively expand its module capacity in the USA. We are building a new production plant with a capacity of 350 MW in Hillsboro. ➔ *Facts: Worldwide production capacities 2010+ • p. 140*// The two sites form our group’s innovative platform for further expansion in the USA. One aspect that plays a strategic role is that SOLARWORLD is positioning itself as a company which produces in the American market. ➔ *Building a brand with strong identity • p. 083*//



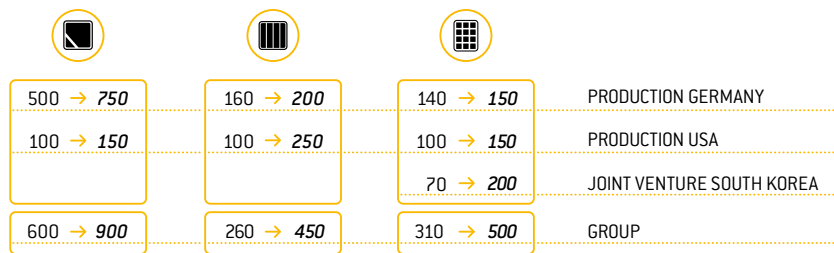
BE INDEPENDENT

BE SUSTAINABLE

BE SUCCESSFUL

**FACTS: WORLDWIDE PRODUCTION CAPACITIES**

In 2009 the group continued its course of growth and expanded its production capacity. In the course of the year, the target for planned capacity expansion from wafers through to modules was adjusted in light of the market requirements. Our production sites are operating at their capacity limits. We are expanding our global production network to include a state-of-the-art, fully automated module production site in South Korea. We thus have a logistics and production center in the growing Asian solar market for on-grid applications with enormous potential for off-grid solar technology solutions. Our activities in Asia are operated under the leadership of SOLARWORLD KOREA LTD., a joint venture between SOLARWORLD AG and SolarPark Engineering Co. Ltd., Seoul, a company that specializes in process automation and production engineering.

**GROUP-WIDE NOMINAL YEAR-END CAPACITY – EXPANSION 2009 (IN MW)****PROCUREMENT**

**SUPPLY OF RAW MATERIALS SECURED.** In the year under review, the cost of materials was € 691.1 million (previous year: € 454.1m). This corresponds to 64.9 (previous year: 49.2) per cent of the total output. The costs of materials quarter thus changed by 15.7 percentage points. → [Development of material income statement items](#) • p. 098// The supply of raw materials and consumables to our production sites was secured at all times in 2009.

**CENTRAL PROCUREMENT MANAGEMENT BOOSTS EFFICIENCY.** Raw material prices have risen strongly in the past few years so that procurement management has played an increasingly important role in reducing the cost of materials. Although the hike in raw material prices, which started in 2004, has been curbed by the turbulence on the financial market and the resulting worldwide economic downturn, raw materials continue to constitute an uncertainty factor. Since raw materials account for a large part of total costs at SOLARWORLD and continue to be highly volatile, we rely on our group-wide raw materials and procurement manage-

ment at our Freiberg location. This offers us the advantage of achieving higher efficiency and economies of scale. We achieve better terms and conditions, for instance, through negotiating group-wide agreements to purchase larger volumes. However, we also benefit through the conclusion of long-term supply contracts entailing capacity reservation clauses for our planned expansion stages 2010+. Our Purchasing department uses a management system for materials groups resulting in transparent, well-structured procurement processes concerning purchasing volumes, required standards, supply risks and supplier performance profiles.

Silicon, which constitutes the largest portion of our raw materials and consumables, was supplied under long-term contracts with favorable terms and conditions dating back to the year 2005. In the year under review, we also covered a part of our silicon requirement through our group-owned JSSi silicon production as well as recycling<sup>9</sup>.

In 2009, we also took advantage of the situation on the raw materials markets as an opportunity to secure a low price level for the future and clearly optimize our cost structure in procurement. This applies to raw materials such as aluminium, copper and silver which are included in frames, cables, cell connectors, pastes and semi-finished products, as well as organic and inorganic chemicals. We achieved further cost savings in 2009 by optimizing all purchasing prices for consumables. For aluminium – an essential quality and cost factor for module frames and in rack technology – we secured the price level of early 2009 for 2010 through price fixing. In addition, we optimized aluminium consumption thanks to an innovative rack design. <sup>29</sup> *Innovation targets and priorities* • p. 092//

SOLARWORLD's integrated production approach strengthens our procurement position concerning our input products wafers and cells. Around half of the wafers we produce are used for our own cell and module production. By this means we secure our growth.

**CRITICAL SELECTION OF SUPPLIERS PAYS OFF – SUPPLIER CAPITAL<sup>9</sup>.** Quality assurance agreements with our suppliers and supplier audits in accordance with ISO 9001<sup>9</sup> and 14001<sup>9</sup> enable us to systematically evaluate our suppliers' quality and environmental standards and thus secure our high internal corporate standard. According to an internal supplier survey from September 2009, 77 (August 2008: 77) per cent of our suppliers are ISO 9001 certified in the area of quality management, with 30 (previous year: 30) per cent ISO 14001 certified in the area of environmental management. This critical selection of suppliers is paying off in several regards for our group: We minimize our own inspection of incoming goods, reduce the risk concerning required environmental and quality standards along the entire supply chain, cut costs as a result, and substantiate the quality and environmental claim of the SOLARWORLD brand vis-à-vis our customers.



## SALES MARKETS, BRAND AND PRODUCT 2009

### “TRADE” SEGMENT

**SALES MARKETS PICKING UP GLOBALLY.** Companies with strong brands and sound distribution structures were better equipped to withstand the price pressure emerging during the period under review. In the framework of market consolidation, SOLARWORLD held its ground thanks to its strategic positioning and its size. ➔ *Strategy and action* • p. 033// It also benefited from dynamic international demand, although revenues and earnings reflected the pressure on margins<sup>9</sup>. ➔ *Earnings situation* • p. 097// Although demand was still subdued at the beginning of the year due to the economic situation and the hard winter, the second half of the year saw a strong rise in demand due to price reductions driven by an intensification of competition. This trend was additionally boosted by the debate about the declining feed-in tariff structure in Germany, our main sales market, so that we recorded demand hikes and a year-end rally. This boom placed major challenges on our Logistics and Sales departments. Nevertheless, we managed to serve our customers and strongly increase sales of modules and kits in the period under review.

Germany remained our strongest sales market. Driven by strong demand in the second half of 2009, we more than doubled the volumes of modules and kits sold. Our long-standing customer relations with electrical and solar wholesalers provided us with a competitive edge in this respect.

In the period under review, Italy became our second most important sales market. We achieved double-digit sales growth in this country.

In France and Belgium we tripled our sales in the year under review. These young markets with market volumes of less than 300 MW each are still relatively small compared with Germany (3,060 MW), and Italy (374 MW), but offer enormous potential for the future. We mainly sold our solutions for integrated roof plants (ENERGYROOF<sup>®9</sup>) and our complete kits (SUNKITS<sup>®9</sup>) in these countries. In order to improve the quality of our service in the French-speaking regions, we set up a liaison office in Grenoble, France, in the year under review. ➔ *Legal group structure changed* • p. 048//

The US solar market fell short of expectations in 2009. Demand was impacted – considerably more strongly than in Europe – by the financial uncertainty arising from the financial crisis. The measures to promote solar energy announced by the US Administration were not defined in greater detail until the third quarter. They therefore did not have a major impact on demand in the year under review. ➔ *The solar power market* • p. 073// In line with these overall conditions, our sales in this market fell short of the level generated in the previous year. We expect the US market to pick up as of 2010. Thanks to stronger marketing measures and the expansion of our sales activities, we will benefit from this development.



Since 2009, all trading activities in South Korea have been handled by our local joint venture, SOLARWORLD KOREA LTD. so that they were no longer included in the “Trade” segment in the year under review. In the previous year, sales in South Korea accounted for around 12 per cent of total sales abroad for modules and kits in this segment.

Due to above-proportionate growth of the German market and the strong decline of the Spanish market, our share of foreign sales in the “Trade” segment declined to 17 (previous year: 53) per cent.

Apart from our main business with roof-mounted systems, we again demonstrated our competency in large-scale plants, ranging from our pure module business all the way to the development of complete solutions for large buildings and free-field installations. The order book for turn-key projects totaled € 86.1 million (previous year: € 11.2m). This volume, for which SOLARWORLD operated as general contractor, was almost exclusively handled in cooperation with the SOLARPARC Group, which implemented the design and marketing of the large-scale projects. In addition, we engaged in normal delivery business, shipping SOLARWORLD modules to large-scale projects, which is reflected in the “Trade” segment – as is the turn-key business.

**SALES STRATEGY PROVES ITS WORTH.** One of our strengths in 2009 was SOLARWORLD’s good standing among our specialist partners and customers. In Germany and the USA we have maintained well-established distribution networks for 10 and 30 years, respectively. Our distribution strategy is based on incorporating our customers in our growth – supplying volumes in line with market demand as quickly as possible and offering promotional material to our specialist partners as brand suppliers in order to support their sales. *→ Brand investments stepped up – demand effects for our group and our customers • p. 084*// Our direct customers are wholesalers and retailers through whom we supply to installers who, in turn, sell our modules and kits to end customers. This distribution strategy has proven to be the right one: SOLARWORLD can rely on a large network of well-trained specialist partners. This is a major advantage in a market characterized by volatile demand such as the solar market, securing sufficient short-term installation capacity even in times of demand hikes in order to place our products on the market.

In order to secure this advantage for the future, we expanded our specialist partner program in 2009. Our specialist partners can order brochures, give-aways and promotional material via our exclusive FachpartnerNet and individualize selected products with the company logo and address. The new offers were well received and viewed positively by our German specialist partners. Thus, our annual customer survey showed that the majority were “very satisfied” and “satisfied” with the provision of the advertising materials, sales ads and presentation utensils.

In order to expand and consolidate the network with US contractors, we launched the “SOLARWORLD’S SUNKITS® Program” in 2009 – a training program teaching basic knowledge about SUNKITS® in a two-day workshop and thus facilitating market access to our contractors.



**MAJORITY OF CUSTOMERS RATES SERVICE QUALITY AS GOOD.** The satisfaction of our customers is a crucial performance indicator of our business activity. ➔ *Corporate management and control* • p. 040// The annual international survey on customer satisfaction among our module and kit customers for the year 2009 showed a satisfactory result: With a good redemption rate of 35 per cent 85.4 per cent of our customers said they were “very satisfied” or “satisfied” with SOLARWORLD. This indicator was identified in this form for the first time in the year 2009. Comparable figures will come to hand in the following year. While 87.6 per cent of our customers gave the criterion of “service” a rating of “very good” and “good”. The rating of “very good” and “good” for the quality of our products given by 99.8 per cent of respondents confirmed our quality positioning. Based on these results the strengths and weaknesses are analyzed and the products and services are continuously optimized. Thus, individual parameters in the area of service indicated that customers were less satisfied than only a year ago. This result is mainly attributable to high demand peaks in the German market towards the end of the year under review, which confronted both our Sales and our Logistics Departments with major challenges. We instantly responded to this development initiating an analysis in the area of Quality Assurance.

**PRESENCE AT TRADE FAIRS IN CORE MARKETS.** With a presence at eleven (previous year: 15) international trade fairs, SOLARWORLD supported its sales activities in the year under review, developed new customer contacts and strengthened its existing customer base as a wafer, module, and systems supplier as well as a recycling specialist. Our focus was on our core markets of Germany, USA and Europe: SOLARWORLD presented itself at the year’s main international solar event, the 24th European Photovoltaic Solar Energy Conference and Exhibition, and at Intersolar North America, the largest international trade fair in the USA, the market of the future. We also actively presented ourselves at various trade fairs in major European markets such as Italy, France, or Greece.

## BRAND PROMISES AND INVESTMENTS

**BUILDING A BRAND WITH A STRONG IDENTITY.** In 2009 we continued to expand our brand awareness and intensify our marketing and distribution activities. The identity of our brand is fed from the values with which the company has grown over ten years: a pioneering spirit combined with strategic continuity and social responsibility coupled with economic success. Translating these distinguishing characteristics into customer benefits, we communicated the performance promise of our “Made by SOLARWORLD” products as follows in 2009: innovation combined with durability and safety, sustainability all the way from production to recycling coupled with high profitability. The value-added promise of our brand is also based on a well-coordinated range of systems and services offering the right customer solutions from roof-mounted systems through to large-scale plants<sup>9</sup>. ➔ *Products “Made by SolarWorld”* • p. 088//

According to a determination of the brand value by Semion Brand Broker, the value of the SOLARWORLD brand was € 25 million (previous year: € 24m), ranking 47th among the most valuable German brands. According to the survey carried out by Semion Brand Broker, we are therefore Germany’s most valuable solar brand.



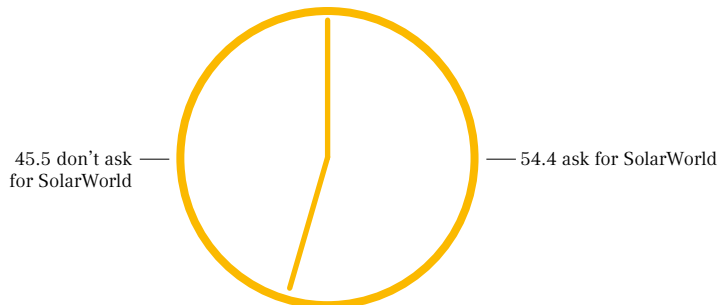
Our brand image in the USA thrives on an original American success story spanning approximately 30 years that started with the ARCO Solar company. As early as at the end of the 1970s, our predecessor had a production site at the SOLARWORLD location in Camarillo, California. In the USA, the SOLARWORLD brand stands for a pioneering spirit, experience and continuity. “Made in USA” is a key argument in this market. SOLARWORLD is deeply rooted in the USA, a phenomenon which provides us with a competitive edge today since it creates a stable basis for trust and acceptance among market participants and our customers in the light of stronger sensitivity concerning the origin of products that is observed in the USA.

**BRAND INVESTMENTS STEPPED UP – DEMAND EFFECTS FOR OUR GROUP AND OUR CUSTOMERS.** Investments in the brand in the form of ads, TV commercials, leaflets and other advertising material increased by almost a factor of five to € 10 million. Our aim is to create awareness and transparency of the benefit promise of the products sold under the SOLARWORLD brand among end consumers. While the focus of our marketing activities in recent years was on sales promotion for the wholesale and retail trade, amidst increasing competition we are now consolidating brand awareness all the way to end consumers. The demand effect generated by the purchasing behavior of private or commercial roof owners not only increased our group-wide sales of modules, it also increased the revenues of our SOLARWORLD specialist partners. They confirmed to us in an internal customer survey that more and more end customers were asking for the brand by name when they bought modules or kits. While in 2008 it was about 81 per cent who “frequently” or “always” asked for the manufacturer this share already went up to 89 per cent in the year 2009. In most cases the customers specifically asked for the SOLARWORLD brand.

In the year under review, our marketing expenses focused on Germany and Europe, followed by the USA. Our main activities in the USA comprised trade fairs, advertisements and direct mailing to end customers, in particular in California. With these measures which are tailored to specific target groups and markets, we have adjusted to the market situation in the USA characterized by many different promotion schemes.

②③ NUMBER OF CUSTOMERS SPECIFICALLY ASKING FOR THE SOLARWORLD BRAND // IN PER CENT

*Customer satisfaction analysis of SolarWorld AG, interview period January 2010*





In Europe we launched a full-year advertising campaign under the heading “Savings Account on German Roofs”, emphasizing a sustainable investment in the form of a solar power plant on a home owner’s roof, and thus providing an answer to the growing skepticism among private investors concerning traditional financial products. By means of mailing to end customers, supplements and ads in target group media, we selectively addressed home owners, farmers and decision-makers – and hence prospective end customers – in Germany and subsequently in the young solar markets France, Belgium, and Italy. The advertisements generated a total of around 48 million contacts – as determined through the print run and the number of advertisements booked.

In addition, SOLARWORLD has been sponsoring the popular German soccer national league team 1. FC Köln since the summer of 2009. In this framework we launched a broadly based end customer campaign and benefited from the high degree of awareness of Lukas Podolski, an FC player and member of the national German soccer team.

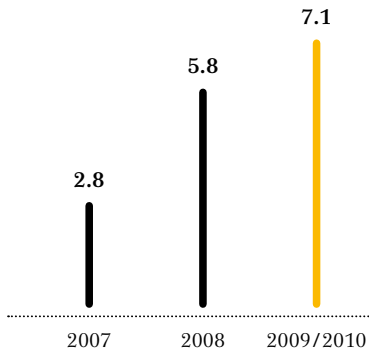
**EFFICIENCY CONTROL – INCREASE IN BRAND AWARENESS.** We use the results of market research activities to control the success of our brand investments.

According to the “Brand monitor 2009/10” of EuPD Research, an internationally operating B2B market research institute, SOLARWORLD is by far the best-known German solar company (7.1 per cent) in unaided recalls<sup>9</sup>. The second most frequently mentioned competitor only accounted for 2.8 per cent. In aided recalls on brand awareness, SOLARWORLD ranked second at 24.9 per cent, very close behind a competitor that was indicated as “known” by 25 per cent of respondents, but which builds its traditionally strong awareness through other products.

In the past few years we have continually increased the awareness of our SOLARWORLD brand in Germany, more than doubling it since the first survey in 2007.

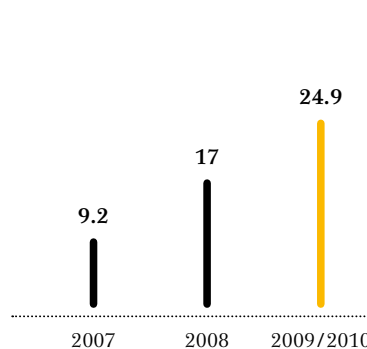
⑳ **UNAIDED BRAND AWARENESS OF SOLARWORLD // IN PER CENT**

Source: EuPD Research / Brandmonitor



㉑ **AIDED BRAND AWARENESS OF SOLARWORLD // IN PER CENT**

Source: EuPD Research / Brandmonitor



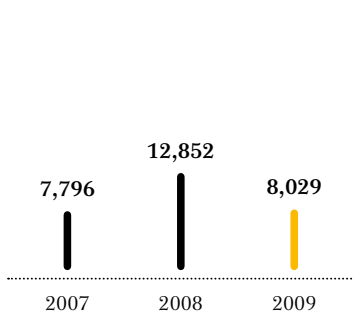
We achieved a further significant increase in our brand awareness, above all in the year under review. While in Brand Monitor 2009 (survey period: 47th calendar week 2008 up to 3rd calendar week 2009) we recorded unaided awareness of 5.8 per cent. Our unaided awareness was 7.1 per cent in the survey for Brand Monitor 2009/2010 (survey period: 42nd up to 44th calendar week 2009). Aided brand awareness also increased substantially in the course of the year: it rose from 17 per cent (Brand Monitor 2009) to 24.9 per cent (Brand Monitor 2009/2010).

A representative study accompanying our TV campaign, carried out across Germany by the Frankfurt-based institute MMA Media Markt Analysen, also showed that we achieved a strong increase in awareness in the year under review. In the pre-wave<sup>9</sup> survey (carried out in the 26th calendar week 2009), SOLARWORLD still ranked second with unaided brand awareness of 9.1 per cent, behind a competitor spontaneously named by 18.1 per cent of respondents. Until the main wave<sup>9</sup> survey (36th to 39th calendar week 2009), we more than doubled our unaided brand awareness and ranked first at 18.9 per cent. In the aided brand awareness survey, we reached 14.3 per cent in the pre-wave, and increased this level to 31.7 per cent in the main wave.

A survey carried out by online panel [www.photovoltaikumfrage.de//](http://www.photovoltaikumfrage.de//) also reconfirmed the level of high brand awareness of SOLARWORLD in Germany. Both in the aided<sup>9</sup> survey (1,342 entries) and the unaided survey (741 entries), SOLARWORLD achieved the highest level of awareness. The online survey was carried out from August to September. A study by the Bielefeld-based SOKO Institute for Social Research and Communication (survey period March to May), also showed that we have the highest level of awareness of all German solar companies.

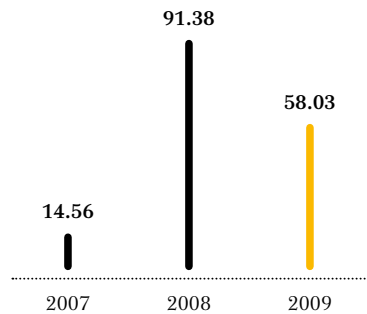
⑳ **NUMBER OF ENTRIES IN GERMAN TV, PRINT AND ONLINE MEDIA**

Source: Excerpt from media observation



㉑ **MEDIA EQUIVALENCE VALUE IN GERMANY // IN MILLION €**

Source: Excerpt from media observation



**MEDIA EQUIVALENCE – STEADY CONTINUATION OF PR-ACTIVITIES.** In the period under review, we continued our intensive Public Relations and press activities, providing the public with comprehensive information through our corporate news, at conferences, trade fairs and events as well as through one-on-ones and telephone interviews. In 2009, a total of 8,029 (2008: 12,852, 2007: 7,796) entries were recorded in TV, print and online media. This was a key factor in order to increase awareness of the SOLARWORLD brand among prospective customers, investors and the public at large.

In the year under review, the media equivalence value in Germany was € 58.03 million (2008: € 91.38m, 2007: € 14.56m). This value represents the value of all editorial contributions published about SOLARWORLD, converted into the advertising value of a commercial advertisement.

In the year under review we increased our TV presence: there were 295 (previous year: 193) entries. Our TV audience thus totaled 42.80 million viewers. At 5,579 entries, most entries were in the online segment, followed by the print media (2,155 entries). We were mentioned in national newspapers such as the Handelsblatt, Financial Times Deutschland, Frankfurter Allgemeine Zeitung or Süddeutsche Zeitung.

**SOLAR2WORLD – NOT-FOR-PROFIT COMMITMENT STEPPED UP.** In line with our vision “BUILD A SOLARWORLD”, one of the core claims of our brand is to establish unlimited, fair energy supplies across the world. This is what we support in the framework of our not-for-profit commitment “Solar2World”<sup>9</sup>. The group supports aid projects in emerging economies and developing countries with off-grid solar power solutions. [\[1\] www.solar2world.de](http://www.solar2world.de) In the period under review, Solar2World projects with a total capacity of around 114 (previous year: 53) kWp were implemented in developing countries – primarily in Africa – in cooperation with various project partners and with the voluntary support of our employees. Since our activities were launched, we have completed projects with a total output of around 191 kWp under our Solar2World program. We are currently planning further projects with a total capacity of around 50 kWp.

Apart from Solar2World, SOLARWORLD supported the first “Football for Hope Center” in 2009 in the run-up to the Soccer World Cup 2010. The “Football for Hope” movement is part of the FIFA campaign “20 Centers for 2010”, in the framework of which 20 health, education and football centers are to be built in Africa [\[1\] www.streetfootballworld.org/football-for-hope-de](http://www.streetfootballworld.org/football-for-hope-de) SOLARWORLD is planning to install additional Sun TV stations in southern Africa by the start of the World Cup next summer. With this voluntary commitment we will provide population groups, who otherwise would not be able to take part for lack of a grid connection, with access to the World Cup. At the same time, we demonstrate the multiple applications of modern and sustainable solar power technology.



## PRODUCTS “MADE BY SOLARWORLD”

HIGH-QUALITY PRODUCTS CREATE A BASIS FOR BRAND PROMISE. We deliver on our brand promise vis-à-vis our customers by means of high product quality.

According to “Brand Monitor 2009/10” of EuPD Research, the quality features: durability, efficiency, and reliability are the three key purchasing criteria when selecting a solar plant. It is precisely these crucial parameters that give the SOLARWORLD brand a competitive edge.

BE INDEPENDENT

BE SUSTAINABLE

BE SUCCESSFUL

### FACTS: QUALITY “MADE BY SOLARWORLD”

- **DURABILITY:** In 2009 we already provided a performance warranty of 25 years (after ten years: 91 per cent, after 25 years: 80 per cent) on all modules. As of 1 January 2010, we underpinned our top position in our sector with further enhancements to our warranty terms and conditions.
  - ➔ [Improved warranty terms and conditions](#) • p. 143 //
- **EFFICIENCY:** In a quality study by the Photon trade journal published in 2009, in which module types of different competitors were tested in a test field (under standardized test conditions<sup>g</sup>), the solar power modules of SOLARWORLD came out in top position: The SOLARWORLD MODULE SW 210 POLY achieved the highest standardized annual yield in 2008, generating more electricity than comparable competitive products. In 2010, our module again came out in top position in the module yield test. ➔ [SolarWorld again wins in the Photon module yield test](#) • p. 111 // To date, the Photon test field is the only one in the world carrying out such tests under scientific conditions. The plus-sort<sup>g</sup> guarantees our customers the highest level of efficiency. It is based on SOLARWORLD Flash Report, measuring the yield of every single module under standard test conditions.
- **RELIABILITY:** SOLARWORLD modules are, of course, certified according to universally recognized standards including IEC<sup>g</sup> and UL. However, our own demands concerning the safety, resilience and durability of our products go far beyond these standards and are underpinned by our own extensive test processes. Essential components are regular performance tests in production, lifecycle tests in our climate chambers, examining ammonia resistance<sup>g</sup> and corrosion tests in salt spray fog.

**EFFICIENCY AS AN IMPORTANT SELLING POINT.** Our group-internal, international survey among specialist partners and trade customers provides evidence of the high reputation of our products in a competitive comparison. → *Majority of customers rates quality and service as good* • p. 083 // German specialist partners in particular consider the efficiency of modules to be “much better” and “better” (65.4 per cent). Accordingly, the Photon test victory in which the efficiency was scientifically proven plays a “very important” or “rather important” role (98.6 per cent) as a selling point vis-à-vis customers for our specialist partners.

**PRODUCT STRATEGY FOCUSES ON CRYSTALLINE TECHNOLOGY.** Due to our quality and ecological sustainability claims, SOLARWORLD focuses exclusively on silicon-based, i.e. crystalline solar power technology. Our product strategy explicitly dispenses with thin film technology. Our technology offers relatively higher efficiencies, correspondingly higher yields on the same area and hence lower costs in relation to the overall system. Moreover, crystalline modules are more environmentally compatible since they do not contain cadmium (Cd). In accordance with the motto “A clean product for clean energy generation”, our philosophy is that a durable investment item such as a roof-mounted solar system on a home has to be as environmentally friendly as possible. “Brand Monitor 2009/10” shows that environmental concerns constitute the fourth most important criterion in selecting a solar plant.

**ASSORTMENT STRATEGY – SYSTEMS ENGINEERING INCREASES THE ADDED VALUE OF THE BRAND.** SOLARWORLD has ten years of competency in systems engineering, which provides us with a clear competitive edge on the market. For the most part, the group’s kit assortment has been developed by our own engineers. They adjust the assortment to market requirements and customer wishes. Our ENERGYROOF® is therefore a door-opener in the French market since integrated systems such as ENERGYROOF®, equipping the entire roof with solar laminates, fall under special promotion schemes in France. In 2009, this system already accounted for over 30 per cent of our sales in that market.

Apart from sophisticated rack and assembly systems, our assortment policy focuses on additional components and ensures that the handling of a solar plant is simple, safe and profitable for end customers. Our new development introduced in 2009 under the SUNTROL® range offers plant operators an opportunity to obtain an overview of the output data of their solar plant any time and anywhere. The system includes a data logger, a display unit in the house and the internet portal [www.suntrol-portal.com.org.de//](http://www.suntrol-portal.com.org.de//), which also facilitates mobile enquiries. This tool also highlights our SOLARWORLD brand among home owners and their personal environments.

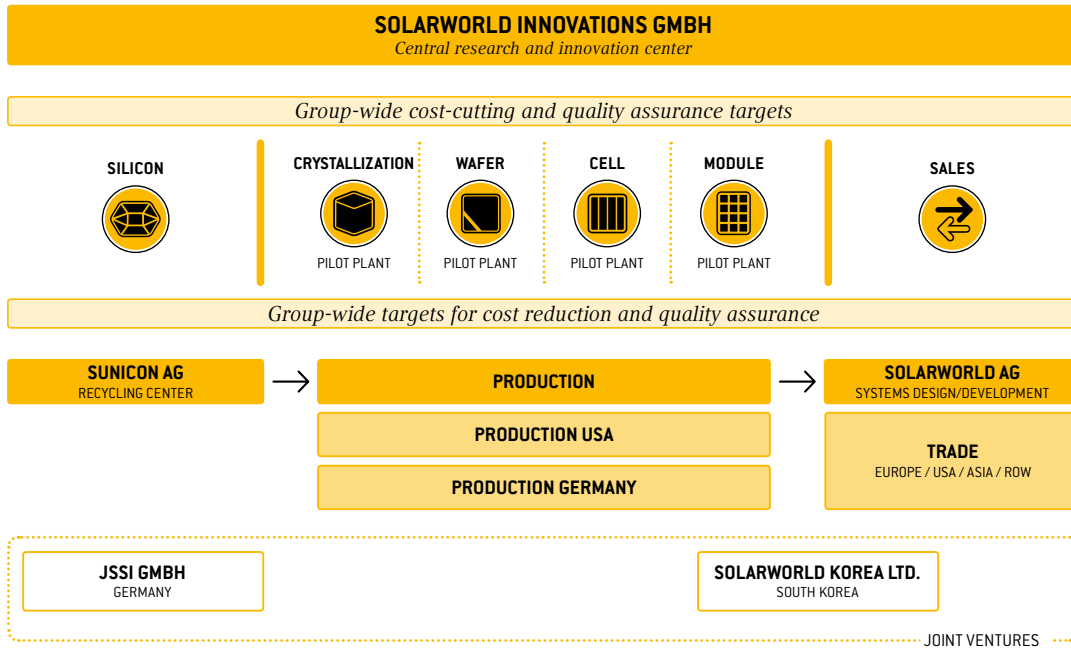


## INNOVATION REPORT 2009

### ORGANIZATION OF OUR INNOVATION ACTIVITIES

**HOLISTIC INNOVATION APPROACH BOOSTS MARKET POSITION.** SOLARWORLD's technological innovation contributes substantially to the group's competitiveness in a market environment characterized by oversupply and price pressure. → *Corporate Technology 2010+ • p. 034*// Our technology and product development is based on understanding the causes and effects all the way from silicon to the finished system. This gives SOLARWORLD a crucial competitive edge in terms of exploiting our cost saving potential while securing and enhancing quality. Innovation can also be implemented more precisely by adjusting individual parameters. Our development mandate is based on market requirements and hence on our customers' needs. We follow our innovation motto "Setting benchmarks": We seek to set industry standards in crystalline solar power technology including PV systems technology.

#### 28 ORGANIZATION OF RESEARCH AND DEVELOPMENT AT SOLARWORLD



SOLARWORLD INNOVATIONS – GROUP DEVELOPMENT “FROM LAB TO FAB”. Our innovation management has been centralized within SOLARWORLD INNOVATIONS GMBH at our German production site in Freiberg, Saxony. This region, a center of science and research, offers us favorable conditions for our own R&D activities and for cooperation schemes. In the year under review, we expanded our local innovation infrastructure: In March 2009 we commissioned our wafer pilot plant with an annual rated capacity of 20 MW. Our new cell and module pilot plant, which also has an annual rated capacity of 20 MW, was almost completed in the period under review. In the first quarter of 2010, our development teams launched their activities at that plant.

Our pilot plants play a major strategic role for our group and are the centerpiece of our development activities. We thus increase productivity in production by shifting development activities to our pilot plants, where we develop new process variants and automation solutions under conditions that are very close to actual production conditions. We also optimize the use of consumables on a pilot scale. This core knowledge developed on the basis of near-production conditions is an asset which neither we nor any other company can buy from institutes or suppliers – and giving SOLARWORLD a competitive edge. The results will only be transferred to production when they have reached a level permitting series production. We thus create standards for all international sites: our Corporate Technology.

Bundling our R&D activities centrally at SOLARWORLD INNOVATIONS provides us with a further benefit: We deliver synergies<sup>9</sup> in quality assurance through our development and test laboratories, further expanded in 2009, but also in patent and literature administration, project management, the coordination of state-funded development projects and central Intellectual Property<sup>9</sup> management (IP management). → *Considerable rise in registered inventions • p. 096//*

**PRODUCT MANAGEMENT CREATES INNOVATION CLOSE TO THE CUSTOMER.** We organize regular forums and workshops to engage in a transfer of knowledge and an exchange of information with our production sites. Moreover, employees from the individual production areas work closely with their SOLARWORLD INNOVATIONS colleagues on our production technology teams. → *Up on the rooftops of the world//* Customer-centered innovation in systems engineering is created by our product management unit at SOLARWORLD AG in Bonn, where our engineers cooperate closely with distribution and customer service.



**STRATEGIC INNOVATION TARGETS**

- CUTTING COSTS
- ASSURING AND ENHANCING QUALITY
- DEVELOPING INNOVATIVE AND SUSTAINABLE SOLUTIONS



**OUR STRATEGIC INNOVATION TARGETS ARE INTERDEPENDENT: IN ASSURING AND ENHANCING QUALITY, WE ALSO OPTIMIZE PROCESSES AND MATERIALS USAGE AT THE SAME TIME.**



**OPERATING TARGETS 2009/2010+**

- **Translating market trends into product innovation:** Observing markets, customers and trends → product innovation with added value and specific additional benefit to tap new business areas and market potential
- **Strengthening the performance promise of products “Made by SolarWorld”:** Enhancing durability, efficiency and reliability
- **Economic and ecological sustainability:** Reducing the consumption of natural resources, avoiding the use of pollutants, avoiding emissions of greenhouse gases and pollutants, avoiding waste
- **Systems engineering for specific market and customer requirements:** Facilitating rapid, simple and safe assembly, developing design variants, offering our customers technical support
- **Process development:** Increasing yields through, e.g. sophisticated analysis methods, increasing throughput, automation and standardization, reducing cycle times in crystallization, optimizing the silicon generation process → productivity ↑
- **Product development:** Increasing the specific performance of cells and modules ↑ → efficiency rate ↑, increasing the durability of modules through better production details and new materials
- **Optimization of materials:** Improving consumption of consumables ↓ and substitution by alternative consumables ↑
- **Energy saving:** Reducing energy and water consumption ↓
- **Basic research:** Pushing basic scientific/technological knowledge ahead/qualification of alternative materials and consumables

**TARGETS ACHIEVED IN 2009/ MARKET LAUNCH 2010+**

→ FUTURE PERFORMANCE POTENTIAL/MARKET OPPORTUNITIES COMPETITIVE EDGE

In 2009 our R&D activities contributed to **cost reductions** in analogy with the decline in feed-in tariffs as at 1 January 2010 in the framework of the German Renewable Energies Sources Act (EEG) <sup>(88)</sup> *Targets achievement 2009 and targets 2010+ \* p. 38//*

Key measures taken:

- ☑ Increasing the output of our modules by 3.2 per cent (multi-crystalline, production Germany)
- ☑ Enhancing the efficiency of solar cells by 2.5 per cent (multi-crystalline, production Germany)

Cost reductions were supported by many individual (including minor) savings in the entire production chain, various process improvements in production and the qualification of alternative supplier products or suppliers.

In 2009 we developed the following **new products and product improvements** marketlaunch:

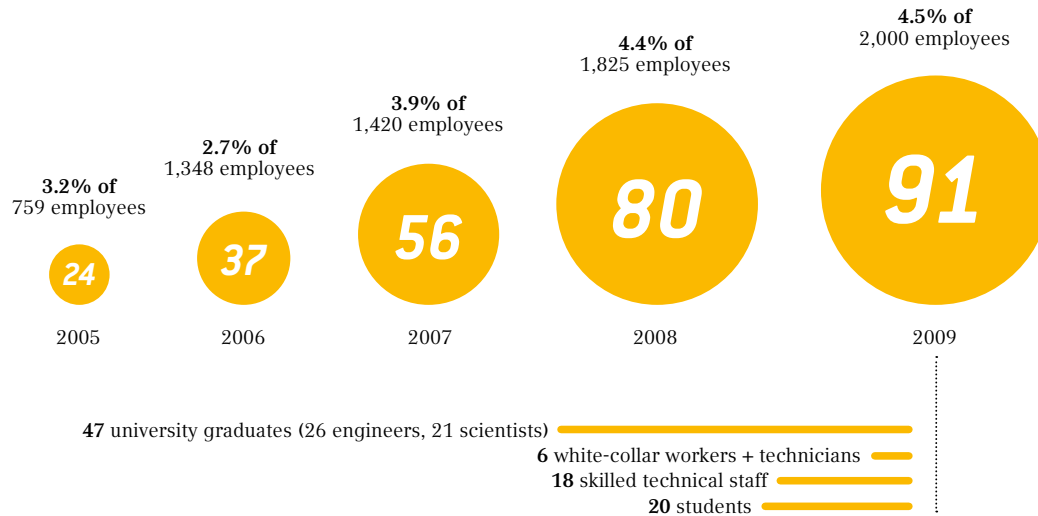
- Sunmodule Plus® SW 220-235 mono black: mono-crystalline black module (module format: 1675 mm x 1001 mm) and Sunmodule Plus® SW 145-155 Compact mono black: mono-crystalline black module (module format: 1675 mm x 682 mm)

→ FUTURE PERFORMANCE POTENTIAL: Tapping additional customer groups through the product feature “aesthetics”



- Expansion of our product range in the off-grid segment in order to include modules with high-performance 6-inch cells  
→ FUTURE PERFORMANCE POTENTIAL: Tapping off-grid markets (Central/South America, Africa, Asia/Pacific) through performance
- SunCarport®: combination of carport and solar system  
→ FUTURE PERFORMANCE POTENTIAL: Environment-friendly solar power forming the basis for electric mobility
- Sunfix® kombi: combined roofing and assembly system, universal solution for many different roof constructions  
→ FUTURE PERFORMANCE POTENTIAL: Tapping additional potential for solar rooftop systems
- Sunfix® plus: assembly system for all conventional inclined roofs, facilitates rapid assembly, saves time and material  
→ FUTURE PERFORMANCE POTENTIAL: Expanding our market position in the rooftop systems market through better assembly options
- Energyroof® for integrated roof solutions with laminate format: 1670 mm x 677 mm  
→ FUTURE PERFORMANCE POTENTIAL: Expanding our market potential concerning integrated systems through greater flexibility and ease of assembly
- Lead-free modules  
→ FUTURE PERFORMANCE POTENTIAL: Re-certification as a basis for market launch
- New module frames offering better stability and lower aluminium consumption  
→ FUTURE PERFORMANCE POTENTIAL: Reducing the specific consumption of materials (on improved quality parameters), boosting our competitiveness and reducing energy pay-back
- Development of purer crystallization processes; examination of impurities and defect clusters as well as development and optimization of measurement methods to characterize their impact on the efficiency of solar modules; avoidance of degradation mechanisms  
→ FUTURE PERFORMANCE POTENTIAL: Enhancing materials quality (mechanical and electronic properties of wafers and cells)

## ③0 DEVELOPMENT OF OUR R&amp;D HEADCOUNT



**INCREASE IN R&D HEADCOUNT.** Our employees are a crucial factor for the success of our R&D activities. We therefore attach a great deal of importance to winning and retaining skilled technical and management staff. In 2009 we again increased the headcount of our R&D subsidiary, SOLARWORLD INNOVATIONS. The number of employees rose by 13.8 (previous year: 42.9) per cent. They accounted for around 4.5 (previous year: 4.4) per cent of the total group headcount.

Since our segment reporting was adjusted this year → *Segment structure adjusted • p. 049*// the indicated headcount numbers relate exclusively to SOLARWORLD INNOVATIONS GMBH, i.e. permanent employees including student staff, e.g. working or PhD students. SOLARWORLD INNOVATIONS launched its business operations on 1 January 2008.

Apart from employees of SOLARWORLD INNOVATIONS, many other employees from other group areas and our joint ventures<sup>9</sup> also performed R&D activities. In 2009, for instance, 69 (previous year: 121) employees from our production plants in Freiberg were involved in research projects implemented in the wake of state-sponsored operational trials. At SOLARWORLD AG we increased our headcount in systems engineering. We thus had eleven (previous year: 7) employees in product management, seven (previous year: 5) in construction development and three (previous year: 2) in software development.

**HIGH PERCENTAGE OF SKILLED TECHNICAL STAFF.** Due to the large variety of R&D activities required, our HR policy takes care to ensure a balanced relationship between engineers and scientists from different disciplines. In addition, the establishment of our new pilot plants and the associated development activities implemented in close relationship with production also leads to a high percentage of skilled workers in SOLARWORLD INNOVATIONS. [⑩ Development of our R&D head count • p. 094](#)// We attach great importance to training and promoting highly qualified junior staff within our group, [➔ Inspiring, gaining and retaining employees with a strong employer brand • p. 107](#)// as reflected by a large number of student staff.

**COOPERATION SCHEMES STRENGTHEN KNOWLEDGE BASE.** In the period under review, we expanded our in-house know-how through cooperation projects with universities, institutes and other external centers of competence. In 2009 we cooperated with a total of 25 international research institutes (previous year: 21), an increase of 19 per cent year-on-year.

Our R&D teams at our Freiberg site cooperate and network closely with scientific institutions on a joint technology campus, above all with the Technical University and Mining Academy Freiberg (TUBA), and the Fraunhofer Technology Center for Semiconductor Materials (THM) as well as start-up companies in the neighboring Start-Up and Innovation Center, Freiberg (GIZeF).

We also support basic research and development and the German photovoltaic<sup>9</sup> research community through cluster projects such as SolarFocus, LOANA, PV Reliability. Examples of successful cooperation with external partners include a project between SOLARWORLD and the Fraunhofer THM Freiberg, the Fraunhofer Institute for Integrated Systems and Component Technology (IISB) Erlangen. Cooperating closely, researchers found out how to avoid special materials faults in the industrial production of silicon crystals and thus considerably cut costs. The teams received the Georg Waeber Innovation Award 2009 of the Sponsorship Association for Microelectronics e.V.

**EXTERNAL KNOW-HOW COMPLETS IN-HOUSE DEVELOPMENT.** In the framework of close cooperation to develop an innovative metallization process for solar cells, we secured an exclusive option concerning the basic know-how of our development partner. Should the process prove ready for production in 2010, as scheduled, we will be able to draw on this option. We will thus optimally complete our in-house innovation in this area, and are seeking to achieve a unique product feature.

Other than that, we did not purchase any essential know-how in the period under review, nor in previous years. Nevertheless, SOLARWORLD had of course access to additional external know-how through contracts or cooperation schemes, in particular with equipment manufacturers and research institutes.



**CONSIDERABLE RISE IN REGISTERED INVENTIONS.** Protecting intellectual property is a top priority for SOLARWORLD, not least due to the tightening of the competitive situation in the solar industry, and it is secured through our central IP management. Group-wide, our staff registered 28 (previous year: 18) inventions in 2009, a considerable increase of 55.6 per cent year-on-year. The IP ratio at our German sites and the ratio of registered inventions to our R&D headcount, also rose substantially to 31 (previous year: 23) per cent in 2009.

Another task of our IP management is to continually monitor the economic efficiency of our patent portfolio. In 2009, activities included removing old patents with a low cost-benefit ratio from our stock of property rights and property rights families so that its number declined year-on-year.

**EFFICIENCY TARGET ACHIEVED.** Cost reductions form the benchmark used to measure our research efficiency. Our minimum target for 2009 was to offset the decline as at 1 January 2010 established by the German Renewable Energies Sources Act. Last year, the group succeeded in reducing costs in line with that target corridor – through continuous improvement, based in particular on the increase in module output and the efficiency of our solar cells. <sup>(28)</sup> *Targets Achievement 2009 and targets 2010+ • p. 038//*

### **(31) PERFORMANCE INDICATORS IP RIGHTS**

	Registered inventions	IP ratio*	IP rights or applications owned	IP rights families owned
2008	18	23%	220	103
<b>2009</b>	<b>28</b>	<b>31%</b>	<b>209</b>	<b>87</b>

\* Ratio of registered inventions to number of R&D employees

### **(32) DEVELOPMENT OF R&D EXPENSES\***

	2006	2007	2008	2009
Total R&D expenses (in m€)	8.6	10.8	13.0	<b>12.0</b>
Sponsored portion (in %)	45.3	34.2	18.5	<b>15.0</b>

\* Disclosures excluding research and development activities of our researching joint ventures and the expenses of Sunicon AG ("Production Germany" segment) and SolarWorld AG ("Trading" segment)

### **(33) RESEARCH RATIO AND RESEARCH INTENSITY // IN PER CENT\***

	2006	2007	2008	2009
Research ratio	1.7	1.6	1.4	<b>1.2</b>
Research intensity	1.8	2.0	1.9	<b>1.2</b>

[Research ratio = R&D expenses/revenues x 100]

[Research intensity = R&D expenses/total expenses x 100]

\*Disclosures excluding the R&D activities of our joint ventures

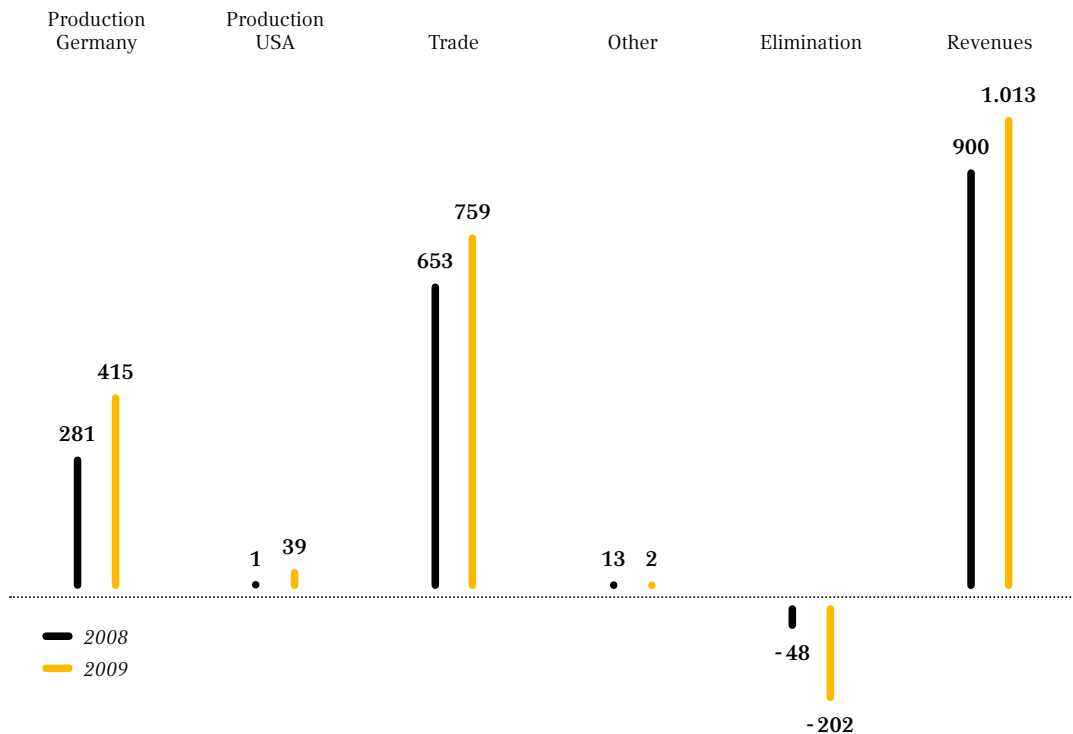
## EARNINGS, FINANCE AND ASSETS SITUATION 2009

## EARNINGS SITUATION

**DEVELOPMENT OF REVENUES AND PROFIT OR LOSS.** We were able to clearly increase our cumulated shipments of wafers and solar modules in the course of the reporting year: It increased by 38 per cent to 578 (previous year: 418) MW. The group benefited from the increasing demand for high-quality solar power products.

As compared to the previous year, group revenues increased by 12.5 per cent or € 112.3 million to € 1,012.6 million (previous year: € 900.3m). This enabled us to over-compensate for the decrease in prices the industry experienced by increasing the sales volume.

## ③ SALES SUBDIVIDED INTO SEGMENTS // IN MILLION €



The group-wide foreign quota amounted to 29.3 (previous year: 54.0) per cent. This change can be attributed to the above average increase in demand on the German solar market during the second half of the year, in particular. The decreasing Spanish market additionally added to the effect.

Earnings before interest and taxes (EBIT<sup>9</sup>) amounted to € 151.8 million (previous year: € 263.3m) in 2009. Earnings before interest, taxes and depreciation and amortization (EBITDA) amounted to € 215.5 million (previous year: € 318.4m). The group-wide 2009 EBIT margin<sup>9</sup> amounted to 15.0 (previous year: 29.2) per cent.

Group profit amounted to € 59.0 million (previous year: € 148.7m) in the reporting year. To better understand this development, the fact needs to be taken into consideration that deferred taxes<sup>9</sup> of € 32.4 million (previous year: € 19.8m) accumulated by the year-end 2009 were adjusted due to the overall unstable market environment and the previous year's group profit was influenced by the proceeds from the disposal of 65 per cent of the shares in GÄLLIVARE PHOTOVOLTAIC AB in the amount of € 13.4 million. The adjusted group profit amounted to € 91.4 million (previous year: € 135.2m).

**ORDER TREND.** Due to the difficult market environment – especially with respect to manufacturers that only produce cells or modules – wafer customers of our subsidiary DEUTSCHE SOLAR AG ordered less than the agreed quantity in 2009. As the underlying contracts stipulate take-or-pay obligations<sup>9</sup>, the customers were contacted successively in order to compensate for order shortages by, for instance, reordering. At this point, we also benefited from our strategic positioning as an integrated solar technology manufacturer, which was – at the same time – the answer to the increasing demand for modules all over the world: We were able to compensate for default risks by conducting a strategic shifting of externally scheduled wafer quantities into inner-group processing. ➔ [Default risks](#) • p. 122 //; ➔ [Sales and price risks](#) • p. 122 //

**DEVELOPMENT OF MATERIAL INCOME STATEMENT ITEMS.** As compared to the previous year, employee expenses increased by € 9.7 million to € 99.8 million (previous year: € 90.1m). This increase is mainly due to a continuous increase of employees within the scope of our consistent global expansion of manufacturing capacities and the increased shipments. The employee expense ratio was slightly reduced by 0.4 percentage points to 9.4 (previous year: 9.8) per cent.

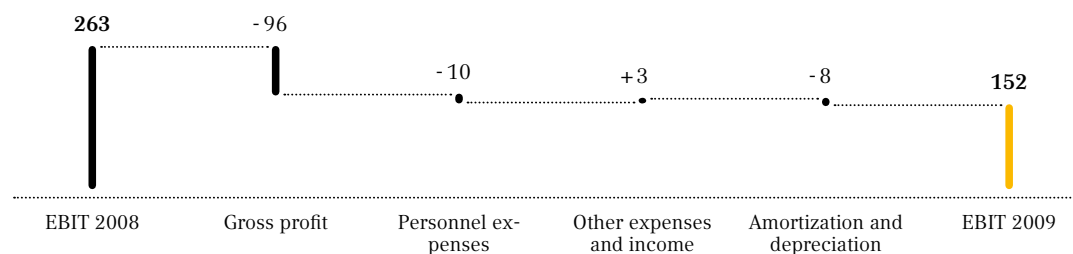
The cost of materials quota increased to 64.9 (previous year: 49.2) per cent. This is mainly due to price reductions and the increase in inventories of work in progress and finished goods measured at cost on 31 December, 2009.

Amortization and depreciation increased by € 8.5 million to € 63.7 million (previous year: € 55.2m) as a result of the planned continuation of investments in the expansion of manufacturing capacities.

The increase in other operating expenses by € 22.2 million to € 108.9 million (previous year: € 86.7m) can mainly be attributed to the increased production and shipments as well as investments in expanding brand recognition. The expense quota amounted to 10.2 (previous year: 9.4) per cent.



35 DEVELOPMENT OF MATERIAL ITEMS OF THE INCOME STATEMENT // IN MILLION €



As compared to the previous year, and especially due to the reversal of customer advances in the amount of € 25.4 million, other operating income rose by € 24.5 million to € 50.7 million (previous year: € 26.1m).

After the previous year's financial result was burdened by write-downs on securities, the financial result for the reporting year increased by € 54.5 million to € -20.1 million (previous year: € -74.6m).

36 FIVE-YEAR-COMPARISON OF THE EARNINGS SITUATION\* // IN K€

	2005	2006	2007	2008	2009
Revenue	355,971	515,246	698,818	900,311	1,012,575
Revenue from continued operations		509,139	689,588	900,311	1,012,575
Changes in inventories products	12,387	30,916	-17,670	15,160	48,830
Own work capitalized	3,359	590	542	7,740	3,117
Other operating income	14,856	96,185	57,253	26,123	50,653
<b>Operating performance</b>	<b>386,573</b>	<b>636,830</b>	<b>729,713</b>	<b>949,334</b>	<b>1,115,175</b>
Cost of materials	-210,902	-302,988	-333,654	-454,060	-691,062
Personnel expenses	-37,780	-54,958	-75,004	-90,130	-99,783
Amortization and depreciation	-19,687	-41,954	-42,054	-55,166	-63,659
Other operating expenses	-29,590	-59,351	-80,129	-86,718	-108,865
Subtotal	-297,959	-459,251	-530,841	-686,074	-963,369
<b>Result of operations</b>	<b>88,614</b>	<b>177,579</b>	<b>198,872</b>	<b>263,260</b>	<b>151,806</b>
Financial result	-4,850	1,285	-22,962	-74,591	-20,054
Taxes of income	-31,782	-49,811	-65,027	-53,422	-72,779
Result from discontinued operations (after tax)		1,513	2,373	13,432	
<b>Consolidated net income</b>	<b>51,982</b>	<b>130,566</b>	<b>113,256</b>	<b>148,678</b>	<b>58,973</b>

## ③7 INDICATORS // IN PER CENT

	2005	2006	2007	2008	2009
<b>Return on sales</b> (Consolidated net income/revenue)	14.6	25.3	16.2	16.5	5.8
<b>Cost of materials quotient</b> (Cost of materials/revenue from continued operations plus changes in inventory and own work capitalized)	56.7	56.0	49.6	49.2	64.9
<b>Personnel expenses ratio</b> (Personnel expenses/ revenue from continued operations plus changes in inventory and own work capitalized)	10.2	10.2	11.2	9.8	9.4

\* In order to show the operating result adjusted for currency translation gains and losses the group decided in 2009 to report the exchange rate result in the Income Statement (P&L) under the item "Other Financial Result". The previous year's figures were appropriately adjusted. → [Notes/No. 6. Changes in Disclosure • p. 165//](#)

## FINANCIAL SITUATION

**PRINCIPLES AND OBJECTIVES OF FINANCIAL MANAGEMENT.** Our financial management is geared to short- to medium-term requirements of our operations and our long-term business strategy. → [Strategic financing 2009/2010+ • p. 036//](#)

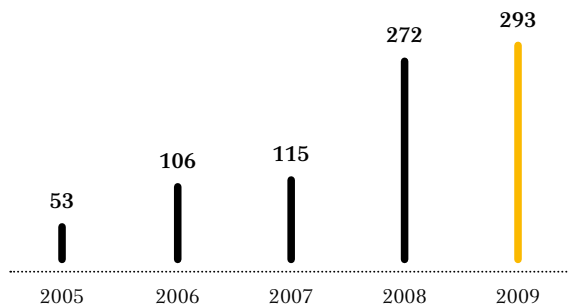
Our aim is to strengthen the financial flexibility of the group and to reduce our dependence on banks by employing a broad range of financial instruments and measures. Our operations therefore form the main pillar of the group's liquidity reserves. In addition, cash needs are supplemented by bonds, promissory notes and loans. → [Financing analysis • p. 100//](#) Through central cash management, liquidity items are invested in an up-to-date daily manner, mostly in the fixed deposit area (day-to-day money, weekly and monthly deposits) in the public and private German banking sector. In the scope of our financing structure, we aim at maintaining a stable equity ratio<sup>9</sup> of some 40 per cent over the longer term.

Our international credit agreements are subject to terms that, in part, run until 2018 and will require respective follow-up financing no sooner than 2014. A list of the redemption structure of our non-current credit lines can be found on page 199, note 61e. Our central financing strengthens our negotiating position with regard to banks and other market participants and enables us to take out loans subject to the best possible terms. → [Notes/ Principles and objectives of financial risk management • p. 196//](#) Solar World's further growth rests on a sound foundation.

**FINANCING ANALYSIS.** Compared to 31 December 2008, equity<sup>9</sup> increased by € 24.4 million to € 865.5 million (31 December 2008: € 841.1m). At balance sheet date, the equity ratio amounted to 39.0 (31 December 2008: 39.7) per cent.



38 DEVELOPMENT OF INVESTMENTS // IN MILLION €



Financial liabilities increased by € 85.4 million to € 789.5 million (31 December 2008: € 704.1m), 95.1 per cent of which are non-current liabilities. → [Notes/Liquidity risks • p. 199//](#)

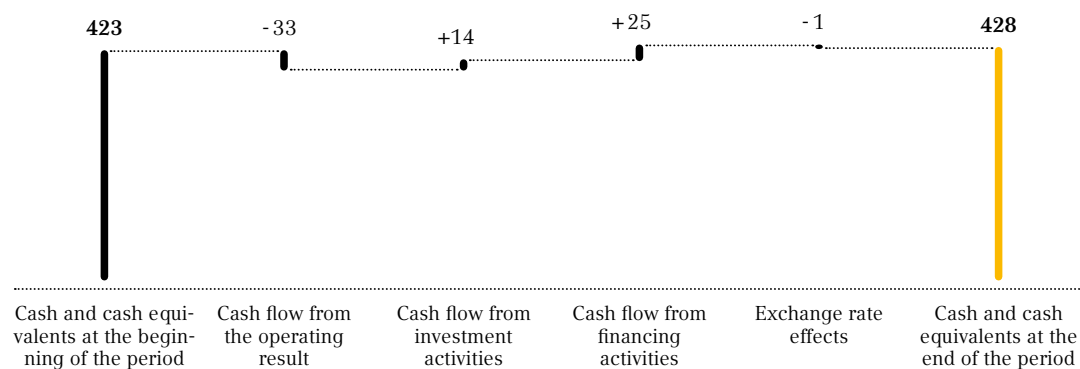
Investment subsidies and grants shown in non-current liabilities amounted to € 68.3 million (31 December, 2008: € 78.8m) as at balance sheet date. These public funds for the expansion of manufacturing capacities deferred on the liabilities side of the balance sheet will be released to income over the course of the useful lives of the subsidized investments.

The remaining non-current liabilities decreased by € 41.8 million to € 250.7 million (31 December 2008: € 292.5m). The non-current proportion of customer advances for long-term wafer supply contracts recognized therein amounted to € 242.9 million (31 December 2008: € 265.1m) as at balance sheet date.

**SIGNIFICANCE OF OFF-BALANCE FINANCING INSTRUMENTS FOR THE FINANCIAL POSITION** . Off-balance financing instruments were not utilized for financing purposes of the group.

**INVESTMENT ANALYSIS.** In 2009, SOLARWORLD increased the investments in intangible assets<sup>9</sup> and property, plant and equipment by eight per cent to € 293.2 million (previous year: € 271.6m). Our investment activities focused mainly on the expansion of wafer production at DEUTSCHE SOLAR AG at the Freiberg, Germany, location (€ 138.2m), and the integrated cell and wafer production at the Hillsboro, USA, location (€ 107.5m). In addition, we invested in the expansion of research and development activities of SOLARWORLD INNOVATIONS GMBH (€ 19.8m), and cell production of DEUTSCHE CELL GMBH (€ 11.1m). A total of € 16.6 million were invested at other locations.

## ③⑨ CASH FLOW RECONCILIATION // IN MILLION €



**LIQUIDITY ANALYSIS.** Free liquidity (liquid funds and other financial assets) amounted to € 509.7 million (31 December 2008: € 836.1m) as at balance sheet date. Liquid funds amounting to € 428.1 million (31 December 2008: € 431.7m) include cash and cash equivalents that mainly consist of day-to-day money and fixed term deposits. In addition, the company held capital market products amounting to € 81.6 million (31 December 2008: € 404.4m) as at the balance sheet date.

The cash flow<sup>a</sup> from operating activities amounted to € -33.0 million (previous year: € 320.5m) in 2009.

Cash flow from investment activities in the amount of € 14.5 million (previous year: € -165.2m) was mainly influenced by payments for investments in fixed assets in the amount of € -318.4 million and a cash inflow of € 320.1 million from the reversal of financial assets.

Cash flow from financing activities amounted to € 24.9 million (previous year: € 1.8m), and is primarily characterized by taking out a proportion of the syndicated loan line in an amount of € 100 million. In addition, it includes interest payments of € -39.7 million, an outflow of means for the redemption of loans amounting to € -18.6 million, as well as payments due to dividend distributions in an amount of € -16.8 million.

## ④⑩ FIVE-YEAR COMPARISON OF THE FINANCIAL SITUATION // IN K€

	Dec 31, 2005	Dec 31, 2006	Dec 31, 2007	Dec 31, 2008	Dec 31, 2009
Consolidated net income	51,982	130,566	113,256	148,678	58,973
Liabilities (non-current and current)	229,523	407,089	1,012,920	1,279,547	1,351,588
Equity	217,056	597,321	691,546	841,075	865,462
<b>Total assets</b>	<b>446,579</b>	<b>1,004,410</b>	<b>1,704,466</b>	<b>2,120,622</b>	<b>2,217,050</b>

## ④ INDICATORS

	Dec 31, 2005	Dec 31, 2006	Dec 31, 2007	Dec 31, 2008	Dec 31, 2009
<b>Return on equity</b> (Consolidated net income/equity); in %	23.9	21.9	16.4	17.7	6.8
<b>ROCE (key date)</b> (EBIT/Capital Employed <sup>1</sup> ); in %	49.4	38.4	36.5	37.4	13.7
<b>First degree liquidity</b> (Liquid funds + securities/ current liabilities)	1.4	2.3	7.0	4.5	2.2
<b>Second degree liquidity</b> (Liquid funds + means available on short notice/current liabilities)	1.7	3.0	8.1	5.0	3.2
<b>Third degree liquidity</b> (Current assets/current liabilities)	2.7	4.8	11.3	7.8	5.8

\* Intangible assets and property, plant and equipment less investment subsidies plus net current assets excluding financial means and financial liabilities

## ASSET SITUATION

**ASSET STRUCTURE ANALYSIS.** As compared to 31 December 2008, the balance sheet total increased by € 96.4 million to € 2,217.1 million (31 December 2008: € 2,120.6m).

In the course of the reporting year, non-current assets increased by € 214.9 million to € 881.8 million. This can mainly be attributed to increased property, plant and equipment due to expansion investments. Working capital<sup>9</sup> changed to € 449.6 million as of 31 December 2009. Inventories amounted to € 598.2 million (31 December 2008: € 523.8m) as of 31 December 2009. Customer advances recognized within inventories came to € 384.3 million (31 December 2008: € 377.9m). Due to our significantly increased shipments in the business year and especially during the last quarter, trade receivables increased to € 211.4 million (previous year: € 71.2m). In addition, trade payables increased by € 13.5 million to € 83.9 million (31 December 2008: € 70.4m). As at 31 December 2009, customer advances amounted to € 276.0 million (31 December 2008: € 287.0m).

**OFF-BALANCE ASSETS.** Per balance sheet date, our group only had assets that were financially visible.

**SIGNIFICANCE OF OFF-BALANCE FINANCING INSTRUMENTS FOR THE FINANCIAL STANDING.** Off-balance financial instruments do not influence the financial standing of our group.

## ④ FIVE-YEAR COMPARISON OF THE ASSET SITUATION // IN K€

Assets	Dec 31, 2005	Dec 31, 2006	Dec 31, 2007	Dec 31, 2008	Dec 31, 2009
Non-current assets	219,776	362,514	422,725	666,884	881,824
Current assets	226,803	641,896	1,281,741	1,453,738	1,335,226
<b>Total assets</b>	<b>446,579</b>	<b>1,004,410</b>	<b>1,704,466</b>	<b>2,120,622</b>	<b>2,217,050</b>
Capital	Dec 31, 2005	Dec 31, 2006	Dec 31, 2007	Dec 31, 2008	Dec 31, 2009
Equity	217,056	597,321	691,546	841,075	865,462
Non-current liabilities	144,284	273,722	899,266	1,093,559	1,119,411
Current liabilities	85,239	133,367	113,654	185,988	232,177
<b>Total equity and liabilities</b>	<b>446,579</b>	<b>1,004,410</b>	<b>1,704,466</b>	<b>2,120,622</b>	<b>2,217,050</b>

## ④ INDICATORS

	Dec 31, 2005	Dec 31, 2006	Dec 31, 2007	Dec 31, 2008	Dec 31, 2009
<b>Equity ratio</b> (Equity/total assets); in %	48.6	59.5	40.6	39.7	39.0
<b>Investment intensity</b> (Non-current assets/ total assets); in %	49.2	36.1	24.8	31.4	39.8
<b>Frist degree equity-to-fixed assets ratio</b> (Equity/Non-current assets)	1.0	1.6	1.6	1.3	1.0
<b>Second degree equity-to-fixed assets ratio</b> (Equity + Non-current liabilities/ Non-current assets)	1.6	2.4	3.8	2.9	2.3

**OTHER INTANGIBLE VALUES.** We assess our international investor and capital market contacts as stable. We strengthen them through comprehensible strategic positioning and transparent communication. → *Investor Relations work improved* • p. 067//

We mainly generate process advantages regarding current and future business from our integrated research and development activities on all levels of value creation. → *Innovation report 2009* • p. 104//  
→ *Future products and services* • p. 142//


The expansion of customer relations that are of value is part of our sales strategy. We succeeded in increasing brand recognition yet again in the reporting year. We therewith created a sustainable brand value, both for our sales partners and for ourselves. → *Brand investments stepped up – demand effects for our group and our customers* • p. 084//

## HUMAN RESOURCES 2009

**SECURING SUSTAINABLE GROWTH WITH STRATEGIC PERSONNEL MANAGEMENT.** The right personnel strategy helps us to achieve our ambitious corporate objectives. The major components of this strategy are the qualitative and quantitative expansion of employment in relation to our group growth. By investing in the qualification of our employees we develop and maintain the existing know-how in the company, optimize our internal processes and, at the same time, open up individual career perspectives. New recruitments will help us gain additional people to enable us to expand our production on a broad basis and to inject new ideas into the SOLARWORLD Group. Both of these things taken together create a sustainable basis for our planned growth and guarantee safe jobs for our employees in the future.

We created 175 new jobs group-wide in the reporting period and thus increased the number of employees by ten per cent in comparison with the previous year. As at 31 December 2009 SOLARWORLD had a total of 2,000 employees on its payroll. The proportion of female employees grew to 22 (previous year: 19) per cent.

New recruitments were mainly made in the areas of Production, Research & Development and International Sales as well as in central group functions such as Controlling, Accounting, IT, Human Resources, Procurement, Technical Service, Logistics and Marketing.

In Germany, the number of employees increased by twelve per cent to 1,341 (previous year: 1,198). In the USA, also, the strategically important market of the future, we upped our workforce. The headcount there rose by 6 per cent to 644 (previous year: 609). Staff fluctuation increased in the year under review and amounted to a group-wide figure of 9.3 (previous year: 3.6) per cent. This was mainly attributable to restructuring measures at our US sites. In Camarillo, California, the legacy module line was taken out of service in the first quarter of the year and a new, highly efficient line was commissioned. In Vancouver, Washington, the production facility was refocused in the first quarter to the reprocessing of silicon material. At these sites, we employed less people. In Hillsboro, Oregon, on the other hand, we created an additional 124 regular employment jobs. The absenteeism rate in the SOLARWORLD Group amounted to 3.4 (previous year: 2.5) per cent. As far as the other recorded social service indicators such as health protection are concerned, we refer at this point to the integrated  [Report on sustainable corporate management/Social service indicators](#) • p. 242//

**ASSUMING RESPONSIBILITY – CREATING TRAINING OPPORTUNITIES.** In the year under review 86 (previous year: 83) young people received qualified vocational training at the German locations of SOLARWORLD. The training rate was 6 (previous year: 7) per cent. In 2009 we took on 21 (previous year: 26) new trainees/apprentices. In addition, we offered 9 (previous year: 8) young people an opportunity to start a practice-oriented sandwich course on “Industrial Management”. In the reporting period we gave 61 (previous year: 64) per cent of the trainees an employment contract after they had passed their final examination.

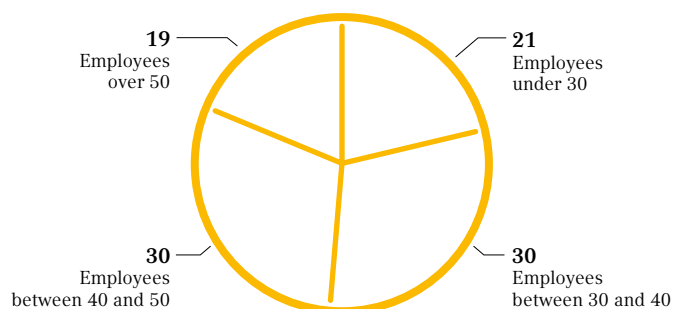


④④ **HEADCOUNT DEVELOPMENT // AS AT CUT-OFF DATE 31 DECEMBER**

	2008	Of which trainees	2009	Of which trainees	+/- absolute
Germany	1,198	83	1,341	86	+143
USA	609	0	644	0	+35
Rest of the World	18	0	15	0	-3
Total	1,825	83	2,000	86	+175

**PERSONNEL EXPENDITURE ROSE IN LINE WITH GROWTH.** Personnel expenditure in the year under review amounted to € 90.8 million (previous year: € 90.1m). This is equivalent to a share of 10.4 (previous year: 13.1) per cent of the total operating expenditure and 9.9 (previous year: 10.0) per cent of total group revenues.

➔ *Development of material income statement items • p. 098//*

④⑤ **AGE STRUCTURE IN THE SOLARWORLD GROUP // IN PER CENT**

**EMPLOYING TEMPORARY STAFF FOR SPECIFIC TASKS.** In 2009, also, the specific employment of temporary staff – some of whom have qualified technical training – was again an important tool in our personnel policy. We can thus act quickly and flexibly at our production sites during phases of expansion. In Freiberg alone, 36 people found future-oriented permanent employment with SOLARWORLD in 2009 as a result of their temporary work for the company. Including our temporary staff, a total of 2,725 (previous year: 2,498) people were employed by the SOLARWORLD Group as at the cut-off date of 31 December 2009.

**DEVELOPING A LEADERSHIP CULTURE TOGETHER.** Our worldwide SOLARWORLD locations continued to grow successfully in the reporting period. In order to further improve our international cooperation we want to develop our SOLARWORLD corporate culture<sup>9</sup> appropriately. It will be designed to support our strategy while taking our cultural diversity into consideration. This is why, in the year under review, we started to work intensively on the concept and establishment of a cross-location set of values for a SOLARWORLD leadership culture. In the future, all management staff are to align their actions with this culture and thus

also improve group-wide cooperation – an important success factor for the group as a globally operating company. We started the process at our headquarters in Bonn as well as in Camarillo in the USA. In this process, members of the first management level identified corporate values considered to be relevant to corporate success. → *Strategy and action* • p. 033// A group-wide validation phase will follow as the next step of implementation from 2010 onwards. → *Human resources – future development* • p. 144//

**INSPIRING, GAINING AND RETAINING EMPLOYEES WITH A STRONG EMPLOYER BRAND.** A priority of our 2009 personnel strategy was to position SOLARWORLD more strongly as a national and international employer. It is only in this way that we can gain the best talents for the group in the competition for qualified employees, and also lastingly retain employees who already work for us. Within the framework of our “Employer Branding Strategy” we have, for example, strengthened our PR and press activities and have thus specifically appealed to potential applicants by way of media reports. In addition, we have increased our presence at the appropriate fairs and exhibitions. Through such internal and external measures we want to communicate our vision and our corporate culture in Germany and in the USA and inspire people with the ideas of SOLARWORLD.

This is the kind of commitment that pays off: According to a joint study by Manager Magazin and the Berlin trendence Institute of August 2009, SOLARWORLD is one of young German engineers’ desirable employers. For the four editions of the study, some 25,000 students were interviewed – in the “Engineering Edition”, SOLARWORLD came in at 15<sup>th</sup> place as the highest ranking newcomer.

In order to awaken enthusiasm and interest in our young engineers for the future technology of photovoltaic<sup>e</sup> engineering, we continued our higher education marketing in the reporting period. This included an extensive offer of internships, theses and doctorates in our company as well as dialogue with students and professors in the departments of electrical engineering, mechanical engineering, process technology, physics and chemistry. Our cooperation with the “Portland Community College (PCC)” in the vicinity of our US site in Hillsboro was continued in the year under review. In the context of this partnership we support the qualification of “Photovoltaic Technology Associate’s Degree”. We also expanded our support for the MECOP Internship program for the combined universities of Oregon State, Portland State, and the Oregon Institute of Technology. We also continued the excellence program started in 2008 for doctorates in the field of silicon-based photovoltaic technology (“Graduate School of Photovoltaic Technology”) in cooperation with the Technical University and Mining Academy (TUBA) at our German production site in Freiberg. In September of 2009 we also awarded the SOLARWORLD Junior Einstein award<sup>r</sup> for the fourth time. The award, which carries prize money of € 5,000, goes to young scientists who do their research in photovoltaic technology or related topics. The award winner in 2009 was the young scientist Dr. Thomas Müller. In his doctoral thesis he dealt with amorphous silicon layers for surface passivation and emitter and rear side coatings on crystalline silicon.

**PROMOTING EMPLOYEES, DEVELOPING TALENTS, SHAPING GROWTH.** At SOLARWORLD, personnel development is of strategic importance. Accordingly, the direct costs for education and training in the year under review amounted to a group-wide figure of € 0.71 million (previous year: € 0.70m), rising analogously to the increase in staff numbers. We consider this to be an investment in the future because, over the medium term, a lack of skilled workers as an effect of demographic and structural change will influence the German economy more than the current economic crisis. According to the Association of German Industry and the Association of Employers' Federations, we are already short of some 60,000 skilled workers in the computer science, natural science and engineering segments. Those who want to be successful must therefore not only gain qualified new staff but also specifically develop those who are already working for the company. The personal development perspectives of each employee are identified on an individual basis in an annual employee appraisal interview and appropriate continuing education measures are derived from this.

Another future-oriented element of our personnel development is the cross-location know-how transfer within SOLARWORLD. Through an exchange of experts we can efficiently use our global engineering know-how "Made by SOLARWORLD" at all our locations and, at the same time, expand it group-wide. This is a competitive advantage for SOLARWORLD and also represents a career opportunity for the individual employee. We have developed a posted labor directive and offer inter-cultural training in order to optimally further the mobility of our employees, to make it easier for them to get used to a new living and working environment, and to reduce language and cultural barriers. An example: In 2009 we started our "Operator/Worker Exchange Program". To date, the first technicians from the Freiberg production area worked at our Hillsboro, USA, site for about two months. Starting in January of 2010, US employees began a similar exchange in Freiberg in order to contribute their experience and, reciprocally, to learn from their German colleagues. This program will be consistently continued and expanded to other employee groups. The regular exchange of Best Practice Methods among our different sites is part of our knowledge management. Moreover, it also improves the cooperation and cohesion within the group by sustainably strengthening the networking relationships.

In 2009, our new international executive development program commenced. SOLARWORLD AG needs a strong management that guides employees efficiently – so that together we can attain the goals set and continue to succeed in competition. This is why we started our SOLARWORLD management feedback – initially in Bonn – to implement a 360° assessment for managers in 2009: Feedback comes from supervisors, from colleagues, from immediate co-workers, and also from self-assessment. These responses create the basis for deriving, agreeing upon, and implementing individually coordinated development measures.

**EMPLOYEES PARTICIPATE IN THE COMPANY DEVELOPMENT.** Part of our corporate culture is to permit our employees to participate in the success of SOLARWORLD. This is why our remuneration concept contains a profit-oriented participation model (GOMAB)<sup>®</sup>. At the German locations the employees, in addition to their salaries, receive a performance-related bonus. At the Freiberg location, over 87 per cent of the employees were paid according to collective bargaining agreements in 2009. GOMAB is part of the in-house collective





bargaining agreements of the Freiberg companies and replaces other collective bargaining elements. In 2009 the GOMAB bonus payments amounted to € 8.7 million (previous year: € 14.2m). In Germany we also offer an in-company pension plan with an employer's contribution as well as benefits to promote capital formation with the maximum contribution from the employer. In collective bargaining negotiations with the miners', chemical workers' and energy workers' union (IG BCE), our German subsidiaries, DEUTSCHE SOLAR AG, DEUTSCHE CELL GMBH, SOLAR FACTORY GMBH and SOLARWORLD INNOVATIONS GMBH, jointly agreed in 2008 to introduce an individual performance bonus for employees on the negotiated wage rate at the beginning of the year 2009. Payment of the performance bonus is designed to reward employees above-average and very good performance.

In the USA, we provide a Company Bonus similar to the German GOMAB. This bonus is based on group-wide indicators as well as on the performance of SOLARWORLD INDUSTRIES AMERICA INC. and SOLARWORLD CALIFORNIA INC. In 2009, these payouts amounted to € 1.1 million (previous year: € 0.8m). Additionally, in the USA we contribute to the retirement savings plan (401k) of our employees. Furthermore, we offer an annual Individual Bonus Plan (IBP) to professional employees and managers in key positions.

In the year under review we introduced a profit-sharing model similar to GOMAB at our location in South Africa. At other locations such as Singapore and Spain there are also separate bonus systems.

**MANAGING IDEAS WITH THE COMPANY SUGGESTION SYSTEM.** As a matter of principle there is an open working climate within SOLARWORLD which, due to flat hierarchies and short decision-making paths, is an excellent basis for the quick implementation of good ideas. At all locations the executives in charge check and coordinate suggested improvements on a continuous basis. At our location in Bonn, particularly, we intensively use the additional advantage of direct contact and open communication with the Management Board to permanently optimize processes and structures.

In addition, SOLARWORLD promotes the suggestion system with special programs: At the production locations in Germany and the USA we have, for example, also established a formal suggestion system. In Hillsboro, USA, we created focus groups of employees at the beginning of 2009 that are tasked with making proposals concerning conversion of the shift system. The objective was to optimize effectiveness for the company and employees in production. These were efforts that paid off for both sides: The result was that, in July 2009, the old rotation principle was replaced by a compressed working week. The new working time model provides for longer shifts in a shorter working week. The new system improvements benefit our employees and at the same time meets our operational requirements.

At our German location Freiberg a total of 209 (previous year: 164) suggestions for improvement were made in 2009. The cost savings from the successfully implemented suggestions was estimated to amount to € 57,950 (previous year: € 35,100).

---

Another instrument for continuous process optimization is our Total Productive Management (TPM)\*.

➔ *Interlinking of management tools* • p. 044// Presently, 27 teams are working at our Freiberg location on increasing process efficiency and thus on cutting costs. TPM is not only limited to production but also refers to the areas of Technical Service, Logistics, and IT. In the future we want to increasingly motivate our employees to participate in TPM, which is why we have offered a “Challenge Cup” that is going to be awarded every six months based on factors such as the results of the monthly “walk-arounds” as well as the audits. Initially, only teams from Freiberg may apply, but in the future it is conceivable that the “Challenge Cup” will also be offered globally.

**INQUIRING ABOUT EMPLOYEE SATISFACTION, DISCOVERING IMPROVEMENT POTENTIALS.** In the course of the year under review SOLARWORLD has identified different indicators that permit conclusions to be drawn as to employee satisfaction. ☉ *Report on sustainable corporate management/social key performance indicators* • p. 242//

What is more, employees at our German locations were able to take part in the “Germany’s Best Employer 2010” study by the Great Place to Work® Institute in June 2009, in which questions were asked about team orientation and fairness within the company. This voluntary offer was taken up by 58 per cent of the employees. SOLARWORLD successfully placed itself on the list of the 100 best employers in Germany.

➔ *SolarWorld is one of Germany’s best employers* • p. 111//



# SUPPLEMENTARY REPORT

## DISCLOSURE OF TRANSACTIONS OF PARTICULAR IMPORTANCE

**BOND SUCCESSFULLY PLACED.** In mid-January 2010, SOLARWORLD AG successfully emitted a bond worth € 400 million. Most of the bonds were placed with financial institutes and investors in Germany and other European countries.

**SPECIAL REDUCTION OF FEED-IN TARIFFS ANNOUNCED IN GERMAN EEG.** At the end of January the Federal Ministry of the Environment presented a draft for an amendment of the EEG. Since then this has been widely discussed. The amendment is designed to come into force on 1 July 2010. It has not yet been finally passed and still needs the approval of the Bundestag. ➔ [EEG amended](#) • p. 136//

**SOLARWORLD AGAIN WINS IN THE PHOTON MODULE YIELD TEST.** According to an annual evaluation by the Photon trade journal published in February 2010, our SW 210 POLY MODULE again came out as the best module in a field test. ➔ [Facts: Quality "Made by SolarWorld"](#) • p. 088// Our module generated the highest standardized annual yield per installed capacity. The group thus again achieved top position with respect to a crucial quality criterion and purchasing argument.

**NEW FEED-IN TARIFFS ADOPTED IN EUROPEAN SOLAR MARKETS.** A new feed-in tariff<sup>9</sup> system entered into force in France in January 2010. Tariffs for integrated roof systems were reduced slightly but remained attractive by international standards at 0.58 €/kWh. The market is expected to gain additional momentum from an increase in the feed-in tariff for free-field systems, granted as a function of the radiation intensity at the respective site. In February a new feed-in tariff program was adopted in the UK; it is to enter into force as of 1 April. It will apply to plants with a maximum size of 5 MW.

**SOLARWORLD IS ONE OF GERMANY'S BEST EMPLOYERS.** For the second time, SOLARWORLD successfully participated in the survey "Germany's Best Employers" of the Great Place to Work<sup>®</sup> Institute. [www.greatplacetowork.de](http://www.greatplacetowork.de)// We achieved 55th position, having ranked 57th in 2008. The survey mainly assesses the corporate culture<sup>9</sup> in the companies taking part. Employees participate in an anonymous online survey, assessing the five dimensions of credibility, respect, fairness, pride and team orientation.



**GROUP STRUCTURE MODIFIED.** Effective 11 February 2010 our Korean joint venture<sup>9</sup> partner made use of his right to acquire 26.5 per cent of the shares in SOLARWORLD KOREA LTD. On 1 March 2010 SOLARWORLD AG agreed a joint venture with the Qatar Foundation. We will acquire a stake of 29 per cent in Qatar Solar Technologies (QST) located in the Emirate of Qatar. In addition to the Qatar Foundation (70 per cent) the Qatar Development Bank (1 per cent) will also be part of the Joint Venture. The QST will invest more than 500 million US\$ in the construction of a silicon production facility. → [Legal group structure modified](#) • p. 048//

## IMPACT OF TRANSACTIONS OF PARTICULAR IMPORTANCE

**BOND ENHANCES FLEXIBILITY.** The successful placement of our bond, which will mature in seven years, strengthens our financial flexibility for our planned growth. → [Future liquidity](#) • p. 146//

**EEG AMENDMENT INCREASES COST PRESSURE.** The announced amendment to the German Renewable Energy Sources Act (EEG) has created additional consolidation pressure within the solar sector. It will not be possible to directly offset the additional decline (on top of the reduction of 9 per cent already effected in January), in full through cost reductions. Nevertheless, SOLARWORLD will push ahead with its cost cutting program. → [Strategy and action](#) • p. 033//

**QUALITY LEADERSHIP CONFIRMED.** The renewed good rating of our solar modules in an independent test confirms our quality strategy. This gives us a key edge in international competition and strengthens our positioning as quality leader.

**SOLARWORLD BENEFITS FROM PRESENCE IN EUROPEAN MARKETS.** Europe will remain a major sales market for SOLARWORLD. The amendment to the feed-in tariff<sup>9</sup> in France and the new act in the UK will open up new potential in these young European markets for solar power technology. Demand in these two countries is expected to continue to grow over the next few years; this will benefit SOLARWORLD with its strong presence in Europe and its regional flexibility.

**STRONG EMPLOYER BRAND SECURES GROWTH.** We will only be able to continue to grow successfully if we win and retain highly qualified employees. A strong public employer brand will give us a competitive edge over our competition.

**JOINT VENTURE PARTNER BUYS STAKE IN SOLARWORLD KOREA LTD.** Thus, both SOLARWORLD AG and our partner again hold 50 per cent each in the Joint Venture.



**RAW MATERIAL SUPPLY SUPPLEMENTED.** Through the newly formed joint venture Qatar Solar Technologies SOLARWORLD AG will have access, probably from the end of 2012 onwards, to a supplementary, inexpensive source of raw material for further expansion.

## **OVERALL STATEMENT BY THE MANAGEMENT BOARD ON THE ECONOMIC SITUATION AT THE TIME OF THE REPORT**

The economic situation of the group is rated as positive by the management of SOLARWORLD AG, taking into account our net assets, financial position and results of operations resulting from the consolidated annual financial statements for 2009 and outlined above, as well as considering the ongoing business in 2010 at the time of drawing up the group management report.



# REPORT ON EXPECTED DEVELOPMENT WITH ITS MAJOR OPPORTUNITIES AND RISKS

## RISK REPORT

### OPPORTUNITY AND RISK MANAGEMENT SYSTEM

SOLARWORLD's corporate strategy underlies our opportunity and risk management<sup>9</sup> system → *Strategy and action* • p. 033// based on which the Management Board defines our risk policy. We implemented a group-wide opportunity and risk management system that is integrated into our business processes. Moreover, all fully consolidated companies of the SOLARWORLD Group are incorporated into our opportunity and risk management. → *Notes/Scope of consolidated financial statements and legal group structure* • p. 160// Risks are identified and monitored in a decentralized manner by the management of the operating business units. On the basis of a standardized reporting system, monthly risk reviews are presented to the Management Board; any current risks and opportunities are immediately notified to the Board. In close alignment with Group Controlling, the Management Board is able to assess the impact of identified risks and opportunities on our net assets, financial position and results of operations without delay and to initiate counter-measures where required.

Group-wide bodies to identify, analyze and handle corporate strategy and performance opportunities and risks include our strategy meetings, in addition to Management Board meetings. At these meetings, which take place several times a year, the Management Board discusses any possible opportunities and risks with the managing directors and Board members of the subsidiaries – also with regard to corporate issues such as HR strategy and information technology. The Group Committee, which meets once a year, also involves the managing directors and the senior managers of the operating units. These bodies form a broad group-wide basis for our opportunity and risk management and enable us to rapidly implement the decisions taken at all management levels.



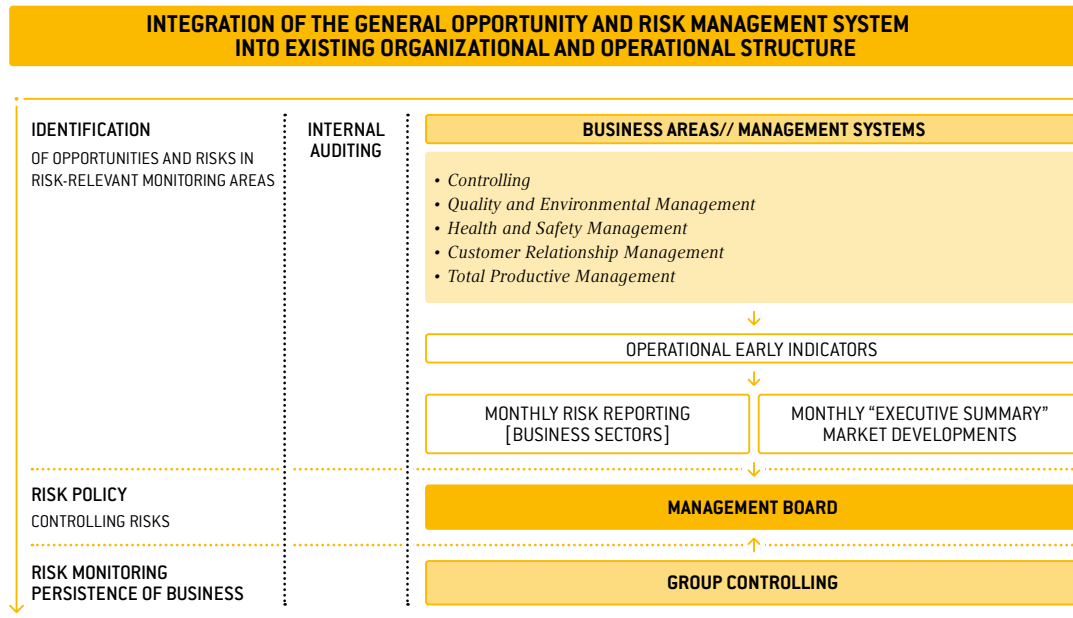
Opportunities and risks arising from the general economic conditions are determined by means of market, tendency and competition analyses in Investor Relations, Marketing and Distribution. They are evaluated and reported to the Management in the form of a monthly executive summary. In order to minimize ecological and social risks and tap economic opportunities, we have developed an integrated sustainability management system which reports directly to the Board in its function as a control and monitoring tool. We also operate an integrated group-wide quality and environmental management<sup>9</sup> system → *Interlinking of management tools* • p. 044// in order to counter risks in our process chain and make quality process and environmental standards transparent. Statistics on waste, emissions, waste water, power consumption and the use of consumables facilitate early detection and risk identification with regard to consumption data. The monitoring of laws and regulations, for instance laws and guidelines against insider trading, is the responsibility of our compliance officer, backed by legal advice from external lawyers. External specialist legal experts also provide integrated consultation on general legal risks.

In order to limit the remaining risks, SOLARWORLD has taken out corresponding insurance cover to minimize risks. The extent of the cover is regularly reviewed in order to keep pace with our steady growth. Our opportunity and risk management system is evaluated by our auditors on an annual basis.

We will only be successful over the long term if we seize opportunities while identifying risks at an early stage, analyzing them, and managing and controlling them accordingly. Considering the acceptable overall risk level, the Management Board decides whether any risks are taken in a controlled manner to seize opportunities. Where the decisions taken are of fundamental importance to the company, the Supervisory Board is also involved. We thus identify developments that might jeopardize the continued existence of our company at an early point in time.

---

④ INTEGRATION OF THE GENERAL OPPORTUNITY AND RISK MANAGEMENT SYSTEM



**INTERNAL CONTROL AND RISK MANAGEMENT SYSTEM REGARDING THE GROUP REPORTING PROCESS**

The objective of the control and risk management system regarding the (group) reporting process is to make sure that the reporting is uniform and in line with the legal requirements, the generally accepted accounting principles and the International Financial Reporting Standards (IFRS)<sup>9</sup> as well as internal group guidelines so as to give recipients of the annual financial statements true and reliable information. To this end SOLARWORLD has principles, processes and measures whose essential characteristics can be described as follows:

Within SOLARWORLD AG and/or the SOLARWORLD Group there is a clear-cut management and enterprise structure in which the various group companies enjoy a large measure of independence and individual responsibility. On this basis the functions of Finance and Accounting, Controlling and Investor Relations essential to the reporting process are controlled right across the group by appropriate departments at SOLARWORLD AG.



The functions and responsibilities of Finance and Accounting, Controlling and Investors Relations are clearly separated and allocated with mutual control processes assuring a continuous exchange of information.

The basis of the internal control system is provided by precisely defined preventive and monitoring control mechanisms like systematic and manual coordination processes, predefined approval processes, the separation of functions and the adherence to guidelines.

The financial systems used are protected against unauthorized access by appropriate installations in the IT system. Standard software is used as far as possible.

Uniform reporting is guaranteed in particular by reporting guidelines that apply group-wide and by a standardized reporting format. The guidelines and the reporting format are regularly reviewed and updated by members of the group accounting department.

The group companies prepare their financial statements locally and communicate these in the prescribed format to group accounting. They are themselves responsible for adherence to the group reporting guidelines as well as the proper and timely management of all reporting-related processes and systems. In this context they are fully supported by group accounting throughout the entire reporting process.

Adherence to the reporting guidelines as well as to time and process requirements are monitored by group accounting. In addition to systems technology controls there are manual controls and analytical audit procedures. Here the appropriate control environment is taken as much into consideration as the relevance of certain reporting facts with regard to the contents of the financial statements.

For special technical questions and complex reporting issues group accounting acts as the central interlocutor. If required external experts (auditors, qualified accounting specialists, etc.) will be consulted.

On the basis of the data supplied by the group companies consolidation will take place centrally in group accounting. At least a four-eyes-principle will apply at each level.

Independently of group accounting a monthly analysis of target/actual and actual/actual deviations is conducted by group controlling as a result of which an examination of major or implausible changes takes place at an early point in time.



## RISK MANAGEMENT SYSTEM REGARDING FINANCIAL INSTRUMENTS

The SOLARWORLD Group as an internationally operating group of companies is subject to market, liquidity and default risks within the framework of its business activities with regard to its assets, liabilities and future transactions either fixed or planned. The task and objective of risk management regarding financial instruments is to monitor these risks continuously and to limit them by way of operational and financial measures.

The monitoring of the risks involved lies in the responsibility of the respective board members and managing directors of the subsidiaries who report to the Board of Management of SOLARWORLD AG on existing and newly emerging risks. For the use and handling of financial instruments there are rules and regulations designed specifically to make sure that no major financial transactions take place without coordination with the Board of Management of SOLARWORLD AG. Derivative financial instruments are regularly only used for hedging purposes. Apart from this we refer you to the following information on the respective individual risks and the remarks in the → [Notes/Principles and Goals of Financial Risk Management](#) • p. 196//.

Financial risks such as price, currency, and interest rate risks arising through our increasing international business are countered by means of general contracts, maturity structures and hedges in line with our risk management.

## CORPORATE RATING

The SOLARWORLD Group is not subject to an official rating<sup>a</sup> by Standard & Poor's, Moody's or comparable standards.

## INDIVIDUAL RISKS

### LEGEND

Risk assessment	
↑	Up on the previous year
↓	Down on the previous year
→	Flat on the previous year
×	Does not exist
Time horizon of effects	
Short term:	One to three years
Medium term:	Three to five years
Long term:	More than five years

PRELIMINARY NOTE: With regard to the risk analysis and the disclosure of counter-measures we do not distinguish between the reportable operative “Production Germany” and “Production USA” segments in our in-house production. By contrast, risk factors to be assessed differently for different regions constitute exemptions.

↓	Macroeconomic risks
Risks	<ol style="list-style-type: none"> <li><b>1. Worsening of the financial crisis and/or the recession:</b> Falling propensity to invest among private end customers; tighter financing terms and conditions for investors in large-scale solar projects</li> <li><b>2. Falling electricity prices for private households:</b> Delays in solar power reaching grid parity; slowdown in tapping new markets</li> </ol>
Probability	<ol style="list-style-type: none"> <li><b>1. Low:</b> According to economic experts the recession has already bottomed out. We therefore assess the risk of a falling propensity to invest among private end customers as low. They will continue to have access to loans for investments in solar power systems in the framework of programs to promote economic activity. <b>Medium:</b> We assess the risk of tighter financing terms and conditions for large-scale projects as medium. According to experts, the most difficult phase of the financial crisis is behind us. Nevertheless, there may be short-term credit bottlenecks for large-scale investment projects.</li> <li><b>2. Low:</b> We assess the risk as low. Falling costs of primary sources of energy are hardly ever passed on to customers. Due to a further rise in energy demand, prices are expected to tend to rise in future.</li> </ol>
Effect (strength, time horizon)	<ol style="list-style-type: none"> <li><b>1. Medium, short term:</b> A decline in demand from end customers might have a medium negative effect on our group revenues and earnings. <b>Low, short term:</b> Large-scale projects only represent a small portion (9 per cent) of our revenues. If these investments were to decline, the negative effect on SolarWorld would be minor.</li> <li><b>2. Medium, medium term:</b> In the medium term, household power prices will impact on our business since, due to the incentive system for self-consumption of solar power, the economy of solar plants will be affected by price expectations for household electricity in the medium term.</li> </ol>
Counter-measures	<ul style="list-style-type: none"> <li>• <b>Trade:</b> Our internationalization strategy helps us spread the risk of a decline in consumption between different markets. → <i>Future sales markets 2010+ • p. 141 //</i></li> <li>• <b>Production; Other:</b> Ongoing cost reductions and efficiency enhancements along the entire value chain<sup>9</sup> help us shape competitive prices. → <i>Enhancing cost efficiency • p. 142 //</i></li> </ul>

↑ Political and regulatory risks	
<b>Risks</b>	<b>Changes in laws to promote solar power:</b> Slower market growth due to a reduction in, or even abolition of, financial incentives in individual countries
<b>Probability</b>	<b>High:</b> In our sales markets, Germany and Italy, changes in the regulatory framework have been announced and will probably take effect as of mid-2010 or 2011. → <a href="#">EEG amended</a> • p. 136// → <a href="#">Growth in European markets</a> • p. 137//
<b>Effect (strength, time horizon)</b>	<b>High, short term:</b> Declines in demand due to changes in the regulatory framework in individual regions may temporarily impact our revenues and earnings. As long as grid parity <sup>2</sup> is not achieved in individual markets, SOLARWORLD will be exposed to this risk.
<b>Counter-measures</b>	<ul style="list-style-type: none"> <li>• <b>Trade:</b> Our internationalization strategy helps us spread the risk between several markets. → <a href="#">Future sales markets 2010+</a> • p. 141//</li> <li>• <b>All segments:</b> Continual cost reductions and efficiency enhancements facilitate faster achievement of grid parity and thus far-reaching independence from promotion incentives as well as long-term competitive pricing. → <a href="#">Enhancing cost efficiency</a> • p. 142//</li> </ul>

↑ Risks from tougher competition	
<b>Risks</b>	<b>Intensification of competitive pressure:</b> A tendency towards consolidation at all stages of the value chain in the industry, price competition, oversupply
<b>Probability</b>	<b>High:</b> Due to development of the solar market towards an end customers' market, competitive pressure is intensifying significantly. The fight for market shares and an ongoing expansion of supply will result in price reductions in the wafer and module segments. → <a href="#">Further rise in supply</a> • p. 135//
<b>Effect (strength, time horizon)</b>	<b>Medium, medium term:</b> Potential loss of market shares and stronger pressure on margins due to tighter price competition may have adverse effects on revenues and earnings. Due to our solid market position, we assess the probability of a significant impact of this risk on our group as medium.
<b>Counter-measures</b>	<ul style="list-style-type: none"> <li>• <b>Trade:</b> Investments in expansion of the SolarWorld brand; differentiation of our products through quality, service, innovation; customer retention programs. → <a href="#">Brand investments stepped up – demand effects for our group and our customers</a> • p. 084//</li> <li>• <b>Production:</b> Stronger expansion of production capacity in the cell and module segments in order to secure economies of scale and optimize our cost structure; → <a href="#">Facts: Worldwide production capacities</a> • p. 140// cost reduction through efficiency enhancements</li> <li>• <b>Production:</b> Utilization of existing and future wafer capacity through selling our wafers to a diversified customer base and internal processing of wafers to solar modules</li> </ul>

↓ Risks arising from alternative solar power technologies	
<b>Risks</b>	<b>Technological breakthrough of alternative solar power technologies:</b> Risk of substitution for crystalline technologies
<b>Probability</b>	<b>Medium:</b> Due to the fall in silicon prices, previous cost advantages of alternative solar power technologies versus crystalline technologies have declined. This applies mainly to the rooftop systems market. The potential for these companies to succeed is additionally impaired by the more difficult financing environment. Few of these companies have so far been able to produce on an industrial scale. These technologies might also be adversely affected by future regulation measures, disposal risks and the finite nature of the raw materials used such as cadmium, tellurium and indium. ➔ <i>Supply exceeds demand</i> • p. 073//
<b>Effect (strength, time horizon)</b>	<b>Medium, medium term:</b> A potential loss of market shares and increasing price competition with stronger pressure on margins might adversely affect our revenues and earnings.
<b>Counter-measures</b>	<ul style="list-style-type: none"> <li>• <b>Production; Other:</b> Ongoing investments in research and development in order to enhance efficiency and optimize costs</li> <li>• <b>Production; Other:</b> Regular, analytical observation of the development of alternative solar power technologies in the market. ➔ <i>Opportunity and risk management system</i> • p. 144//</li> </ul>

→ Procurement risks	
<b>Risks</b>	<ol style="list-style-type: none"> <li>1. <b>Convergence of contract and spot market prices for silicon:</b> Long-term silicon contracts less advantageous, higher procurement costs than competitors</li> <li>2. <b>Supply bottlenecks for kit components, consumables:</b> Security of supply at risk</li> </ol>
<b>Probability</b>	<ol style="list-style-type: none"> <li>1. <b>Medium:</b> With a rise in silicon supplies, the risk of market prices falling below the level agreed under long-term contracts increases.</li> <li>2. <b>Medium:</b> The solar industry is a young sector so that supply bottlenecks may occur at suppliers of industry-specific consumables and kit components, e.g. inverters<sup>9</sup> at the current point in time.</li> </ol>
<b>Effect (strength, time horizon)</b>	<ol style="list-style-type: none"> <li>1. <b>Medium, short term:</b> Unchanged procurement costs might cause margin erosion if wafer and module prices should fall; they might thus have an adverse effect on our earnings. As a major silicon customer, we have good long-term relationships with our suppliers, giving us flexibility in renegotiations. We assess the effect of this risk on our business as medium. ➔ <i>Procurement</i> • p. 079//</li> <li>2. <b>Medium, short term:</b> Bottlenecks in supplies of kit components and consumables may adversely affect our cost structure, slow down production processes, and thus reduce our earnings.</li> </ol>
<b>Counter-measures</b>	<ul style="list-style-type: none"> <li>• <b>Production; Trade:</b> Expansion of our supplier networks and maintenance of our good, long-term supplier relationships ➔ <i>Future procurement</i> • p. 143//</li> <li>• <b>Production; Trade:</b> International procurement management and supplier diversification increases independence from regional bottlenecks.</li> <li>• <b>Production; Trade:</b> Use of alternative products reduces dependence on individual suppliers.</li> <li>• <b>Other; Production:</b> Continuous reduction of silicon requirements per watt-peak</li> </ul>

↑ Default risks	
Risks	<b>Insolvency of individual customers:</b> Loss of receivables outstanding
Probability	<b>High:</b> Due to rising consolidation tendencies in the market, the risk of wafer and trading costumers' insolvency is increasing. We assess this risk as high for us.
Effect (strength, time horizon)	<b>Medium, short term:</b> Contractual defaults and non-performance of payment obligations might have a negative effect on earnings and our order book.
Counter-measures	<ul style="list-style-type: none"> <li>• <b>Production; Trade:</b> Ongoing monitoring and analysis of receivables and selective conclusion of credit insurance.</li> <li>• <b>Production; Trade:</b> Cash in advance and/or down payment arrangements.</li> </ul>

↑ Sales and price risks	
Risks	<ol style="list-style-type: none"> <li>1. <b>Stronger price pressure and increased supply:</b> Falling demand for our products</li> <li>2. <b>Purchase of less than agreed volume:</b> Non-performance of long-term wafer contracts</li> </ol>
Probability	<ol style="list-style-type: none"> <li>1. <b>Medium:</b> Due to growing internationalization, tougher competition and changes in the legal framework in the core market Germany, price and cost pressure might emerge in the market. Shifts in demand might increasingly be observed among customers basing their purchasing decision exclusively on price. ↻ <i>The future solar power market</i> p. 135//</li> <li>2. <b>High:</b> Due to the dropped market prices and the increased supply of wafers, it is to be assumed that not all wafer customers will meet their contractual purchasing obligations in 2010 or demand re-negotiations.</li> </ol>
Effect (strength, time horizon)	<b>Medium, short term:</b> None of our customers for wafers or modules accounts for more than ten per cent of our revenues. Sales and contractual defaults might have a negative effect on our earnings and order book. They can also lead to inventories being built up. If long-term contracts were to be cancelled, downpayments already made by customers would be retained.
Counter-measures	<ul style="list-style-type: none"> <li>• <b>Production:</b> Flexibility through vertical integration. Building of capacities in order to be able to process not delivered wafer volumes into brand modules in our in-house value chain.</li> <li>• <b>Trade:</b> Further expansion of our brand and positioning as a quality supplier as customer retention measures. Risk diversification to considerably more than 100 international systems integrators, specialized wholesalers and installers as customers.</li> </ul>

→ Corporate strategy risks	
<b>Risks</b>	<b>Misjudgments concerning future developments:</b> Wrong investment and technology decisions, lack of market acceptance for newly developed products.
<b>Probability</b>	<b>Low:</b> Thanks to our long-standing market experience and the conclusion of important partnerships and strategic alliances, we assess the probability of this risk as low.
<b>Effect (strength, time horizon)</b>	<b>High, long term:</b> Losses of market shares, image, and capital due to wrong strategic decisions might adversely affect the economic situation of our group. Lack of acceptance of new products might have a negative effect on revenues and earnings.
<b>Counter-measures</b>	<ul style="list-style-type: none"> <li>• <b>All segments:</b> Identifying market trends by means of market analyses in all business segments and long-term relationships with customers, suppliers and political decision-makers. → <i>Opportunity and risk management system</i> • p. 114//</li> <li>• <b>Production; Other:</b> Concluding strategic alliances and joint ventures to split up the investment risk.</li> <li>• <b>Other:</b> Performing broadly based research and development activities and cooperation schemes with universities and research centers. → <i>Innovation report 2009</i> • p. 090//</li> </ul>

→ Human resources risks*	
<b>Risks</b>	<b>Shortage of highly qualified technical staff and executives:</b> Difficulties in filling key positions.
<b>Probability</b>	<b>Low:</b> Due to our reputation as an attractive employer and increasing personnel marketing, we assess this risk as low for us. Moreover, interest in solar companies has risen in the labor market due to the growth of the solar industry.
<b>Effect (strength, time horizon)</b>	<b>Medium, medium term:</b> Potential reduction in our technological edge and corporate growth due to shortage of skilled technical staff may adversely affect our revenues and earnings.
<b>Counter-measures</b>	<ul style="list-style-type: none"> <li>• <b>All segments:</b> Selective, needs-oriented development of skills of our existing staff</li> <li>• <b>All segments:</b> Strengthening our image as an attractive employer, university marketing, research cooperation schemes. → <i>Human resources – future development</i> • p. 144//</li> <li>• <b>All segments:</b> Promoting employee motivation through strong leadership and corporate culture, working hour schemes and profit-oriented variable remuneration schemes</li> <li>• <b>All segments:</b> Defining deputies and powers within the framework of our quality management system</li> </ul>

\* We also refer to the social performance indicators recorded in the integrated Sustainability Report, which indicates further risks from the perspective of “employees” as a stakeholder group. → *Report on sustainable corporate management/Social performance indicators* • p. 242//

→ IT risks	
<b>Risks</b>	<b>Disturbances in the operation of IT systems and networks:</b> Data security risks and interruption of work at our sites worldwide
<b>Probability</b>	<b>Medium:</b> Our IT systems comply with state-of-the-art safety standards and undergo regular maintenance.
<b>Effect (strength, time horizon)</b>	<b>Medium, long term:</b> Productivity losses due to interruption of production and workflows might have a negative impact on our productivity.
<b>Counter-measures</b>	<ul style="list-style-type: none"> <li>• <b>All segments:</b> Regular investments in updates and soft- and in hardware systems; up-to-date virus scanners and firewalls reduce the risk of virus and hacker attacks; certified systems to enhance safety and reliability</li> <li>• <b>All segments:</b> Separation of IT systems from production and administration in order to minimize potential failure risks</li> <li>• <b>All segments:</b> Regular multiple daily backup of data</li> </ul>

→ Liquidity risks	
<b>Risks</b>	<ol style="list-style-type: none"> <li>1. <b>Credit crunch:</b> More difficult access to credit markets; rise in financing costs due to widening of interest spreads and shorter maturities in lending</li> <li>2. <b>Failure to reach financial indicators:</b> Termination of borrowed funds</li> </ol>
<b>Probability</b>	<ol style="list-style-type: none"> <li>1. <b>Low:</b> Due to our long-term credit agreements and our strong liquidity, we assess the short-term risk as low for us. Should the situation in the credit business not improve over the medium to long term, we would have to accept a widening of spreads<sup>9</sup> in future financing measures.</li> <li>2. <b>Low:</b> In the fiscal year the financial indicators were regularly exceeded substantially.</li> </ol>
<b>Effect (strength, time horizon)</b>	<ol style="list-style-type: none"> <li>1. <b>Medium, medium term:</b> Tougher lending commitments would have a medium negative impact on the funding options for our expansion plans.</li> <li>2. <b>Medium, medium term:</b> Premature refinancing needs with potentially poorer conditions.</li> </ol>
<b>Counter-measures</b>	<ul style="list-style-type: none"> <li>• <b>All segments:</b> Diversification and expansion of the capital base of our group by means of capital measures concluded in previous years. In 2009 a syndicated loan was additionally taken out → <i>Liquidity analysis</i> • p. 102// In early 2010 we placed a bond worth € 400 million on the capital market. → <i>Estimated development of liquidity</i> • p. 146//</li> <li>• → <i>Notes/Liquidity risks</i> • p. 199//</li> </ul>



↑ Other financial risks	
<b>Risks</b>	<b>Currency, interest rate and price risks</b>
<b>Probability</b>	<b>Medium to high:</b> Due to the procurement of raw materials, in particular in US dollars, and the sale of US products in other currency regions, we are exposed to currency risks. As a global player we are also exposed to interest rate and price risks.
<b>Effect (strength, time horizon)</b>	<b>Medium, long term:</b> Impact on the financial results of our business operations. Thanks to the pro-active, regular, careful review of our financial instruments, we assess these risks as controllable.
<b>Counter-measures</b>	<ul style="list-style-type: none"> <li>• <b>All segments:</b> Specific use of derivative and non-derivative financial instruments</li> <li>• → <a href="#">Notes/ Financial instruments</a> • p. 196//</li> </ul>

→ Legal risks	
<b>Risks</b>	<b>Legal risks:</b> A wide range of tax, competition, patent, anti-trust, copyright and environmental provisions in the framework of our international business operations
<b>Probability</b>	<b>Low:</b> SolarWorld is currently not aware of any risks from litigation, patent infringement or other legal risks that might significantly impact the business situation of our company.
<b>Effect (strength, time horizon)</b>	<b>Medium, long term:</b> Litigation might have an impact on earnings from business operations since it would tie up financial resources and might jeopardize our reputation.
<b>Counter-measures</b>	<ul style="list-style-type: none"> <li>• <b>All segments:</b> integrated legal advice from external legal experts</li> </ul>

→ Warranty, liability and other risks*	
<b>Risks</b>	<ol style="list-style-type: none"> <li><b>Warranty risks:</b> Granting a warranty of 25 years for solar modules which we sell. Since 1 January 2010, this has been a linear performance warranty.</li> <li><b>Other customary liability risks</b></li> </ol>
<b>Probability</b>	<ol style="list-style-type: none"> <li><b>Low:</b> Due to the careful review of our process and product quality, we assess the risk of claims being made against our product warranty as low.</li> <li><b>Low:</b> Thanks to pro-active regular controls concerning protection against hazards and health and safety protection at our sites, we assess the probability of these risks as low.</li> </ol>
<b>Effect (strength, time horizon)</b>	<ol style="list-style-type: none"> <li><b>Medium, long term:</b> Potential negative impacts on our net assets, financial position and results of operations in the event of warranty</li> <li><b>Medium, long term:</b> Production loss, loss of assets, potential claims for damages</li> </ol>
<b>Counter-measures</b>	<ul style="list-style-type: none"> <li><b>All segments:</b> Risk provisioning in our balance sheet for our warranty commitment through the formation of a provision.<sup>9</sup> → <a href="#">Notes/Non-current and current provisions</a> • p. 192 //</li> <li><b>All segments:</b> Securing other risks via comprehensive insurance cover based on customary market concepts; regular review of the extent of insurance cover for our risks based on site inspection.</li> </ul>

\* We also refer to the performance indicators recorded in the integrated Sustainability Report, which indicate further risks from the perspective of SolarWorld's stakeholders. ☉ [Report on sustainable corporate management/Performance indicators](#) • p. 242 //

## OVERALL STATEMENT BY THE MANAGEMENT BOARD ON THE RISK SITUATION OF OUR GROUP

According to our assessment, the risks described above are controllable and do not jeopardize the continued existence of the SOLARWORLD Group at the time of reporting. This applies both to the individual companies and the group. The overall risk situation resulting from the individual risks presented above has changed year-on-year, in particular due to tighter competition and potential changes in the regulatory framework. In connection with the individual risks mentioned and based on the assumption that the market will remain stable, no negative deviations of the developments outlined in the Forecast Report will occur. From today's perspective we do not expect any major changes in the risk situation.

x	Risks endangering the continued existence of the company
<b>Risks</b>	Risks threatening the SOLARWORLD Group's continued existence as a going company
<b>Probability</b>	From the management perspective, there are no specific trends apparent that might have an essential and sustained negative impact on the SolarWorld Group's net assets, financial position and results of operations.
<b>Effect</b>	Negative effect on the results from our business operations, risks endangering the going company assumption
<b>Counter-measures</b>	<ul style="list-style-type: none"> <li>• Our opportunity and risk management system observes external and internal developments in order to be able to act in good time</li> <li>• At present there are no risks apparent which would endanger the SolarWorld Group's continued existence as a going company</li> </ul>

## OPPORTUNITIES

### OPPORTUNITIES FROM THE DEVELOPMENT OF GENERAL CONDITIONS

**FURTHER RISE IN ENERGY DEMAND.** The steady increase in the demand for energy is one of the megatrends that will codetermine the development of the global economy over the short, medium and long term. This trend is influenced and reinforced by global population growth and the steadily rising demand of developing countries and emerging economies for a share in wealth and social well-being.

According to the reference scenario of the World Energy Outlook 2009 of the International Energy Agency (IEA), global demand for power will rise by 66 per cent to 28,930 TWh over the next 20 years. Non-OECD countries will account for over 80 per cent of this growth. <sup>50</sup> *Worldwide electricity consumption* • p. 131//

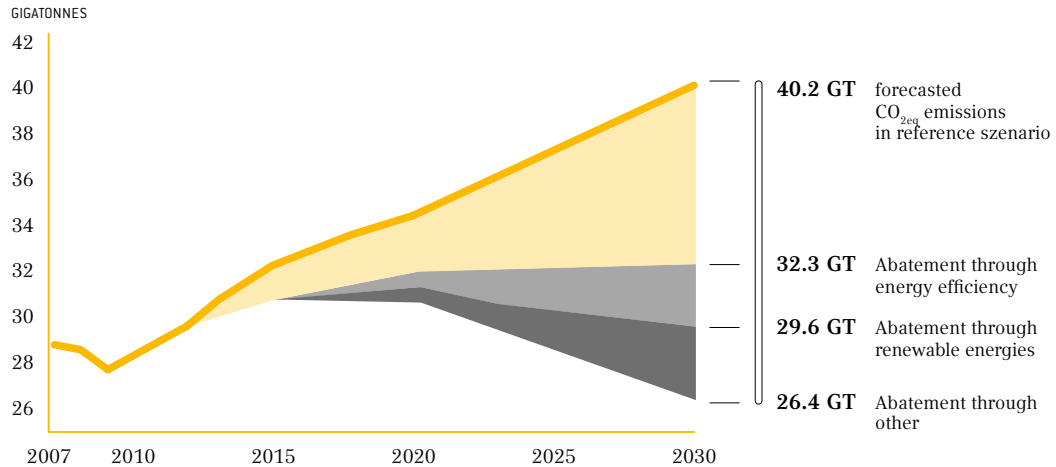
**RENEWABLE ENERGIES GAIN IMPORTANCE.** A crucial concern for the future will not only be to cover the demand for energy – it will also have to be climate-friendly. Renewable energies<sup>9</sup>, including solar energy, are increasingly moving to the fore in this regard. Climate change poses one of the key challenges of the 21st century. Its adverse impact will not only have ecological but also economic effects and place a major strain on the global economy in future. That is why demand for low-carbon technologies is increasing, driven on the one hand by national and international political promotion measures and on the other also by rising public awareness of the repercussions of climate change. More than 40 per cent of energy-related greenhouse gas emissions<sup>9</sup> are currently caused by the electricity sector. Power production is thus the main cause of greenhouse gas emissions, even ahead of transportation (23 per cent) and industry (17 per cent). Accordingly, it entails the largest savings potential. According to the European Photovoltaic Industry Association (EPIA)<sup>9</sup> solar power will make a major contribution to this. <sup>52</sup> *CO<sub>2</sub> savings through solar power 2030* • p. 131//

According to the IEA, renewable energies may over all account for around 20 per cent of the total energy-related savings potential by 2030. In order to achieve this goal, investments of more than US\$ 520 billion will be required within the next ten years.



④⑦ WORLDWIDE ENERGY-RELATED GREEN HOUSE GASES EMISSIONS ABATEMENT

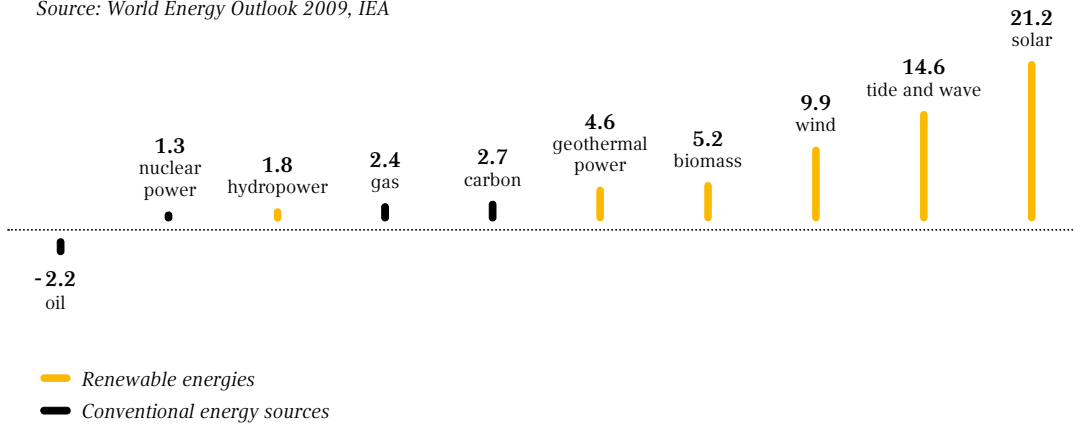
Source: World Energy Outlook, 2009



④⑧ AVERAGE ANNUAL GROWTH RATES BY ENERGY SOURCES FOR POWER GENERATION BY 2030

// IN PER CENT

Source: World Energy Outlook 2009, IEA



According to the EPIA forecast, it will be possible to produce more than 1,291 TWh of electricity worldwide from solar energy in 2030. ④⑨ *Solar power development forecast until 2030* • p. 131// By way of comparison, the current electricity requirement in the entire European Union is approximately 1,700 TWh. The average annual growth rate for solar power will be 21.2 per cent by 2030, according to the IEA reference scenario. Solar power is thus the fastest growing source of energy.

The trend towards renewable energies is also driven by the growing scarcity of fossil fuels and the resulting price increases for conventionally produced power. At the same time, the price of solar power products will continue to fall due to advancing technological optimization, lower cost of materials, economies of scale and learning curve effects. Experts presume that grid parity will be achieved in almost all solar core markets within the next five years. As a result, solar energy will develop into an economic alternative to conventional sources of energy not requiring incentives.

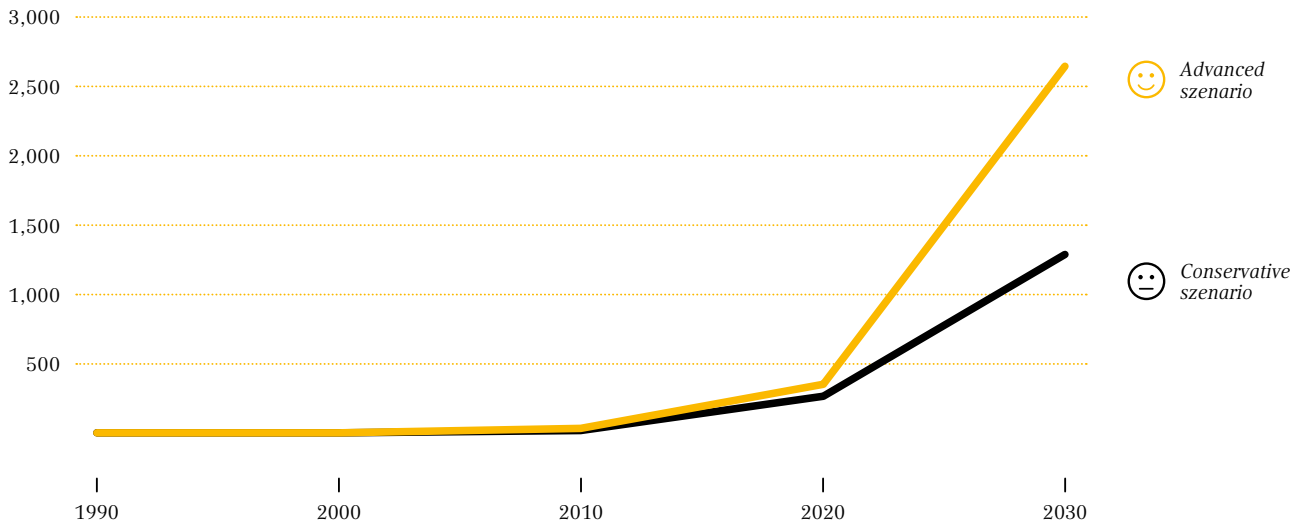
As a fully integrated<sup>9</sup> solar technology supplier, SOLARWORLD AG consistently uses opportunities arising in the solar energy growth market. The worldwide rise in demand for solar power products is expected to benefit our revenues and earnings in numerous markets. ➔ *Estimated development of revenue and result* • p. 145//

**OFF-GRID TECHNOLOGY TAPS NEW MARKETS.** Our sound position in the off-grid<sup>9</sup> applications segment also offers us many opportunities in this future market. According to estimates by IEA 🌐 *World map*// around 1.5 billion people worldwide do not have access to electricity. Solar power technology offers even off-grid regions an uncomplicated and low-maintenance solution for decentralized power production – without requiring the cost- and time-intensive establishment of a grid. EPIA presumes that up to 3 billion people will use this type of power supply by 2030. 📄 *Solar power users worldwide 2030* • p. 131// SOLARWORLD AG not only produces the appropriate technology for these applications, we also have many years of experience with projects in this field and have a presence in the largest off-grid markets with our sales branches in Asia, Africa, and America. We have thus secured a major competitive edge in these hitherto underdeveloped regions, which represent important regions for the future.



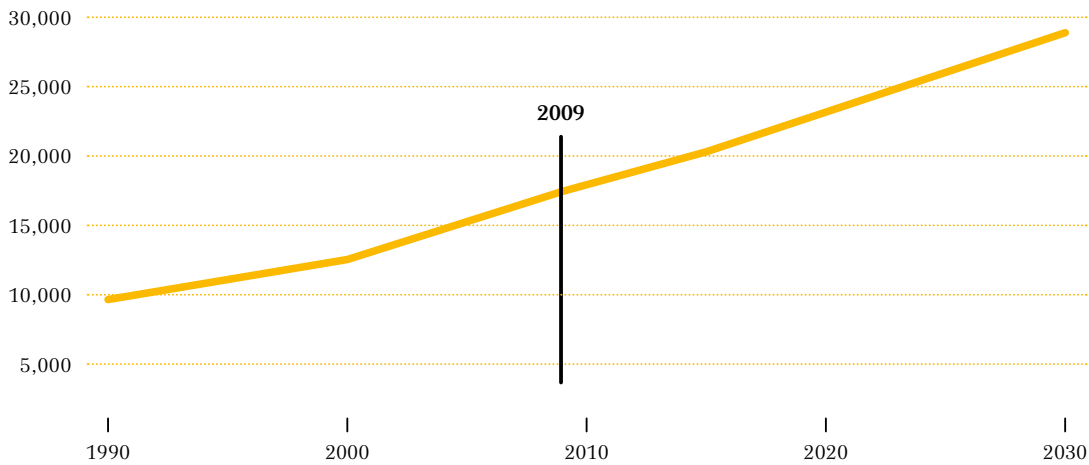
49 SOLAR POWER DEVELOPMENT FORECAST UNTIL 2030 // IN TWH

Source: EPIA Solar Generation V



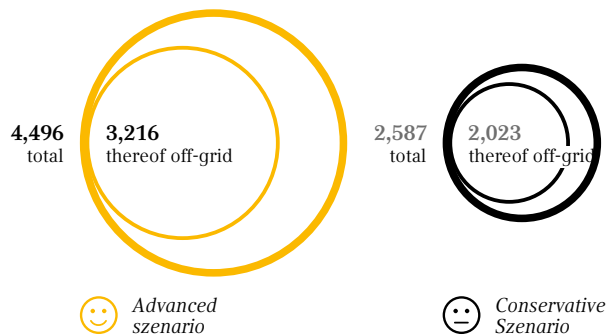
50 WORLDWIDE ELECTRICITY CONSUMPTION // IN TWH

Source: World Energy Outlook 2009, IEA



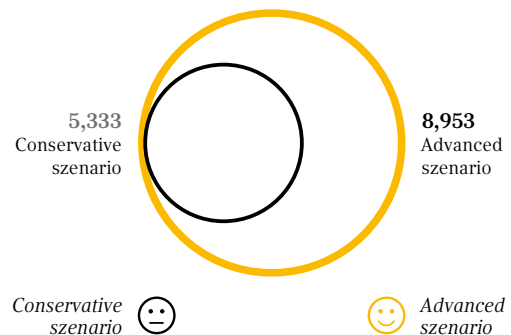
51 SOLAR POWER USERS WORLDWIDE 2030 // IN MILLION PEOPLE

Source: EPIA Solar Generation V




52 CO<sub>2</sub> EMISSIONS SAVINGS THROUGH SOLAR POWER 2030 // IN MTCO<sub>2</sub>



Source: EPIA Solar Generation V





## STRATEGIC OPPORTUNITIES

**LOCATION-RELATED STRATEGY PAYS OFF.** For many years we have operated production sites in the key solar markets Europe, USA, and Asia. We therefore not only benefit from good locations  [World map](#), but are also able to respond to rapidly changing regional conditions in a particularly flexible manner and optimize our logistics costs. With the planned capacity expansion at our sites, we are well positioned to take advantage of the enormous growth potential in these markets. At the same time we can benefit from the political framework in these countries and the willingness of the respective governments to support renewable energies<sup>9</sup> by various means, including financial support. In the framework of the American Recovery and Reinvestment Act 2010, the US administration, for instance, decided to offer tax grants worth US\$ 2.3 billion for companies and their projects in the field of renewable energies, to be realized in the USA as of 2010. For our US subsidiary SOLARWORLD INDUSTRIES AMERICA INC. tax grants of US\$ 82.2 million have been reserved.

We also expect additional corporate strategy opportunities to arise from the establishment of our new US subsidiary, SOLARWORLD POWER PROJECTS INC. This company will be in charge of the design and implementation of large-scale projects in the US market where these projects will play a major role in future.

**SELF-CONSUMPTION OF SOLAR POWER GAINS IMPORTANCE.** The amendment to the German Renewable Energy Sources Act (EEG)  [EEG amended](#) • p. 136// provides for privileges applying to solar power consumed by plant operators themselves. That is why we are planning to introduce complete solutions, including battery systems, suitable for self-consumption of solar power by the respective households.  [Future products and services](#) • p. 142// We should benefit from the changes to the general legal framework in the German solar market applicable as of July 2010.

## ECONOMIC PERFORMANCE OPPORTUNITIES

**FURTHER COST REDUCTIONS.** According to experts, silicon prices will remain at a low level or even continue to fall.  [The future solar power market](#) • p. 135// For SOLARWORLD as a producer of silicon-based solar power products, this creates opportunities to further cut production costs. Internally, too, we constantly strive to optimize our production processes. Examples include a new design for an aluminium frame for our modules, which enables us to reduce our aluminium demand as of 2010 while increasing frame stability and thus module quality.  [Innovation targets and priorities](#) • p. 092//

**IMPROVING THE EFFICIENCY OF LOGISTICS.** Enhancing the efficiency of our distribution channels also creates opportunities for the group. At our German production site in Freiberg, we changed our warehouse operations to a four-shift scheme and thus reduced our delivery times in the year under review. As a result, we are able to place the growing shipments of our products swiftly on the markets in line with requirements. In the course of 2010 we intend to further optimize our delivery processes and thus achieve faster product throughput and hence higher sales.





**RECYCLING GAINS IMPORTANCE.** Additional economic performance opportunities for SOLARWORLD result from expansion of our recycling capacity. Around 21 per cent of the silicon used in the “Production Germany” segment is already generated internally. This strengthens our raw materials basis and reduces costs.

We also actively assume our recycling<sup>s</sup> responsibility as a manufacturer of solar power products and thus avoid expensive legally stipulated solutions. As one of the co-initiators of the industry consortium PV CYCLE [\[1\] www.pvcycle.org//](http://www.pvcycle.org/) SOLARWORLD promotes a voluntary European recycling program. To date, a collection system for solar manufacturers has not yet been mandatory, neither under the German Act on Electrical Equipment nor under EU regulations (WEEE Directive<sup>s</sup>: Waste Electrical and Electronic Equipment; RoHS Directive<sup>s</sup>: Restriction of Hazardous Substances). However, pressure to introduce a binding system is increasing. In Germany, the installation of free-field systems will only be permitted as of 2010 if a system for the collection of end-of-life products, like for instance in SOLARWORLD, is operated. In order to qualify for a loan granted by the German Reconstruction Loan Corporation (KfW), a collection system will probably be a binding prerequisite for crystalline modules, too, as of the end of 2010.

This development offers enormous opportunity for SOLARWORLD as one of the leading suppliers of recycling services. A competitive edge results from the broad portfolio of activities offered. We offer our recycling services for by-products of solar and semiconductor production and processing, from wafer and cell rupture material through to all commercial crystalline solar modules.

## OTHER OPPORTUNITIES

We refer to our integrated sustainability report which lists additional opportunities from the perspective of our stakeholders<sup>s</sup> – “employees”, “customers” and “suppliers”. ☉ [\*Report on sustainable corporate management\*](#) • p. 211//



## MARKET 2010+

### FUTURE ECONOMIC ENVIRONMENT

**GROWTH EXPECTED.** According to Euroframe, the recession has already bottomed out and the global economy will recover again as of 2010. However, the situation has not yet stabilized and the recovery might be curbed again if new, unexpected economic developments were to occur. On the whole, however, economic experts expect the world trade volume to grow by 7.5 per cent in 2010 and 8.4 per cent in 2011, so that the global Gross Domestic Product (GDP)<sup>9</sup> is expected to grow again. According to the Euroframe forecast for 2010, GDP will grow by 2.9 (2009: -1.0) per cent. In 2011, growth is expected to be even stronger at 3.8 per cent.

In our production and sales regions, Euroframe expects the economic performance to recover as of 2010, a trend expected to continue in 2011. The anticipated economic performance is expected to benefit demand and the propensity to invest in the solar sector.

#### ⑤③ GROSS DOMESTIC PRODUCT // YEAR-ON-YEAR CHANGE IN PER CENT

Source: Euroframe, 2009; IfW, 2010

Country/region	2009	2010	2011
World	-1.0	2.9	3.8
EU-27	-4.1	1.0	2.2
Germany	-4.9	1.3	1.8
USA	-2.6	2.1	2.8
South Korea	-0.1	4.4	3.8

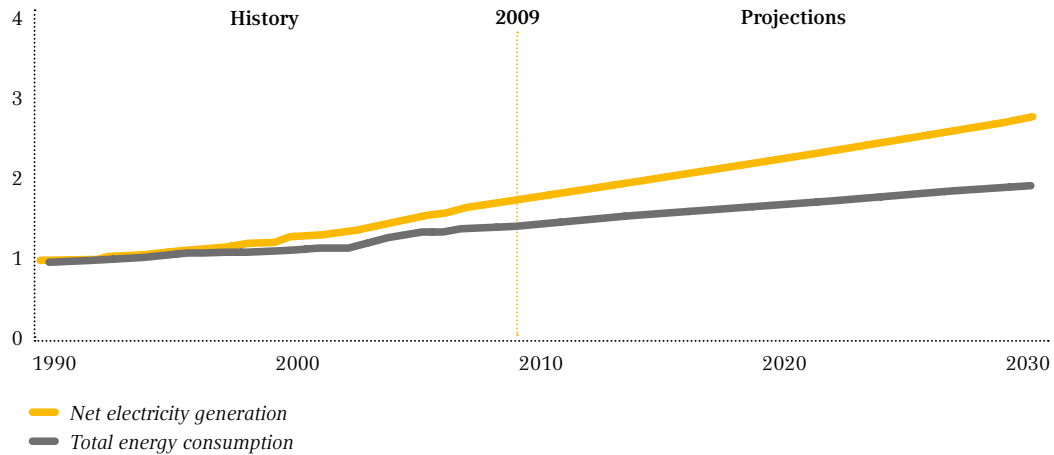
### THE FUTURE WORLD ELECTRICITY MARKET

**RENEWABLE ENERGIES GAIN MARKET SHARES.** With the anticipated recovery of economic activity, the demand for energy is expected to continue to rise worldwide. The Energy Information Administration (EIA) expects the demand for oil to grow by 1.1 million barrels/day to 85.2 million barrels/day in 2010. It also presumes that the average monthly price for oil (WTI) will rise by nine per cent to 82 (December 2009: 76) US\$/barrel by December 2010. Bottlenecks in refinery capacities, reductions in oil production volumes by the OPEC and the scarcity of oil supplies might again trigger strong price volatility.

According to experts, the demand for electricity will grow further in 2010. The EIA expects worldwide electricity consumption to grow by 2.4 per cent to 20.6 billion TWh. According to the EIA, the growth of the electricity market will outperform all other energy sectors in future. Renewable energies will increasingly be used in power production in the next few years (growth rates p.a.: 2.9 per cent), growing more

#### 54 GROWTH OF ENERGY CONSUMPTION AND ELECTRIC POWER GENERATION IN A COMPARISON

Source: Energy Information Administration, 2009



strongly than other energy sources (gas: 2.7 per cent, coal: 2.5 per cent, nuclear power: 1.5 per cent). Renewable energies<sup>9</sup> will thus gain additional market shares in the international energy mix.

### THE FUTURE SOLAR POWER MARKET

**MARKET GROWTH FORECAST.** Although the structural change of the solar market has not yet ended, the general conditions in the forthcoming years are expected to improve again. Bank Sarasin analysts expect newly installed solar power capacity in the international solar market to grow by 46 per cent to 8.4 (2009: 5.8) GW. In 2011 the market is expected to grow further with an anticipated newly installed solar power capacity of 12.7 GW. The European Photovoltaic Industry Association (EPIA)<sup>9</sup> forecasts newly installed solar power capacity of 6.0 to 10.8 GW for 2010. For 2011 the forecast growth corridor ranges from 7.5 to 17.4 GW.

**FURTHER RISE IN SUPPLY.** Increasing competition in the silicon market and the expansion of production capacity to 68,000 (2009: 67,000) tonnes in 2010 and 98,000 tonnes in the subsequent year are expected to create a further decline in silicon prices. The Sarasin Bank expects the average price to fall to 45 (2009: 55) US\$/kg in 2010 and 40 US\$/kg in 2011. This will help manufacturers of crystalline solar power technology – such as SOLARWORLD – to further cut their production costs so that it will be easier for them to compensate for potential price reductions in modules.

Solar manufacturers can tap additional cost savings potential through efficiency enhancements in wafer and cell production. As a result, average silicon demand is to be reduced by five per cent to 7.8 (2009: 8.2) g/Wp as early as in 2010 and to 7.6 g/Wp in 2011.

In the next two years, global production capacity for wafers, cells and modules will continue to rise. Asian competitors, in particular, have announced ambitious expansion schemes. The Sarasin Bank therefore anticipates growth in crystalline cell production of 53 per cent to 12.5 (2009: 8.1) GW in 2010 and a further 21 per cent to 15.2 GW in 2011. Manufacturers of alternative solar technologies such as thin film will also expand their production capacity, although many research projects carried out in this area will probably not result in marketable products due to the more difficult funding environment. Moreover, potential cost benefits of these manufacturers will be less relevant due to the fall in crystalline cell and module prices. By contrast, more mature technologies such as module production based on cadmium/telluride will probably gain market shares. However, this technology which uses highly poisonous substances might fall under future regulation provisions. The use of cadmium is already governed and has been limited by the EU Chemicals Regulation.

The rise in supply will probably cause further price reductions, a key step on the way to achieving grid parity<sup>9</sup>. Once parity will have been achieved, completely new markets will open up for the solar sector, regardless of incentive schemes. In the long term, the sector will therefore benefit from falling prices. Consolidation tendencies in the market provide established companies such as SOLARWORLD with an opportunity to gain additional market shares and strengthen its position as a quality supplier.

**EEG AMENDED.** Despite the planned amendment to the German Renewable Energy Sources Act (EEG), experts predict that Germany will remain the world's largest solar market in 2010. EPIA expects newly installed capacity of up to 2.8 (2009: 3.0) GW. As the growth corridor of 1.5 GW defined by the EEG was exceeded in 2009, the feed-in tariffs for solar power will decline by nine or eleven per cent, respectively, as of 2010, depending on plant type and size.

Due to strong market growth in 2009, a further decline in feed-in tariffs<sup>9</sup> for solar power plants is also being discussed. With effect from 1 July 2010, the feed-in tariff for rooftop systems should be reduced by 16 per cent on a one-off basis while feed-in tariffs for free-field plants are expected to sink by 15 per cent. Free-field systems on arable land should not receive any further incentives according to the current status of discussion.

These additional declines – which should be significantly higher than originally discussed – create enormous challenges for the solar sector. As Germany currently is by far the largest solar market, the amendment is likely to further reinforce the consolidation pressure within the entire solar sector.



In order to nevertheless guarantee growth in the solar market in Germany over the long term, growth corridors are again to be stipulated in the most recent amendment to the EEG. These corridors allow for an adjustment of the tariffs to the market situation. Accordingly, the basic feed-in tariff decline of 9 per cent will enter into force at annual growth of 2,500 to 3,500 MW. If newly installed capacity exceeds this corridor, the feed-in tariff decline will rise in 1,000 MW stages: in 2011 by 2 percentage points and in the following years by 3 percentage points respectively. If, by contrast, market growth falls short of the 2,500 MW line, the basic feed-in tariff decline will be reduced in 500 MW stages by 2.5 percentage points each time.

The feed-in tariff for solar power used for self-consumption is planned to be made more attractive through amended EEG. The existing limitation of self-consumption to systems of less than 30 kW will be lifted to 800 kW. This will benefit the regulation of power grids and balance power consumption. As a result, the German solar market will remain attractive, above all in the private rooftop area. EuPD Research expects rooftop systems on private and non-private buildings to account for around 91 per cent of the entire German solar market by 2012 (2009: 86 per cent). By contrast, the share of free-field systems will fall to nine per cent (2009: 14 per cent).

**INCENTIVE PROGRAMS TAKE EFFECT.** For the USA, analysts expect stronger growth in demand in 2010. One of the key drivers of this development will be the national Cash Grant Program adopted in the course of the third quarter of 2009, under which solar customers can get 30 per cent of the cost of new solar power installations reimbursed in the form of a grant. Market experts believe that the US solar market will exceed the 1,000 MW threshold of newly installed output in 2010. Barclays Capital forecasts newly installed capacity of 1,076 (2009: 468) MW for 2010 and even 2,945 MW for 2011. Unlike in Germany, the USA are expected to experience strong growth, in particular, in the market for free field systems. This is due to the fact that many US utilities are interested in increasing their share of solar power due to the introduction of statutory minimum shares of renewable energies<sup>9</sup> in the energy mix. Since these companies may also benefit from the tax credits of 30 per cent of the Cash Grant Program, building large-scale plants is particularly attractive to them.

**GROWTH IN EUROPEAN MARKETS.** The remaining European markets are also expected to show positive development. According to experts, Italy is mainly expected to show a dynamic trend in the next two years. In 2010 newly installed solar capacity is expected to be 924 (2009: 374) MW. In 2011 the Italian solar market is expected to growth to a newly installed output of 1,478 MW. Italy is expected to achieve accumulated solar capacity of 1,200 MW as early as in 2010 so that the feed-in tariff for solar power would have to be amended again in accordance with the Italian Energy Act "Conto Energia II". The new tariffs would then enter into force as of January 2011. Although no official announcements concerning the new tariffs have been made, the Italian Solar Industry Association has already presented the draft of a new tariff scheme to the government. It provides for stronger reductions for free-field systems compared to roof-mounted systems so that the breakdown of newly installed capacity in Italy might change to the benefit of the rooftop segment.

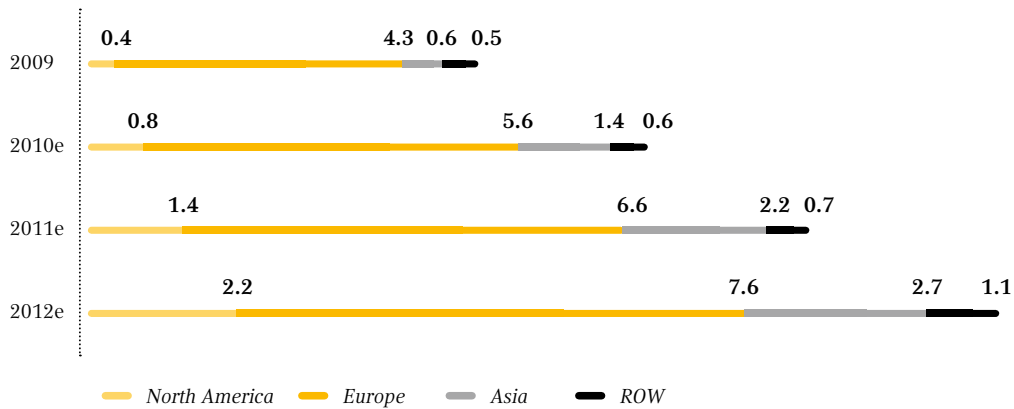
---

Having overcome the recession, the solar markets in France, the Czech Republic and Belgium are expected to continue to grow in 2010. The Sarasin Bank expects the European markets (excluding Germany and Italy) to achieve overall growth of 33 per cent to 1,190 (2009: 896) MW in 2010. For 2011, these European markets are expected to continue to grow and achieve newly installed capacity of 1,707 MW.

**GROWTH IN ASIA BENEFITS THE GLOBAL COMPETITIVE SITUATION.** The key growth driver in Asia will be Japan. According to expert forecasts, the Japanese solar market will grow by 50 per cent to 547 (2009: 365) MW in 2010, with newly installed capacity of 739 MW in 2011. According to Bank Sarasin, China and India will develop as key sales regions, too. As a result, the competitive situation in Europe and the USA will be alleviated to some extent since Chinese manufacturers will probably increasingly seek to sell their products primarily in these countries due to their logistic proximity to these markets. Taken together, the two markets are expected to more than double in 2010 and reach a newly installed solar capacity of 557 (2009: 245) MW. On the whole, the Asian market is expected to achieve newly installed capacity of 1,560 (2009: 896) MW in 2010. For 2011, the market volume is expected to grow to 2,475 MW.

55 **EXPECTED DEVELOPMENT OF THE SOLAR MARKET BY REGIONS // IN GW**

Source: Deutsche Bank, 2010



## DEVELOPMENT OF BUSINESS 2010+

### FUTURE ORIENTATION OF THE GROUP

#### PLANNED CHANGES IN BUSINESS POLICY IN THE FORTHCOMING TWO FISCAL YEARS

The group will continue its successful strategy as a fully integrated<sup>9</sup> global solar technology group.

➔ [Strategy and action](#) • p. 033//

We will increase our production capacity all the way from wafers via cells through to modules in 2010 with a view to expanding our market position. Group-wide module capacity, in particular, will be substantially increased to 1.25 GW. This is our strategic response to growing end customer markets. From today's perspective we will grow organically. Our location policy will focus on existing production sites in Germany and USA. This will reduce our group's complexity costs and help us benefit from favorable market factors. ➔ [Corporate strategy opportunities](#) • p. 132// As with our joint venture in South Korea, we are evaluating opportunities to expand our strategic alliances with local partners.

We are continually working to optimize our processes in order to achieve additional cost savings and further enhance the quality of our products. We will also continue our brand investments.

We are constantly probing new markets as we are planning to increase the relative share of our group-wide foreign operations considerably.

Should corresponding opportunities arise, we will examine new strategic business areas in order to drive forward our vision of clean, infinite, and fair energy supplies for the future.

#### FUTURE LEGAL GROUP STRUCTURE

As per 11 February 2010 we sold 26.5 per cent of our shares in our South Korean joint venture SOLARWORLD KOREA LTD. As per 1 March 2010 we announced that we had acquired a 29 per cent stake in the newly founded joint venture Qatar Solar Technologies. ➔ [Group structure modified](#) • p. 112//

In the course of 2010, we will convert our liaison office in Grenoble, France, established in the third quarter of 2009 ➔ [Change in legal group structure](#) • p. 048// into a wholly-owned subsidiary.

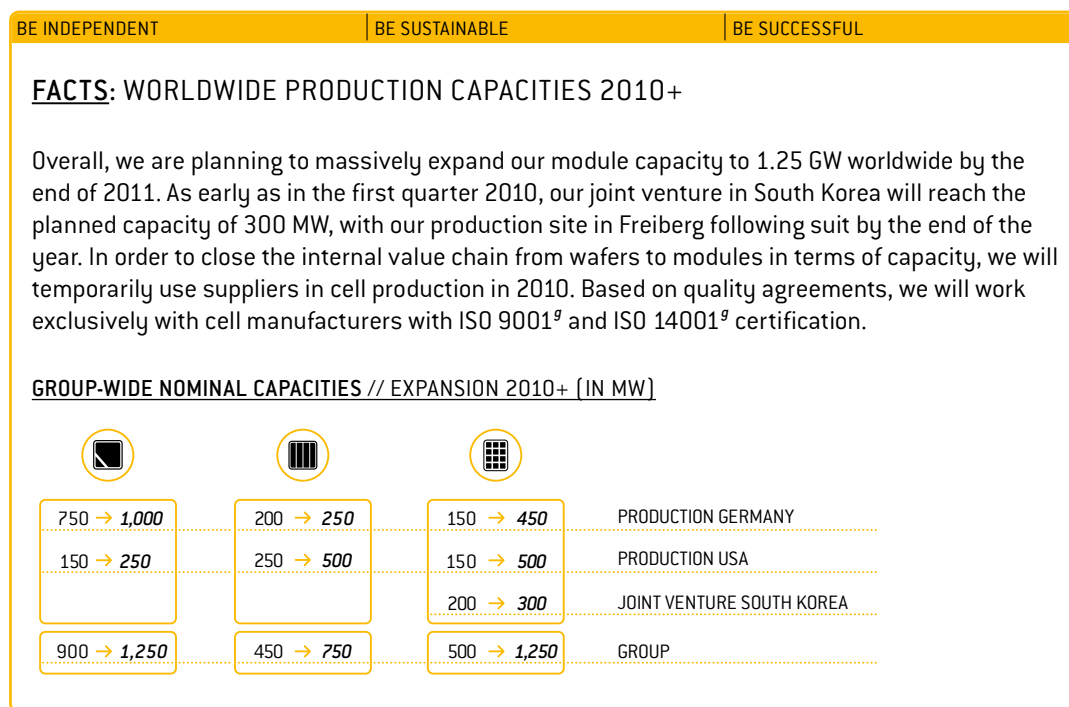


## FUTURE DEVELOPMENT OF “PRODUCTION GERMANY” SEGMENT

At our German site in Freiberg, we will triple our module capacity to 450 MW by the end of 2010/beginning of 2011 in order to benefit from the expected increase in demand in the end customer business. The expansion of wafer production at the Industrial and Commercial Estate East, targeting 1 GW for the entire Freiberg location, is progressing according to plan.

## FUTURE DEVELOPMENT OF “PRODUCTION USA” SEGMENT

At our site in Hillsboro, Oregon, we are constructing a module production plant with a capacity of 350 MW to be finished by the end of 2011. Together with the existing 150 MW production in Camarillo, California, we will reach a total module capacity of 500 MW in the USA. In Hillsboro we are going to enhance our cell production capacity to 500 MW.





## FUTURE SALES MARKETS 2010+, “TRADE” SEGMENT

We are expecting our global shipments to grow in line with the expansion of our production volumes in 2010. We have a presence in all key solar markets worldwide and are monitoring the markets in the framework of our risk and opportunities management. This approach enables us to respond quickly to short-term regional shifts in demand and to continually optimize our group-wide sales strategy.

In Germany we are expecting demand hikes for the first half of 2010. This anti-cyclical market behavior will be driven by amendments to the EEG announced by federal environment minister, Norbert Röttgen. → [EEG amended](#) • p. 136// As of the second half of the year, the demand for rooftop systems mainly producing power for self-consumption to be coupled with corresponding storage media is expected to rise. We will extend our assortment accordingly to include storage technology in order to be able to serve the expected demand on the market optimally. → [Future products and services](#) • p. 142// The demand for free-field systems is expected to decline in the German market as of the second half of the year. This will be due to the planned additional reduction in the feed-in tariff<sup>9</sup> by 15 per cent. Systems installed on arable land should no longer be funded. Nevertheless, thanks to its selective marketing strategy in other European growth markets such as France, Italy, the Czech Republic, and Belgium, SOLARWORLD is convinced it will be able to increase sales. For 2010, EPIA forecasts a total sales volume of up to 2.7 GW for Europe (excluding Germany).

We expect sales growth in France, driven primarily by our ENERGYROOF<sup>®</sup> product. → [Products “Made by SolarWorld”](#) • p. 088// EPIA expects a volume of 340 to 500 MW (2009: 196 MW) for the French market for 2010, driven primarily by integrated rooftop systems. In Belgium and Italy we expect an increase in demand for our complete SUNKITS<sup>®</sup>. Since all components are precisely coordinated, assembling the systems is particularly easy and fast. This gives us a special competitive edge in young markets with limited installation experience. Moreover, we are able to benefit from our good relationships with systems integrators and wholesalers.

We also expect a strong rise in demand in the USA, boosted by the incentive programs adopted at the end of 2009. → [Incentive programs take effect](#) • p. 137// We will reinforce our marketing activities in this market in order to increase awareness of SOLARWORLD. Our newly established subsidiary, SOLARWORLD POWER PROJECTS INC., will enable us to increase our operations in the growing market for free-field systems. We expect to be able to increase our shipments and gain additional market shares.

We also consider that the off-grid segment offers additional sales potential. With respect to off-grid applications, our sales office in South Africa expects stronger demand from Nigeria and Angola for 2010. In South Africa a market for on-grid systems is expected to develop alongside the off-grid market, boosted by new statutory feed-in tariffs as of 2010. In Asia and South America we are also expecting demand to grow for off-grid solutions, served by our rural modules.



## FUTURE RESEARCH AND DEVELOPMENT ACTIVITIES // “OTHER” SEGMENT

### USE OF NEW TECHNOLOGIES AND PROCESSES

**ENHANCING COST EFFICIENCY.** We will consistently pursue our existing innovation targets in 2010 and beyond. → *Innovation report 2009 • p. 090*// In the process we want to further increase our cost efficiency. Step by step we will transfer our further developed wafer, cell and module generations with higher degrees of efficiency, increased material yields and improved quality into the production process. This will increase our cost efficiency even further. In 2010 our R&D will be working on increasing module performance through improved optical confinement, i.e. the optimization of light capture as well as the reduction of resistance losses.

**ACCELERATING THE DEVELOPMENT OF BATTERIES.** Against the backdrop of the planned amendment to the EEG, we will tackle a further key topic related to renewable energies in 2010 in cooperation with a number of companies: storage technology. Here, too, we are aiming to be a key driver of technological progress.

### FUTURE PRODUCTS AND SERVICES

**FULLY TAPPING MARKET POTENTIAL.** We will continue to focus on our core business with crystalline solar power applications and increasingly invest in our module and systems portfolio. Sales of these high-quality standard products will continue to be the basis of our corporate success. We intend to make solar plants even easier, safer and more profitable to operate in order to fully tap the market potential for our technology. ② *Innovation targets and priorities 2009 • p. 092*// To this end, we will consistently increase the output classes of our standard modules of the SUNMODULE PLUS<sup>®</sup> brand and offer new or modified rack and assembly systems.

**INCREASING HOUSEHOLD SELF-CONSUMPTION OF SOLAR POWER THROUGH BATTERIES AND SMART HOME TECHNOLOGY.** Working with cooperation partners, SOLARWORLD will also launch a battery system on the market as of 2010. It can be used to store solar electricity and then consume it at a later point in time. We will thus offer a smart home energy supply system based on the motto “Power generated on your roof, stored in the basement”. With our battery system, we will not only respond to the changed market situation in 2010 following the amendment to the EEG, but also chart a new course in terms of decentralized energy supplies and thus enhance the competitiveness of solar power. → *Up on the rooftops of the world*//

**CUSTOMER-CENTERED AND FUTURE-ORIENTED ASSORTMENT.** In 2010 we will also partly redesign our existing assortment. With completely black modules and the new compact format, we will offer aesthetic variants and tap new customer groups, above all among design-oriented home owners. A further offering tailored to the needs of our end customers is our SUNCARPORT<sup>®</sup>, a carport that already produces solar power to be fed into the grid or consumed by the household and which, in future, will also serve as a solar “power filling station” for electric or hybrid vehicles. → *Up on the rooftops of the world*//



**IMPROVED WARRANTY TERMS AND CONDITIONS.** Alongside these market launches, we will underpin the quality promise made by SOLARWORLD in 2010: above all through a considerable improvement in warranty terms and conditions. Since 1 January 2010 we have extended our product liability to a period of five years and have been the first manufacturer in our sector to offer a linear performance warranty over twenty-five years.

BE INDEPENDENT

BE SUSTAINABLE

BE SUCCESSFUL

### **FACTS: LINEAR PERFORMANCE WARRANTY**

Customary market guarantees only offer staggered performance warranties to customers, e.g. 90 per cent of the lowest rated output for the first ten years, and 80 per cent as of year eleven. SOLARWORLD's linear performance warranty means that the actual output of the solar power modules will at least be 97 per cent of rated output in the first year of operation and that it will not decline by more than 0.7 per cent of rated output per annum as of the second year of operation. SOLARWORLD modules will thus have an actual output of at least 80.2 per cent of rated output after expiry of the warranty in the 25th year of operation. The performance warranty is based on the service certificate valid at the purchasing date.

## FUTURE PROCUREMENT

Supplies of our raw material silicon for the planned growth of our group in 2010 have been fully secured by means of long-term delivery contracts as well as in-house production and recycling<sup>9</sup> accounting for an estimated proportion of about 20 per cent. For consumables, secure supplies have been contractually fixed for 2010.

We will support further expansion measures or peaks through additional raw material contracts. Due to the worldwide rise in silicon capacities → *Further rise in supply* • p. 135// silicon prices are expected to be stable or even fall in 2010.

We will reduce specific raw material costs in 2010 in comparison to the year under review. This is to be achieved by optimized purchase terms, consumption optimization and efficiency enhancements.



## HUMAN RESOURCES – FUTURE DEVELOPMENT

In order to be able to realize our ambitious expansion plans, our HR management will again focus on qualitative and quantitative employment growth in 2010. We will support qualification, internal job advertisements and career opportunities, and will also recruit new staff and invest in our workforce and thus create a significant competitive edge in light of the looming threat of a shortage of skilled labor.

In the year 2010 we are planning to hire additional employees on a full-time basis. The strategic core areas for new recruitments will be Sales, Production, and Research & Development. Knowledge motivates each individual employee and enhances the value of our company. That is why SOLARWORLD also attaches a great deal of strategic importance mainly to vocational and ongoing training for existing employees – both in 2010 and beyond. Our activities in this area: We intend to further expand the promotion of cooperation spanning different sites. We will also continue our new executive development program spanning different sites in 2010, just as with our junior staff and executive training schemes that have been successfully implemented for several years.

Due to the rapid growth over recent years, the convergence of all group sectors and sites will gain importance for SOLARWORLD. To this end, we need a clear corporate and management culture since this is what underpins our corporate strategy and thus also boosts the sustainability of our operations. In the year under review we therefore launched a new project and will develop our corporate culture further on the basis of our joint SOLARWORLD values. In 2010 we will include the executives from all sites in further validation of the value basis established as a first step. This will strengthen all executives' identification with our corporate culture<sup>9</sup> and create a common understanding of values as a basis for management behavior. Since executives also play the role of multipliers for our employees, they will also contribute to spreading our corporate culture to the entire company.

Our employees and their know-how constitute one of the major strengths of SOLARWORLD – and they are therefore our key resource. If our employees are satisfied with their workplace and their tasks, they will be particularly efficient and productive. That is why we take our employees' feedback very seriously and regularly conduct employee satisfaction surveys. So far, these surveys and studies have focused on Germany – and we now intend to place a stronger focus on our US site in Hillsboro, where we employed 551 people at the end of 2009, around 28 per cent of our overall group headcount. In the framework of the "Oregon Business Magazine Best Employers Survey" we will probably take part in an expert survey at the end of 2010. In the next few years we intend to use the outcome of the surveys to determine our strengths and weaknesses and derive measures to stabilize and increase our employees' satisfaction, and ultimately secure and expand SOLARWORLD's strong position.



## EXPECTED EARNINGS AND FINANCIAL SITUATION

**ESTIMATED DEVELOPMENT OF REVENUE AND RESULT.** In 2010, the scheduled increase of our production volume amounts to more than 30 per cent, i.e. we will maintain our growth rate. We will intensify our investments in expanding our capacities, in research and development and in increasing SOLARWORLD brand awareness; our high equity ratio<sup>9</sup> and liquidity are a major competitive advantage in this respect, too. Against the background of the pending legal framework conditions on the core market Germany at the time of reporting, we plan to sustainably exceed the previous year's revenue level of € 1 billion.

We will still shift the wafer volume from long-term contracts to refinement of solar modules or kits. With regard to the profit for the year, the decisive factor will be the level of price degression that will have to and can be absorbed on the cost side.

**FUTURE DIVIDEND AND DISTRIBUTION.** Due to the sound earnings development, the Management Board and the Supervisory Board will propose distribution of a dividend<sup>9</sup> of 16 (previous year: 15) cents per share for fiscal year 2009 to the Annual General Meeting held on 20 May 2010. The Annual General Meeting will decide on the appropriation of retained earnings from the individual financial statements of the joint stock corporation for fiscal year 2009 with an amount of € 17.88 million to be distributed for the 111.72 million dividend-bearing no-par value shares. Our shareholder-oriented dividend policy is placed on a broad basis through profit and loss transfer agreements with our major German subsidiaries.

Following the resolution on the distribution of a dividend, the remaining retained earnings of SOLARWORLD AG of € 89.6 million will be transferred to revenue reserves. This will secure the SOLARWORLD Group's equity basis for financing further investment projects.

From today's perspective, SOLARWORLD AG will continue its steady dividend policy over the long term, assuming that corresponding retained earnings are achieved and weighing up the development of liquidity and investments required. ➔ *Annual General Meeting 2009 resolves a cap on Management Board remuneration and dividend* • p. 066 //

**SCHEDULED FINANCING MEASURES.** In January 2010, SOLARWORLD AG placed a € 400 million bond on the capital market. In consideration of these measures, the existing liquidity and sustainable earning power of SOLARWORLD, we have – from today's point of view – sufficient financial means available to finance our short- and medium-term growth targets and, at the same time, still retain a strategic liquidity reserve at all times.

**SCHEDULED INVESTMENTS.** The worldwide expansion of our manufacturing capacities will be continued as planned in 2010. The predominant proportion of investment expenses will again fall upon the Freiberg, Germany and Hillsboro, USA locations. In Freiberg, we will continue to expand wafer production and, simultaneously, increase the module production capacity to some 450 MW by late 2010/early 2011. In



Hillsboro, we will continue to expand the manufacturing capacities for integrated cell and wafer production and push the expansion of module production to 350 MW. In addition, the module production capacity of our South Korean joint venture will be further increased in the course of 2010.

The setting up of a central research and development centre at the Freiberg location will be finalized as planned in 2010.

Presently, we expect a group-wide 2010 investment volume of up to € 300 million.

**ESTIMATED DEVELOPMENT OF LIQUIDITY.** As at 31 December 2009 free liquidity (liquid funds and other financial assets) amounted to € 509.7 million (31 December 2008: € 836.1m). SOLARWORLD AG received further liquid funds of € 400 million from the placement of a bond in early 2010.

#### OVERALL STATEMENT BY THE MANAGEMENT BOARD ON THE ANTICIPATED DEVELOPMENT OF THE GROUP

Also for the future we are expecting a market environment in which we can grow in the long term. As one of the leading producers and providers of solar power technologies worldwide with a strong brand we have positioned ourselves competitively in the market. As a fully integrated company we feel we can take on the price and margin pressure caused by the planned EEG amendment in Germany as well as the worldwide increase in competition by way of cost reductions and technological progress along the entire solar value chain. Following our strategy we will further expand our position in the core markets but will also increasingly open up new growth regions.



# CONSOLIDATED FINANCIAL STATEMENTS

---

<b>149</b>	<b>CONSOLIDATED FINANCIAL STATEMENTS</b>
149	CONSOLIDATED INCOME STATEMENT
150	CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME
151	CONSOLIDATED BALANCE SHEET
152	CONSOLIDATED STATEMENT OF CHANGES IN EQUITY
153	CONSOLIDATED CASH FLOW STATEMENT
<b>154</b>	<b>NOTES</b>
<b>209</b>	<b>AUDITOR'S REPORT</b>
<b>210</b>	<b>RESPONSIBILITY STATEMENT</b>

---

➔ Cf. to text passage • page//  
@ Cf. to to chart • page//  
🌐 [www.internetlink.com](http://www.internetlink.com)  
📍 Cf. to sustainability index • page//  
📍 Cf. to solar World Map • Insert//  
Cf. to glossary<sup>9</sup>

# CONTENT

## **149 CONSOLIDATED FINANCIAL STATEMENTS**

149	CONSOLIDATED INCOME STATEMENT
150	CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME
151	CONSOLIDATED BALANCE SHEET
152	CONSOLIDATED STATEMENT OF CHANGES IN EQUITY
153	CONSOLIDATED CASH FLOW STATEMENT

## **154 NOTES**

154	GENERAL DISCLOSURES
165	ACCOUNTING POLICIES
176	COMMENTS ON THE INDIVIDUAL ITEMS OF THE INCOME STATEMENT
182	SEGMENT REPORTING
186	COMMENTS ON THE BALANCE SHEET
196	OTHER COMMENTS
<b>209</b>	<b>AUDITOR'S REPORT</b>
<b>210</b>	<b>RESPONSIBLY STATEMENT</b>





# CONSOLIDATED FINANCIAL STATEMENTS

FOR THE BUSINESS YEAR JANUARY 1, 2009 TO DECEMBER 31, 2009

56 CONSOLIDATED INCOME STATEMENT 2009 // IN k€

	Notes	2009	2008
1. Revenue	22, 24, 37	1,012,575	900,311
2. Change in inventories of finished goods and work in progress	10, 22	48,830	15,160
3. Own work capitalized	25	3,117	7,740
4. Other operating income	6, 22, 26, 34	50,653	26,123
5. Cost of materials	27	-691,062	-454,060
6. Personnel expenses	28	-99,783	-90,130
7. Amortization and depreciation	7, 8, 29, 37, 38	-63,659	-55,166
8. Other operating expenses	6, 22, 30, 34	-108,865	-86,718
<b>9. Operating result from continued operations</b>	<b>37</b>	<b>151,806</b>	<b>263,260</b>
10. Result from investments measured at equity	9, 32	-4,579	-8,612
11. Interest and similar income	22,32	29,844	41,438
12. Interest and similar expenses	22,32	-55,206	-49,046
13. Other financial result	6,22,32	9,887	-58,371
<b>14. Financial result</b>		<b>-20,054</b>	<b>-74,591</b>
<b>15. Income from continued operations before taxes on income</b>		<b>131,752</b>	<b>188,668</b>
16. Taxes on income	23,33	-72,779	-53,422
<b>17. Income from continued operations</b>		<b>58,973</b>	<b>135,246</b>
<b>18. Income after taxes from discontinued operations</b>	<b>35</b>	<b>0</b>	<b>13,432</b>
<b>19. Consolidated net income</b>		<b>58,973</b>	<b>148,678</b>
20. Earnings per share	36		
a) Weighted average number of shares outstanding (in 1,000)		111,720	111,720
b) Income from continued operations (in €)		0.53	1.21
c) Income from discontinued operations (in €)		0.00	0.12
<b>Consolidated net income (in €)</b>		<b>0.53</b>	<b>1.33</b>

## ⑤ CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME 2009// IN k€

	2009	2008
Consolidated net income	58,973	148,679
Other comprehensive income		
Net result from cash flow hedges		
Profits/losses of the current period	-12,662	12,839
Reclassifications to income statement	497	-4,363
	-12,165	8,476
Income tax effects	3,866	-2,630
	-8,299	5,846
Currency translation of foreign operations	-9,243	10,359
Net result from financial assets available for sale		
Profits/losses of the current period	0	290
Reclassifications to income statement	-290	0
	-290	290
Income tax effects	4	-4
	-286	286
Other comprehensive income for the period, net of tax	-17,828	16,491
Total comprehensive income for the year	41,145	165,170

## ⑤⑧ CONSOLIDATED BALANCE SHEET AS OF DECEMBER 31 // IN k€

Assets	Notes	Dec. 31, 2009	Dec. 31, 2008
<b>A • Noncurrent Assets</b>		<b>881,824</b>	<b>666,884</b>
I. Intangible assets	7, 38, 39	37,297	33,861
II. Property, plant and equipment	8, 38, 40	787,536	575,406
III. Investments measured at equity	9, 41	50,243	30,544
IV. Other financial assets	13, 42	849	0
V. Deferred tax assets	23, 33, 43	5,899	27,073
<b>B • Current Assets</b>		<b>1,334,390</b>	<b>1,453,166</b>
I. Inventories	10, 44	598,154	523,766
II. Trade receivables	11, 45, 61	211,401	71,219
III. Current income tax assets	23, 46	2,157	914
IV. Other receivables and assets	12, 47	12,987	21,164
V. Other financial assets	13, 17, 48, 61	81,602	404,414
VI. Liquid funds	14, 49, 61, 62	428,089	431,689
<b>C • Assets Held for Sale</b>	<b>15, 50</b>	<b>836</b>	<b>572</b>
		<b>2,217,050</b>	<b>2,120,622</b>
<b>Equity and Liabilities</b>	<b>Notes</b>	<b>Dec. 31, 2009</b>	<b>Dec. 31, 2008</b>
<b>A • Equity</b>	<b>51</b>	<b>865,462</b>	<b>841,075</b>
I. Subscribed capital		111,720	111,720
II. Capital reserve		296,489	296,489
III. Other reserves		-11,517	6,311
IV. Accumulated profits		468,770	426,555
<b>B • Noncurrent Liabilities</b>		<b>1,119,411</b>	<b>1,093,559</b>
I. Noncurrent financial liabilities	16, 17, 52, 61	750,584	675,406
II. Accrued investment grants	18, 53	68,279	78,842
III. Noncurrent provisions	19, 20, 54	24,023	23,242
IV. Other noncurrent liabilities	21, 56	250,662	292,485
V. Deferred tax liabilities	23, 33, 57	25,863	23,584
<b>C • Current Liabilities</b>		<b>232,177</b>	<b>185,988</b>
I. Current financial liabilities	6, 16, 17, 52, 61	38,915	28,714
II. Trade payables	16, 55, 61	83,943	70,413
III. Income tax liabilities	23, 58	25,218	20,219
IV. Current provisions	20, 54	5,426	5,716
V. Other current liabilities	6, 21, 56	78,675	60,926
		<b>2,217,050</b>	<b>2,120,622</b>

## ⑤9 CONSOLIDATED STATEMENT OF CHANGES IN EQUITY 2009 // IN k€

Note 4, 51	Subscribed capital	Capital reserve	Other reserves			Accumulated profits	Total
			Exchange reserve	Reserve from hedging of cash flows**	Reserve for assets available for sale*		
As per Dec 31, 2007	111,720	296,489	-13,482	3,302	0	293,517	691,546
Dividend distribution						-15,641	-15,641
Total comprehensive income			10,359	5,846	286	148,679	165,170
As per Dec 31, 2008	111,720	296,489	-3,123	9,148	286	426,555	841,075
Dividend distribution						-16,758	-16,758
Total comprehensive income			-9,243	-8,299	-286	58,973	41,145
As per Dec 31, 2009	111,720	296,489	-12,366	849	0	468,770	865,462

\* Hereinafter "AfS-reserve"

\*\* Hereinafter "Hedging reserve"

## ⑥⑩ CONSOLIDATED CASH FLOW STATEMENT 2009// IN k€

Note 62	2009	2008
Income before tax	131,752	202,355
+ Amortization and depreciation	63,659	55,166
+ Financial result (without gains/losses from currency translation)	18,817	72,144
+ Loss from disposal of assets	608	322
- Reversal of accrued investment grants	-10,461	-10,210
- Other material non-cash income	-25,417	-13,686
<b>= Cash flow from operating result</b>	<b>178,958</b>	<b>306,091</b>
+/- Changes in prepayments and customer advances (balance)	10,148	-10,790
- Increase of inventories (devoid of prepayments)	-67,969	-42,459
+ Decrease of securities (categorized as trading)	0	17,041
-/+ Increase/decrease trade receivables	-140,200	39,855
+ Increase/decrease trade liabilities	17,038	19,530
+/- Changes in other net assets	-3,891	-288
<b>= Cash flow from operating result and changes in net assets</b>	<b>-5,916</b>	<b>328,980</b>
+ Interest received	15,497	31,623
- Taxes on income paid	-42,578	-40,140
<b>= Cash flow from operating activities</b>	<b>-32,997</b>	<b>320,463</b>
- Cash outflow for asset investments	-318,415	-269,515
+ Cash inflow from investment grants	5,103	29,042
+ Cash inflow from the disposal of assets	1,767	8,602
+ Cash inflow from financial investments	320,112	53,627
+ Cash inflow from the disposal/purchase of consolidated entities	5,885	12,996
<b>= Cashflow from investment activities</b>	<b>14,452</b>	<b>-165,248</b>
+ Cash inflow from borrowings	100,000	78,711
- Cash outflow for redemption of borrowings	-18,601	-28,228
- Interest paid	-39,746	-33,008
- Dividend distributions	-16,758	-15,641
<b>= Cash flow from financing activities</b>	<b>24,895</b>	<b>1,834</b>
+ Net changes in cash and cash equivalents	6,350	157,049
Exchange rate effects as well as effects from changes in the group		
+/- of consolidated companies on cash and cash equivalents	-1,615	725
+ Cash and cash equivalents at the beginning of the period	423,354	265,580
<b>= Cash and cash equivalents at the end of the period</b>	<b>428,089</b>	<b>423,354</b>

# NOTES

## GENERAL DISCLOSURES

### 1. BASIC PRINCIPLES, ACCOUNTING POLICIES

SOLARWORLD AG is a listed corporation domiciled in Germany. SOLARWORLD AG's Executive Board prepared the consolidated statements on March 12, 2010 and released them for disclosure on the same day.

The consolidated financial statements of the SOLARWORLD AG as of December 31, 2009 have been prepared – pursuant to Section 315a of the German Commercial Code (HGB) – according to the International Financial Reporting Standards (IFRS) of the International Accounting Standards Board (IASB) and the Interpretations of the International Financial Reporting Interpretations Committee (IFRIC) endorsed by the European Union (EU) and in effect at the closing date. In addition, the commercial law regulations further stated in Section 315 para. 1 HGB have been considered. All mandatory applicable standards and interpretations were taken into account. IFRS not yet compulsory were not applied.

The consolidated financial statements are prepared in Euro. Unless otherwise stated, all amounts are rounded either up or down to the nearest full thousand (k€) in accordance with commercial rounding.

The income statement was prepared in accordance with the nature of expense method. Balance sheet classifications follow maturities.

With regard to applied accounting policies, we refer to the illustration of the accounting principles below. They basically correspond with those principles applied last year except for those stated as an exception from that rule below.

#### Initial mandatory application of standards and interpretations in 2009

The following standards and interpretations or essential changes were to be initially applied in 2009:

- IAS 1 “Presentation of financial statements (revised)”
- IAS 23 “Borrowing costs (revised)”
- IAS 32 “Financial Instruments: presentation” and IAS 1 “Presentation of financial statements” – Puttable instruments and obligations on liquidation
- Amendments to IAS 39 “Financial instruments: recognition and measurement” and IFRS 7 “Financial instruments: disclosures” – Reclassification of financial assets
- Amendments to IFRS 1 “First-time adoption of international financial reporting standards” and IAS 27 “Consolidated and separate financial statements” – Cost of investments in subsidiaries, jointly controlled entities and associates
- IFRS 2 “Share-based payment: vesting conditions and cancellations”
- IFRS 7 “Financial instruments: disclosures”
- IFRS 8 “Operating segments”
- Improvements to IFRS (2008)
- IFRIC 9 “Reassessment of embedded derivatives” and IAS 39 “Financial instruments: recognition and measurement”
- IFRIC 13 “Customer loyalty programmes”
- IFRIC 15 “Agreements for the construction of real estate”
- IFRIC 16 “Hedges of a net investment in a foreign operation”

For lack of customer loyalty programmes, IFRIC 13 is not applicable to SOLARWORLD AG. IFRIC 15 and IFRIC 16 will not be applicable either. The changes of IFRS 1 are no longer applicable to SOLARWORLD AG. In the absence of share-based payment programmes, the changes in IFRS 2 are not applicable.

The amendments regarding IAS 1 “Presentation of financial statements (revised)” were published on September 6, 2007, endorsed by the EU on December 17, 2008 and are applicable to reporting periods beginning on or after January 1, 2009. The revised standard requires separate presentations for changes in equity resulting from transactions with equity holders in their capacity as equity contributors and other changes in equity. The statement of changes in equity therefore only includes details regarding transactions with shareholders while other changes in equity are presented in total by way of a reconciliation for individual equity components. In addition, the standard introduces a statement of comprehensive income in which all profit or loss components recognized in the income statement and all result components recognized in equity thereby not affecting profit or loss are either presented in a single statement or in two interconnected statements. In this respect, the Group decided to present two separate statements. Another material change of the revised IAS 1 is the obligation to disclose an opening balance sheet for the first period affected by a retrospective change of accounting. In this regard, we refer to our comments in note 6.

The amendments of IAS 23 were announced on March 29, 2007, adopted into EU law on December 10, 2008 and are applicable for financial years beginning on or after January 1, 2009. In accordance with the transitional provisions, the standard is to be applied prospectively. Thus, the application is not mandatory for qualifying assets that were capitalized prior to January 1, 2009. The amendments eliminate the option to directly recognize interest for borrowing cost in the scope of acquisition or manufacturing of qualifying assets as an expense. IAS 23.5 defines a qualifying asset as an asset that necessarily takes a substantial period of time to get ready for its intended use or sale. SOLARWORLD AG capitalizes directly attributable borrowing costs as part of cost if the production of intangible assets or assets of property, plant and equipment is scheduled to take at least one year. As a result of the amendment to this standard, no borrowing costs were capitalized in 2009.

The amendments of IAS 32 and IAS 1 were announced on February 14, 2008, adopted into EU law on January 21, 2009 and are applicable for financial years beginning on or after January 1, 2009. To a limited extent, the amendments allow exemptions that permit a classification of puttable instruments as equity if they meet certain criteria. The application of these amendments did not have any impact on the financial position and financial performance of the Group.

On November 27, 2008, the IASB published an amended version of the “Amendment to IAS 39 and IFRS 7: Reclassification of Financial Instruments” first announced on October 13, 2008. The amendments were adopted into EU law on September 9, 2009. The amendments issued on October 13, 2008 concerned the reclassification of several financial instruments and had been applicable per July 1, 2008. The reason for the new amendment was the clarification of the application date of the amendments announced on October 13, 2008. Reclassifications that were made on or after November 1, 2008 are effective from the time of reclassification and may not be recognized as such retrospectively. If the reclassification regulations were applied prior to November 1, 2008, they may be withdrawn until July 1, 2008 or a later date. However, reclassifications may not be applied before July 1, 2008.

The amendment to IFRS 7 was announced on March 6, 2009 and adopted into EU law on November 27, 2009. It is applicable for financial years beginning on or after January 1, 2009. Presentation of comparative information is not mandatory in the first year of application. The amended standard provides for additional disclosures regarding the determination of the fair values and the liquidity risk. The amendment requires a quantitative analysis of the determination of fair values on the basis of a three-step hierarchy for each class of financial instruments recognized at fair value. In addition, a reconciliation of beginning and ending balance is now mandatory for measurements at fair value with regard to step three as is the disclosure of material reclassifications between steps 1 and 2 of the determination hierarchy. The amendment also clarifies the requirements for disclosures of liquidity risks with respect to transactions that concern derivatives and of assets used for the purpose of liquidity management. The disclosures of fair values are presented in note 61.

IFRS 8 was announced on November 30, 2006, adopted into EU law on November 21, 2007 and is applicable for financial years beginning on or after January 1, 2009. IFRS 8 replaces IAS 14 “Segment Reporting” and is almost identical to SFAS 131 (US GAAP). The former primary and secondary reporting format differentiating between business segments and geographical segments is abandoned and transformed into a single reporting format, which shows segments on

the basis of information used by management for steering the entity. In addition, a reconciliation of the segment figures to the Group figures is required for each reportable segment. Furthermore, geographical areas, products and major customers are to be disclosed. SOLARWORLD AG applies the regulations of IFRS 8 starting with the financial year 2009. We refer to our comments in note 37.

On May 22, 2008, the IASB, in the scope of its first Annual Improvement Project, announced amendments for a number of existing IFRS. These were adopted into EU law on January 23, 2009. The amendments comprise both wording adjustments of individual IFRS for the purpose of clarifying existing regulations and amendments of several IFRS impacting recognition, measurement and presentation of business transactions. Most of the amendments are applicable for financial years beginning on or after January 1, 2009. The following contents of the collective standard for IFRS improvements are of basic relevance for SOLARWORLD AG:

- IAS 1 “Presentation of financial statements”: In correspondence with IAS 39 “Financial instruments: recognition and measurement”, assets and liabilities held for trading are not automatically classified as current on the balance sheet. This does not have any effects on the consolidated financial statements.
- IAS 16 “Property, plant and equipment”: The term “net selling price” is replaced by “fair value less cost to sell”. No effects on the Group’s financial position, financial performance and cash flows arise therefrom.
- IAS 28 “Investments in associates”: For the purpose of conducting an impairment test, an investment in an associate constitutes a separate asset. Thus, impairments are no longer separately allocated to the goodwill included in the recognition of the investment in the associate. This does not affect the consolidated financial statements.
- IAS 36 “Impairment of assets”: Additional disclosures regarding the discounting rate are necessary if the fair value less cost to sell is determined on the basis of a discounted cash flow method. The disclosures correspond with those mandatory disclosures required if a discounted cash flow method is used for determining the “value in use”. The Group is making the necessary disclosures.
- IAS 10 “Events after the balance sheet date”: The standard clarifies that dividends declared after the balance sheet date do not constitute liabilities. This does not have significant effects on the consolidated financial statements.
- IAS 39 “Financial Instruments: recognition and measurement”: After initial recognition, derivatives may be designated “recognized at fair value through profit or loss” or removed from this category due to a change in surrounding conditions as this does not constitute a reclassification in terms of IAS 39.50. In IAS 39.73, the reference to a “segment” with regard to the statement of whether an instrument meets the criteria of a hedging item was deleted. The use of a recalculated effective interest rate is required if a financial asset is reclassified in accordance with IAS 39.50B, 50C or 50E and the company subsequently increases its estimations regarding the future cash inflows. The facts and circumstances do not have significant effect on the consolidated financial statements.

The amendments of IFRIC 9 and IAS 39 were announced by the IASB on March 12, 2009 and adopted into EU law on November 30, 2009. The intention was to clarify the accounting of embedded derivatives in the event of reclassifications of financial instruments. It needs to be examined whether a derivative embedded in a host contract needs to be separated and, accordingly, needs to be separately recognized in the financial statements if the entire hybrid financial instrument is reclassified from the category “at fair value through profit or loss” due to the application of the amendments of IAS 39 of October 2008. The decisive factors for the examination are the relationships at the time the entity first became a party to the contract regarding the financial instrument or, if later than that, at the time the contract terms were amended in a manner that significantly modifies the cash flows. If, as a result of the assessment, the separation of the derivative becomes necessary but its fair value cannot be reliably determined, the entire hybrid instrument will remain in the “at fair value through profit or loss” category. This also applies if the entity cannot conduct the examination. The changes are applicable retrospectively for financial years beginning on or after June 30, 2009. This amendment does not make for any material impacts on the consolidated financial statements.



### Standards and interpretations not yet mandatory

In 2009, SOLARWORLD AG did not apply any standards that were not yet mandatory. At this time, we estimate the potential effects of the following interpretations to be marginal:

→ IFRS 3	“Business combinations (revised)” and IAS 27 “Consolidated and separate financial statements (revised)” including the subsequent amendments in IFRS 7, IAS 21, IAS 28, IAS 31 and IAS 39
→ Amendment of IAS 32	“Financial instruments: presentation”
→ IAS 39	“Financial instruments: recognition and measurement: eligible hedged items”
→ IFRIC 12	“Service concession arrangements”
→ IFRIC 17	“Distributions of non-cash assets to owners”
→ IFRIC 18	“Transfers of assets from customers”

The revision of IFRS 3 went hand in hand with an amendment of IAS 27 in the scope of the second phase of the project Business Combinations. The revision of IFRS 3 and the amendments of IAS 27 were announced on January 10, 2008, adopted into EU law on June 3, 2009 and are applicable for financial years beginning on or after July 1, 2009. IFRS 3 (revised) introduces material changes regarding the accounting of business combinations that take place after application date. This has impact on the measurement of shares without controlling influence, accounting of transaction costs, initial recognition and subsequent measurement of conditional consideration and business combinations achieved in stages. IAS 27 (revised) requires that a change in the amount of an investment in a subsidiary that does not result in the loss of control is accounted for as a transaction with shareholders in their capacity as shareholders. Thus, such a transaction can result neither in goodwill nor in profit or loss. Furthermore, provisions for the distribution of losses to shareholders of the parent company and shares without controlling influence and accounting rules for transactions that lead to a loss of control were amended. The revised regulations of IFRS 3 (revised) and IAS 27 (revised) will affect future acquisitions or losses of control of subsidiaries and transactions with shares without controlling influence.

On October 8, 2009, the IASB announced an amendment to IAS 32, which was adopted into EU law on December 2009 and is applicable to financial years beginning on or after February 1, 2010. The amendment concerns the issuer’s accounting of subscription rights, options and warrants in foreign currency on the acquisition of a fixed number of equity instruments. The amendment does not apply to SOLARWORLD Group.

The amendments of IAS 39 were announced on July 31, 2008 and are applicable to financial years beginning on or after July 1, 2009. They were adopted into EU law on September 15, 2009. The amendments clarify that it is admissible to designate only part of the changes in fair value or in cash flow fluctuations of a financial instrument as hedged item. This also includes the designation of inflation risks as a hedged risk or parts thereof in certain cases. The effects on the consolidated financial statements depend on the extent of hedging conducted and the extent of hedge accounting applied in this respect by the Group in the future.

IFRIC 12 and IFRIC 17 are of no relevance for SOLARWORLD Group.

IFRIC 18 was announced on January 29, 2009, adopted into EU law on November 27, 2009 and is applicable to financial years beginning on or after July 1, 2009. Subject of IFRIC 18 are general details on accounting for the transfer of an asset by a customer. The IASB believes this especially concerns the energy sector. The interpretation clarifies how to handle agreements in the scope of IFRS that concern the case in which a customer transfers assets to an entity (object or equipment) that have the purpose to either connect this customer to a network or provide constant supply of goods or services. This also concerns cases in which cash is provided that serves for acquiring or manufacturing said assets by the entity. In summary, it is explained when or under which circumstances an asset is at hand, the initial recognition and measurement, identification of the respective determinable services in exchange for the transferred asset, the question of at which point in time revenue is realized and in what way the transfer of payment means by customers is supposed to be accounted for. The effects on the Group’s financial position and financial performance are being investigated at this time.

The following accounting standards were passed in 2009, but had not yet been adopted into European law by the EU on December 31, 2009:

- Improvements to the IFRS (2009)
- IAS 24 “Related party disclosures (revised)”
- Amendments to IFRS 1 “Exemptions for first-time adopters”
- Amendments to IFRS 2 “Group cash-settled share-based payment transactions”
- IFRS 9 “Financial instruments: classification and measurement”
- Amendments to IFRIC 14 “Prepayments of a minimum funding requirement”
- IFRIC 19 “Extinguishing financial liabilities with equity instruments”

On April 16, 2009, the IASB announced the Annual Improvements 2007 - 2009 that provide for the amendment of ten IFRS and two interpretations. The majority of the amendments is applicable for financial years beginning on or after January 1, 2010. The following selected contents of the collective standard regarding the improvements of the IFRS could become relevant for SOLARWORLD AG:

- IAS 1 “Presentation of financial statements”
- IAS 7 “Preparation of cash flows”
- IAS 17 “Leases”
- IAS 18 “Revenue”
- IAS 36 “Impairment of assets”
- IAS 38 “Intangible assets”
- IAS 39 “Financial instruments: recognition and measurement”
- IFRS 5 “Non-current assets held for sale and discontinued operations”
- IFRS 8 “Operating segments”
- IFRIC 9 “Reassessment of embedded derivatives”

IAS 1 “Presentation of financial statements”: Until now, an entity had to classify a liability as current when it did not have an unconditional right to defer settlement of the liability for at least twelve months after the reporting period (IAS 1.69). If, however, the owner of a convertible bond can convert it to equity at any given time, the debt component of the convertible bond would have to be recognized as current at all times, even if redemption (if the right to convert is not exercised) is not due for twelve months after balance sheet date. To avoid this, IAS 1.69 now includes the notice that possibly existing options of the other party to demand the settlement of liabilities by way of issuance of equity instruments do not influence the classification of these liabilities as current or non-current. The consequences of this amendment on the consolidated financial statements are considered marginal.

IAS 7 “Preparation of cash flows”: The improvements 2009 clarified that only those outflows may be recognized in cash flow from investment activities that lead to an asset recognized on the balance sheet. Until now, expenses that were made with the intention of generating future cash flows, i.e. that did not lead to capitalizable asset, were included in the cash flow from investment activities by some entities while others included those in the cash flow from operating activities. This especially concerns the expenses for exploration and evaluation (IFRS 6), however also expenses for advertising, training and further education and research and development. This amendment is of no relevance to SOLARWORLD Group.

IAS 17 “Leases”: Although accounting for leases will fundamentally change in the medium term, the improvements brought about changes to IAS 17.14 and 17.15. This mostly concerns details on the classification of property leases. In addition, the new classification criteria were expanded to land lease by way of the newly introduced IAS 17.15A. The consequences of the amendment of IAS 17 are marginal for SOLARWORLD AG.

IAS 18: “Revenue”: The IASB added guidelines to the Appendix of IAS 18 that concern the assessment of whether an entity acts as a principal or an agent. The criteria to be taken into account are: Does the entity hold the primal responsibility for the performance of the transaction? Does the entity hold the inventory risk? Does the entity have a scope of discretion regarding the pricing? Does the entity hold the default risk? The Group is currently analyzing its business relationships with respect to these criteria. Substantial effects are not expected.

IAS 36 “Impairment of assets”: The amendment of IAS 36 clarifies that a cash-generating unit that has been attributed goodwill acquired in the scope of a business combination may not be larger than a business segment in terms of IFRS 8 prior to aggregation in accordance with the criteria set forth by IFRS 8. The amendment has no impact on the Group, as the impairment test was adjusted to the new segments. We refer to our comments in note 7.

IAS 38 “Intangible assets”: The amendments clarified that an intangible asset acquired in the course of a business combination might only be separable in connection with an associated contract, identifiable asset or liability. In this case, the intangible asset must be recognized separately from goodwill and in connection with the associated asset or liability. In addition, it was noted that a group of intangible assets complementing each other and with similar economic useful lives might be recognized as a single asset. It was also explained that the named methods for indirectly determining the fair value of intangible assets are merely possibilities and not an exhaustive enumeration of measurement methods. Given the current situation, this amendment does not affect SOLARWORLD Group.

IFRS 5 “Non-current assets held for sale and discontinued operations”: It was clarified that only the disclosure requirements of IFRS 5 must be met when it comes to non-current assets and disposal groups classified as held for sale and discontinued operations. The disclosure requirements set forth by other IFRS need to be considered only if the respective standards or interpretations expressly require these disclosures for assets in terms of IFRS 5 and discontinued operations. This clarification led to the following amendment of IFRS 8.

IFRS 8 “Operating segments”: The annual revision of the IFRS also led to the result that, in the scope of segment reporting, disclosures for segment assets only need to be made if these disclosures are subject of the periodic reporting to the chief operating decision maker of the entity. These disclosures used to be a mandatory component even if such information had not been provided to the chief operating decision maker of the entity. As neither segment liabilities nor segment assets are information that is made available to the chief operating decision maker of SOLARWORLD Group in the scope of internal reporting and provided this does not change, reporting in this respect will be discontinued starting in 2010.

IFRIC 9 “Reassessment of embedded derivatives”: In the scope of the IFRS improvements, it was resolved to not only explicitly exclude contracts acquired in the scope of a business combination in terms of IFRS 3 from the scope of application of IFRIC 9, but to also exclude those contracts that are transferred in the scope of business combinations under participation of entities or business operations under common control or in the event of establishment of a joint venture. From today’s point of view, this amendment has no impact on SOLARWORLD Group.

On November 4, 2009, the IASB announced the revised IAS 24. The amendments facilitate the disclosure obligations for entities under government control or significant government influence. Furthermore, the definition of related party relationships was clarified. The amendments apply to financial years beginning on or after January 1, 2011. They do not affect SOLARWORLD AG’s consolidated financial statements.

The amended IFRS 1 is no longer relevant for SOLARWORLD Group. Moreover, the amended IFRS 2 does not have any impact on SOLARWORLD AG’s consolidated financial statements.

IFRS 9, announced on November 12, 2009, is the first part of a project to replace IAS 39. The former four measurement categories are supposed to be replaced by the categories “at amortized cost” and “fair value”. Classification of a financial asset in the “at amortized cost” category thereby depends on the entity’s business model and the characteristics of the individual financial instrument. Non-compliance with the criteria leads to recognition at fair value through profit or loss. By way of exception, selected equity instruments can be measured at fair value without effect on income. Any changes in the fair value, however, need to be frozen in equity and do not affect profit or loss. The amendments are applicable to financial years beginning on or after January 1, 2013 and will have consequences with regard to the measurement of SOLARWORLD AG’s financial instruments.

The amendment of IFRIC 14 was announced on November 26, 2009 and concerns the case that an entity is subject to minimum funding requirements and pays contribution advances to meet these obligations. The amendment then permits to recognize this benefit from the advance payment as an asset. The amendments are applicable to financial years beginning on or after January 1, 2011. At this point, we do not see any effects on the financial position and financial performance of SOLARWORLD Group.

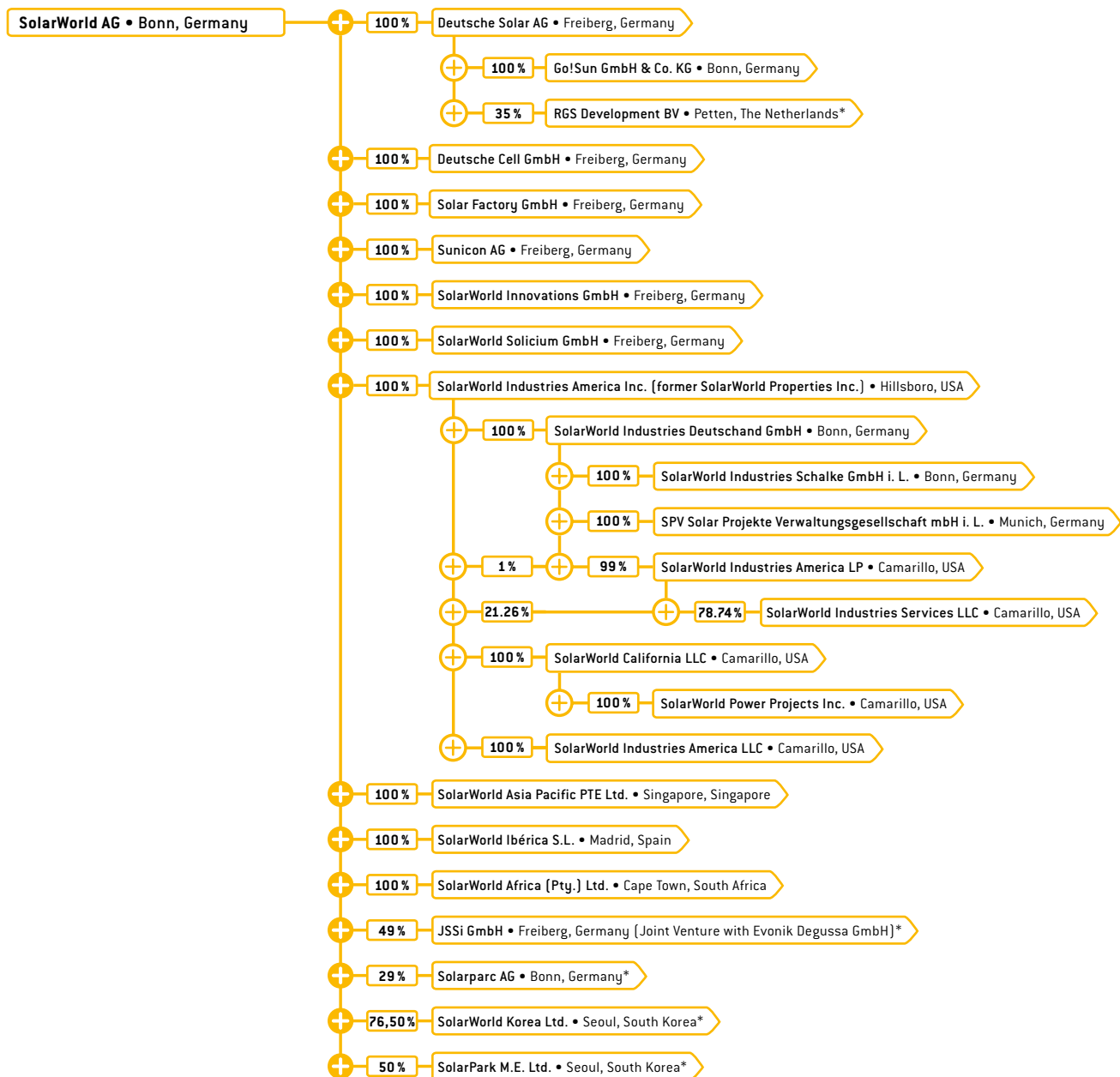
IFRIC 19 was announced on November 26, 2009 and explains the application of IFRS in the event that an entity fulfils in part or in full a financial liability by issuing shares or other equity instruments. The interpretation is applicable to financial years beginning on or after July 1, 2010. SOLARWORLD AG is not affected by this amendment.

## 2. SCOPE OF CONSOLIDATED FINANCIAL STATEMENTS AND LEGAL GROUP STRUCTURE

The consolidated financial statements include SOLARWORLD AG and all domestic and foreign entities of which SOLARWORLD AG directly or indirectly owns the majority of the voting power of the company or can otherwise control the company's activities. These companies are fully consolidated at the time SOLARWORLD AG is able to exert control. Consolidation ends at the time SOLARWORLD AG no longer controls the respective entity. Joint ventures are capitalized using the equity method.

As of December 31, 2009, the following companies are part of the SOLARWORLD Group in the structure presented below.

63 SOLARWORLD GROUP AS OF DECEMBER 31, 2009



\* Consolidated at equity

DEUTSCHE SOLAR AG, DEUTSCHE CELL GMBH, SOLAR FACTORY GMBH, SUNICON AG and SOLARWORLD INNOVATIONS GMBH make use of the disclosure and preparation facilitations of § 264 para. 3 HGB.

Per January 1, 2009 the US entities were realigned in terms of corporate and tax law as well as with respect to the respective fields of operations. The US business is bundled in a sub-group with SOLARWORLD INDUSTRIES AMERICA INC. (formerly: SOLARWORLD Properties Inc.) as operational parent company while this also creates a tax entity in the USA.

On July 15, 2009, the remaining 50 per cent of the shares in SOLARWORLD SOLICIUM GMBH were acquired for a purchase price of € 1. The entity was therefore fully consolidated for the first time. The negative difference of k€ 112 resulting from the initial consolidation was recognized in the item other operating income, thereby affecting profit or loss. The assets and liabilities acquired in the scope of initial consolidation and revenue and expenses realized by SOLARWORLD SOLICIUM GMBH since the date of acquisition are immaterial from the Group's point of view. At the time of initial consolidation, the company's largest balance sheet item was liquid funds in an amount of k€ 221.

SOLARWORLD POWER PROJECTS INC. was founded as a wholly owned subsidiary of SOLARWORLD CALIFORNIA LLC on April 29, 2009. The company will oversee the development of major projects on the important future market USA and start conducting business in 2010.

In December 2009, the 35 per cent share in GÄLLIVARE PHOTOVOLTAIC AB (GPV), Gällivare/Sweden, was sold for € 1. A negative effect on consolidated net income of k€ 4,933 fell upon the shares in GPV, which are recognized in "result from investments measured at equity".

In the scope of a capital increase, SOLARWORLD AG acquired new shares in the Joint Venture SolarWorld Korea Ltd. on July 29, 2009, and now holds 76.5 per cent in the company. However, the Joint Venture partner is entitled to reacquire 26.5 per cent of the shares in the company for a fixed price within the period of one year in order to re-establish an equal share quota. Therefore and due to the other contractual specifics of the Joint Venture, SolarWorld Korea Ltd. is still consolidated at equity at December 31, 2009.

On December 10, 2008, SolarPark Engineering Ltd., Seoul/South Korea, and SOLARWORLD AG concluded a Joint Venture agreement through which SOLARWORLD AG acquired 50 per cent of the shares in SOLARPARK M.E. LTD. on January 9, 2009. The Joint Venture was consolidated as an at equity investment per acquisition date. In 2009, SOLARPARK M.E. LTD.'s contribution to consolidated income amounts to k€ 336.

### 3. CONSOLIDATION PRINCIPLES

The financial statements of domestic and foreign entities included in the consolidation are reconciled to uniform accounting policies for the purpose of preparing the consolidated financial statements. The financial statements of the subsidiaries are prepared for the same reporting period as those of the parent company. All intra-group balances, income and expenses as well as unrealized profits and losses and dividends from intra-group transactions are eliminated in full.

For capital consolidation, cost of the participating interest is offset with the respective attributable equity proportion - measured at fair value - at the time of the acquisition. Any resulting positive difference is added to assets to the extent to that their carrying amount differs from fair value. Any remaining positive difference is considered goodwill. Any resulting negative difference is recognized through profit or loss.

#### 4. CURRENCY TRANSLATION

Financial statements of the consolidated companies that are presented in foreign currencies are translated into Euro (€) in accordance with the concept of functional currency as set forth by IAS 21. The functional currency of foreign companies is determined by the primary economic environment in which the company principally generates and uses means of payment. Within SOLARWORLD AG, functional currency basically equals the domestic currency with the exemption of SOLARWORLD ASIA PACIFIC PTE LTD. whose functional currency is the US-Dollar.

For the purpose of translating the foreign companies' financial statements into the reporting currency of the group, assets and liabilities are translated per closing rate while expenses and revenue are translated by means of the average annual rate. Due to the application of the closing date method, differences resulting from the translation are transferred to an exchange reserve, thereby not affecting profit or loss. The amount recognized in the reserve for a foreign operation is re-recognized and shown on the income statement upon disposal of the foreign operation.

The following exchange rates were decisive for currency translation:

1 € =		Closing rate		Average rate	
		2009	2008	2009	2008
USA	USD	1.44	1.39	1.40	1.47
Sweden	SEK	10.25	9.44	10.59	9.26
South Africa	ZAR	10.67	13.07	11.52	12.09
Korea	KRW	1,666.97	1,839.00	1,770.04	1,788.65*

\* Average rate Oct.–Dec. 2008

#### 5. SUBSTANTIAL JUDGEMENTS, ESTIMATIONS AND ASSUMPTIONS OF MANAGEMENT

In the scope of preparing the consolidated financial statements in consideration of IFRS, some items require that judgments, estimations and assumptions are made which affect recognition and measurement of assets and liabilities on the balance sheet or the amount and presentation of revenue and expenses on the group's income statement as well as the disclosure of contingent assets and liabilities. The uncertainty about these assumptions and estimations might make for results leading to significant adjustments of the carrying amount of the respective assets or liabilities in future periods.

The following substantial judgments were made when applying the Group's accounting principles in 2009:

SOLARWORLD Group concluded supply and purchase agreements that are – from an economic point of view – to be considered toll manufacturing and were therefore accounted for accordingly.

Customer advances and prepayments particularly include those in connection with long-term sale contracts regarding silicon wafers and long-term purchase agreements regarding elemental silicon. According to the agreements concluded, these advances and prepayments are non-interest-bearing. Due to the fact that from an economic standpoint these agreements contain a financing component, an implicit or matched maturity interest rate is compounded.

The most significant assumptions and estimations concern the evaluation of the potential need for a goodwill impairment, the usability of deferred tax assets, the reversal of customer advances through profit or loss, the uniform group specifications regarding the economic useful lives of property, plant and equipment, the measurement of financial instruments as well as the recognition and measurement of provisions. These assumptions and estimations are based on premises that are, in turn, based on the respective state of knowledge currently available.

Assumptions regarding expected business development particularly include as a basis the circumstances in existence at the time of preparation of the consolidated financial statements and the future development of the global and sector-specific environment as is deemed realistic at the time.

The Group's impairment tests regarding goodwill are based on calculations using the discounted cash flow method. The cash flows are derived from the finance plan of the next five years whereas future expansion investments that are not yet being implemented and will increase the earning power of the tested cash generating unit are not included. The recoverable amount greatly depends on the discount rate used in the scope of the discounted cash flow method as well as on the expected future cash inflows and the growth rate used for extrapolation. Details on the basic assumptions for determining the recoverable amount for the cash-generating unit are described in note 7.

With regard to tax loss carryforwards, deferred tax claims are recognized only if their realization is likely in the medium-term (within the next five years). If a tax unit shows a history of losses, deferred tax claims from loss carryforwards of this unit are only recognized if sufficient taxable temporary differences or substantial indications for their realization exist. When determining the amount of deferred tax assets suitable for capitalization, substantial management assumptions and estimations are necessary with respect to the expected time of occurrence and the amount of the future taxable income as well as future tax planning strategies. Further information on this can be found in note 33.

To the extent to that the fair value of financial assets and liabilities recognized on the balance sheet cannot be determined by way of active market data, it is determined in application of measurement procedures including the discounted cash flow method. If possible, the factors included in the model are based on observable market data. Should this be impossible, determination of the fair values is – to some extent – a decision based on judgment. Judgments concern parameters like liquidity risk, credit risk and volatility. Any change in the assumption of these factors could have an effect on the recognized fair value of the financial instruments. For further details, we refer to note 61.

Expenses from post-employment defined benefit plans and the present value of pension obligations are determined on the basis of actuarial computations. The actuarial measurement is carried out on the basis of assumptions regarding discount rates, future increases in wages and salaries, mortality and future increase in pensions. Due to the complexity of measurement, the assumptions used as a basis and their long-term nature, a performance-oriented obligation shows very sensitive reactions to any modifications of these assumptions. All assumptions are subject to evaluation at each balance sheet date. When determining the appropriate discount rate, management keeps to the interest rates of corporate bonds with at least sound creditworthiness. The mortality rate is based on publicly accessible mortality tables. Future increases in wages, salaries and pensions are based on expected future inflation rates. Further details regarding the applied assumptions can be found in notes 19 and 54.

With respect to the exact specification of assumptions made in connection with the determination of further provisions, we refer to the respective disclosures in notes 20 and 54.



## ACCOUNTING POLICIES

### 6. CHANGES IN DISCLOSURE

To show the operating result adjusted by exchange rate gains and losses, the Group decided in 2009 to show the exchange rate result in the income statement item "other financial result". The prior year's figures were adjusted accordingly.

k€	4. Other operating income	8. Other operating expenses	9. Operating result from continued operations	13. Other financial result	14. Financial result
Prior year value	36,841	-99,883	260,813	-55,924	-72,144
Reclassification of gains/losses from currency translation	-10,718	13,165	2,447	-2,447	-2,447
Adjusted prior year value	26,123	-86,718	263,260	-58,371	-74,591

In contrast to the prior year, deposits in connection with toll manufacturing are no longer recognized in other current liabilities but in current financial liabilities. The balance sheet figures of the prior year were adjusted accordingly. The opening balance sheet per January 1, 2008 did not require any adjustments as such deposits did not exist in 2007.

k€	C.I. Current financial liabilities	C.V. Other current liabilities
Prior year value	24,137	65,503
Reclassification of liabilities from deposits from toll manufacturers	4,577	-4,577
Adjusted prior year value	28,714	60,926

We would like to also refer to our comments in note 52.

### 7. INTANGIBLE ASSETS

Purchased intangible assets are recognized at cost and – with the exception of goodwill – are subject to regular straight-line amortization, their useful lives ranging between 4 and 15 years. Expenses on research incurred upon generation of intangible assets is immediately recognized as an expense. The same applies as regards development expenses because research and development are iteratively linked and reliable severability therefore does not exist. Permanent impairments are taken into account by extraordinary amortization.

Gains or losses from de-recognition of intangible assets are measured as the difference between the net disposal proceeds and the carrying amount of the asset and recognized through profit or loss in the period in which the asset is de-recognized.

Goodwill – including that from capital consolidation – is subjected to an annual impairment test in accordance with IFRS 3 and IAS 36 and 38. As in prior years, the impairment test per December 31, 2009 again showed that goodwill recognized is not impaired.

For the purpose of the impairment test, the goodwill's carrying amount was assigned to the respective cash-generating unit (Cash Generating Unit, CGU) "Production Germany" which equals the "Production Germany" segment. The reclassification became necessary due to adjustments in the segment structure and follows the Group's strategic alignment, which schedules a fully integrated production with the end product "Solar module".

Prior to and, for lack of devaluation, after the impairment test as well, the carrying amount of the goodwill assigned to the CGU "Production Germany" amounted or amounts to k€ 29,587 (prior year: k€ 29,587).

Recoverable amounts were assessed as fair value less cost to sell. Determination was carried out via discounted cash flow procedures. Cash flow forecasts based on the most up-to-date planning approved by management were used for determining the recoverable amount. The forecasts, in turn, were based on the basic assumptions stated below. Basic assumptions are those that, if subjected to change, make for the highest level of sensitivity as regards the recoverable amount of the CGU.

With regard to the CGU “Production Germany”, the forecasts are based on the following basic assumptions:

- Prices for raw materials (silicon) decreasing in the short and medium term.
- Expansion of manufacturing capacities and increase of volume of wafer production of up to 1,000 MW and module production of up to 450 MW; basis of this assumption is the current plan regarding the expansion of capacities at the Freiberg plant and the market expectations as well as existing supply contracts.
- Annual decrease of the sales’ market prices in a one-digit percentage range; basis of this assumption are relevant third party market surveys.

Cash flow forecasts for the CGU “Production Germany” were derived from the company’s detailed budgeting for a five-year period. For the period beyond that, an extrapolation was performed on the basis of the last detailed forecast year. In doing so, a growth rate of 2.5 per cent (prior year: 2.5 per cent) was assumed in accordance with growth expectations for SOLARWORLD AG taken from long-term external surveys.

For determining the recoverable amount, the future cash flows of the CGU “Production Germany” were discounted using a risk adequate discounting rate after taxes of some 9.1 per cent (prior year: 9.4 per cent). External analysts of SOLARWORLD AG corroborate this interest rate.

## 8. PROPERTY, PLANT AND EQUIPMENT

Property, plant and equipment are measured at cost less regular physical depreciation. Cost comprises all individual expenses directly attributable to the manufacturing process as well as appropriate proportions of the necessary cost of materials and manufacturing overhead. In addition, cost includes depreciation caused by manufacturing and the manufacturing-related pro-rata costs for company retirement benefit plans as well as the voluntary social benefits of the company. Administration costs are considered to the extent to which they can be attributed to manufacturing. Cost also includes – in addition to the purchase price after reduction of discounts, rebates and cash discounts – all directly attributable costs incurred to bring the asset to a location and condition necessary for it to be capable of operating in the manner intended by management.

Borrowing costs that can be directly attributed to acquisition, construction or production of a qualified asset are capitalized as cost of the respective asset if a period of at least one year is required to prepare the asset for its intended use or sale. All other borrowing costs are recognized as an expense in the period in which they are incurred. Borrowing costs are interest and other costs incurred by an enterprise in connection with the borrowing of funds. As a basic rule, the Group capitalizes borrowing costs for all qualifying assets the construction of which was initiated on or after January 1, 2009. Borrowing costs in connection with construction projects that were initiated prior to January 1, 2009 are still capitalized as an expense. In 2009, no qualifying assets were identified. Thus, all borrowing costs were recognized as an expense.

If substantial parts of property, plant and equipment need to be replaced in regular intervals, the Group recognizes these as separate assets with specific useful lives or depreciation. In the event of a major inspection, the Group capitalizes in the carrying amount of the item of property, plant and equipment the cost of replacing part of such an item when that cost is incurred if the recognition criteria are met. All other inspection and maintenance cost is recognized through profit or loss immediately.

The present value of the expected disposal of the asset after use is included in the respective asset's cost if the recognition criteria for a provision are met. Detailed information on the measurement of the provision for building restoration obligations, can be found in note 54.

With respect to own work capitalized in this connection, we refer to note 25.

Useful lives between 15 and 45 years are used as a basis for buildings while buildings and fixtures on leasehold land are depreciated in accordance with the terms of the respective lease agreements or a lesser useful life. Technical equipment and machinery is predominantly assessed with useful lives of up to 10 years. Factory and office equipment is depreciated over a period of 3 to 5 years if subjected to a common level of wear and tear.

In accordance with IAS 36, intangible assets and property, plant and equipment are subject to extraordinary depreciation per balance sheet date if impairment is indicated and if the then performed impairment test shows that the recoverable amount of the asset fell below the carrying amount. Irrespective of such indications, an impairment test is performed annually as regards assets assigned to a goodwill-bearing CGU. Insofar, we refer to note 7 above. No indications for impairment of the other essential assets arose in the course of the business year.

Property, plant and equipment are derecognized either upon retirement or as soon as no further economic benefit is expected from further utilization or disposal of the recognized asset. The profits or losses resulting from derecognizing the asset are determined as the difference between the net sale price and the carrying amount of the asset and are recognized on the income statement through profit or loss in the period in which the asset is derecognized.

Residual amounts, useful lives and depreciation methods of the assets are subject to inspection at the end of each business year and are adjusted prospectively if the need arises.

## 9. INVESTMENTS MEASURED AT EQUITY

The Group's investments in associates are recognized in accordance with the equity method. Furthermore, the Group is utilizing the option in accordance with IAS 31.38 and recognizes its interest in jointly controlled entities (Joint Venture) using the equity method also.

Investments in other companies accounted for using the equity method are recognized on the balance sheet at cost in consideration of changes that occurred after the acquisition date regarding the Group's participation in the investee's equity, of the hidden reserves and burdens recognized at acquisition date as well as of the unrealized proportionate intra-group results from transactions with the investee. The goodwill connected with the investment is included in the carrying amount of the investment and is subject to neither regular amortization nor separate impairment tests.

The consolidated income statement contains in line item "income from investments measured at equity" the Group's share in the profit or loss of the investee including the effects of the development of the disclosed hidden reserves and burdens. This concerns profit allocable to the investors and, thus, profit after tax and minority interests in the investee's subsidiaries. The Group recognizes any changes recognized directly in the investee's equity to the extent of its share also directly in equity. Unrealized intra-group results from transactions between the investee and the Group are also eliminated through the item "result from investments measured at equity" in accordance with the latter's share in the investee.

The financial statements of the associate companies are prepared as per the same balance sheet date as those of the parent. To the extent to which it is necessary, adjustments are made to conform the associates' accounting policies to those of the investor.

After application of the equity method, the Group determines whether it is necessary to recognize any additional impairment loss with respect to the Group's investment. As per each balance sheet date, the Group determines whether there is any evidence indicating that the share in an associate could be impaired. If this is the case, the difference between the recoverable amount of the share in the associate and the carrying amount of the share is recognized in profit or loss.

#### 10. INVENTORIES

Inventories include raw materials and supplies, work in process and finished goods, merchandise and prepayments for inventories. Purchased inventories are recognized at acquisition cost that, depending on the type of inventory, is determined either on the basis of average costs or in accordance with the first-in-first-out (FIFO) method. Inventories of the Group's own making are recognized at production cost. In addition to the individual costs, cost includes adequate proportions of the necessary cost of materials and manufacturing overhead based on regular capacity utilization of the production facilities. Cost also includes depreciation caused by manufacturing which can be directly allocated to the manufacturing process and, to the extent to that they are manufacturing-related, pro-rata expenses for company retirement benefit plans and voluntary social benefits. Administration costs are taken into account to the extent to that they concern manufacturing. Borrowing costs are not taken into account, as inventories do not constitute qualifying assets from the Group's point of view.

Measurement per balance sheet date occurs at the respective lower amount of cost on the one hand side and net realizable value on the other. The latter is the estimated sales proceed of the final good realizable in the normal course of business less estimated costs until completion of the good as well as estimated necessary distribution costs.

Due to the prevailing manufacturing circumstances in both entity and industry, finished goods and merchandise are summarized in the comments on inventories in note 44.

Some of the prepayments recognized in inventories were paid in US dollar. Measurement was carried out at historic rate at payment date because the prepayments are no monetary items in accordance with IAS 21.16. Though these prepayments are stipulated to be non-interest bearing, the circumstances, however, imply that the respective agreements contain a financing component, and therefore an implicit or matched maturity interest rate is compounded.

#### 11. TRADE RECEIVABLES

Trade receivables are accounted for at nominal value. Should doubts exist with regard to the collectability of the debt, the receivables are recognized at the lower realizable value. In part, allowances are made using a contra account. Receivables stated in foreign currencies are accounted for at closing rate. The decision whether an allowance is made via contra account or by directly reducing the carrying amount depends on the probability of the expected loss.

Receivables from construction contracts were accounted for in accordance with the percentage-of-completion-method as set forth by IAS 11.

We refer to our explanations in note 22 and 24.

## 12. OTHER RECEIVABLES AND ASSETS

As a basic principle, other receivables and assets are accounted for at nominal value. Identifiable individual risks and general credit risks are taken into consideration by making corresponding value adjustments.

## 13. OTHER FINANCIAL ASSETS

Financial assets in terms of IAS 39 are either categorized as financial assets “measured at fair value through profit or loss”, “held-to-maturity-investments”, “financial assets available for sale”, “loans and receivables” or derivatives that were designated as hedging instruments and are effective as such. The Group determines the classification of its financial assets upon initial recognition. Upon initial recognition, financial assets are measured at fair value plus transaction costs. Financial assets classified as “measured at fair value through profit or loss” are exempted therefrom, as they are initially recognized at fair value without taking transaction costs into account.

At balance sheet date, no securities categorized as “held-to-maturity investments” exist.

Subsequent measurement of financial assets depends on their categorization.

Securities are “measured at fair value through profit or loss” if they are either designated as such or “held for trading”.

Securities are categorized as “held for trading” if they were acquired with the intention to sell them in the short term. This category also includes the Group’s derivative financial instruments that are not designated as hedging instruments in hedge accounting in terms of IAS 39.

Financial instruments are designated as “measured at fair value through profit or loss” if they are part of a portfolio that is evaluated and managed on the basis of fair values. Acquisition and sale of securities takes place with regard to revenue-optimized liquidity management and is, for the most part, centrally managed by SOLARWORLD AG.

Financial assets “measured at fair value through profit or loss” are recognized at fair value. Each profit or loss resulting from measurement is recognized in the financial result with effect on income. The recognized net gain or loss also includes possible dividends and interest of the financial asset.

The fair value of financial instruments traded in active markets is determined by the market price at balance sheet date without any deduction for transaction costs. The fair value of financial instruments not traded in an active market is determined in application of appropriate measurement methods. For further details on the applied measurement methods, we refer to note 61.

Financial assets categorized as “loans and receivables” are non-derivative financial assets with fixed or identifiable payments that are not listed in an active market. After initial recognition, such financial assets are measured at amortized cost using the effective interest method less possible impairments in value in the scope of subsequent measurement.

Financial assets categorized as “available-for-sale financial assets” are financial instruments intended to be held for an indefinite period, which may be sold as a reaction to liquidity needs or changes of the market environment. After initial recognition, “available-for-sale financial assets” are measured at fair value in the following periods. Unrealized profits or losses are recognized in the AfS-reserve. Upon derecognition of such an asset, the accumulated profit or loss is transferred to be shown on the income statement.

In consideration of IFRIC 14 and IAS 19, SOLARWORLD AG capitalized liability insurances in the remaining other financial assets. These insurances serve as insolvency insurance with regard to early retirement obligations. Recognition is based on the insurance company’s statements regarding the asset value and conducted in the amount in that the insurance value exceeds the amount of the early retirement obligations (plan asset surplus).

**14. LIQUID FUNDS**

Liquid funds include cash and cash equivalents in the form of cash accounts held and current investments made with banks that fall due within three months when acquired. They are categorized as “loans and receivables” and measured at amortized cost less possible impairments in accordance with the effective interest method.

For the purpose of the cash flow statement, cash and cash equivalents include cash-in-hand and current deposits less utilized advances on current accounts.

**15. ASSETS AND LIABILITIES HELD FOR SALE AND DISCONTINUED OPERATIONS**

Individual noncurrent assets, asset groups or assets of discontinued operations are recognized as “assets held for sale” if their carrying amounts are largely realized via sales transactions as opposed to via continued usage and if, additionally, they meet the criteria set forth in IFRS 5. Regular depreciation or amortization on these assets ceases. Impairments are only recognized if the fair value less costs to sell is lower than the carrying amount. Any impairment previously recognized needs to be reversed if the fair value less costs to sell is increased later on. The addition is limited to the impairments previously recognized for the respective assets

Expenses and income from discontinued operations as well as gains and losses from their measurement at fair value less costs to sell are disclosed as the result of discontinued operations on the face of the income statement. Gains and losses from the sale of discontinued operations are also recognized in this line item.

**16. FINANCIAL LIABILITIES AND TRADE PAYABLES**

Upon first-time recognition, financial liabilities are measured at fair value. The transaction costs directly attributable to the acquisition are also recognized with regard to all liabilities that are, subsequently, not measured at fair value through profit or loss.

Financial liabilities measured at fair value through profit or loss in subsequent recognition usually concern derivative financial instruments. We refer to note 17 below.

With respect to subsequent recognition, trade payables and other original financial liabilities, e.g. interest bearing loans, are measured at amortized cost in accordance with the effective interest method. Profits and losses are recognized through profit or loss if the liabilities are derecognized and in the scope of amortization by way of the effective interest method.

Financial guarantee contracts issued by the Group are those contracts that require a payment to be made to reimburse the holder for a loss it incurs because the specified debtor fails to make a payment when due in accordance with the terms of a debt instrument. Financial guarantee contracts are recognized initially as a liability at fair value, adjusted for transaction costs that are directly attributable to the issuance of the guarantee. Subsequently, the liability is measured at the higher of the best estimate of the expenses required to settle the present obligation at the reporting date and the amount recognized less cumulative amortization.

## 17. DERIVATIVE FINANCIAL INSTRUMENTS AND HEDGING

SOLARWORLD Group utilizes derivatives for hedging interest rate risks and changes in foreign currency exchange rates resulting from operating activities, financial transactions and investments.

These financial instruments are measured at fair value through profit or loss and are classified as financial liabilities held for trading if they are acquired for the purpose of selling it in the near term or not designated as hedging instruments in hedging relationships in terms of IAS 39. Profits or losses from financial liabilities held for trading are recognized through profit or loss.

Derivative financial instruments that are not designated as hedging instruments and are effective as such are, on the basis of an assessment of the facts and circumstances, classified as current or noncurrent or split into a current and noncurrent part.

SOLARWORLD Group applies hedge accounting provisions in accordance with IAS 39 for cash flow hedges.

The decisive factor for recognition of changes in fair value – recognition on the income statement through profit or loss or recognition in equity not affecting profit or loss– is whether or not the derivative is included in an effective hedging relationship in accordance with IAS 39. If hedge accounting is not applied, changes of the derivatives' fair values are immediately recognized through profit or loss. If, however, an effective hedge relationship in terms of IAS 39 exists, the hedging relationship as such is accounted for.

At inception of the hedging relationship, the relation between hedged item and hedging instrument including the risk management objectives is documented. In addition, both at inception and in the course of the hedge, documentation is carried out continuously as to whether the designated hedging instrument is highly effective with regard to compensation of cash flow changes in the hedged item.

The effective part of the change in fair value of a derivative or a non-derivative financial instrument designated as a hedging instrument in the scope of a cash flow hedge is recognized in equity. Profit or loss falling upon the ineffective part is immediately recognized through profit or loss in "other financial result".

Amounts recognized in equity are transferred to the income statement in that period in which the hedged item of the cash flow hedge becomes effective through profit or loss. Recognition on the income statement occurs within the same item in which the hedged item is recognized. If, however, a hedged forecast transaction leads to the recognition of a non-financial asset or a non-financial liability, the profits and losses previously recognized in equity are derecognized and taken into consideration at initial determination of cost of the asset or liability.

Hedge accounting is discontinued if the hedging relationship is revoked, the hedging instrument expires or is sold, terminated or exercised or is no longer appropriate for hedging purposes. All profits or losses recognized in equity at this time remain in equity and are only accounted for through profit or loss once the forecast transaction is also recognized on the income statement. If the transaction is no longer expected to occur, the entire profit recognized in equity is immediately transferred to recognition on the income statement.

At initial recognition and in subsequent measurement, derivative financial instruments are recognized at fair value. The recognized fair values of traded derivative financial instruments equal the market prices. Derivative financial instruments that are not subject to trade are calculated using accepted measurement methods based on discounted-cash-flow-analyses and by taking recourse to current market parameters. We refer to note 61.

#### 18. ACCRUED INVESTMENT GRANTS

Investment grants accounted for are accrued in application of IAS 20 and released to income over the course of the useful lives of the respective assets. Thus, the item is allocated to the periods of useful lives of the subsidized property, plant and equipment, and gradually increases future business years' pre-tax income. This increase in income occurs alongside amortization and depreciation expenses of corresponding amounts, which are, therefore, neutralized upon balancing. In addition, tax effects will arise whereas income-increasing reversals of the accrued investment grants occur income tax exempt to the extent to which they result from tax-exempt investment grants.

IAS 20 also applies to income from investment tax credits. Claims for tax credits are recognized if there is reasonable assurance that the material requirements for receipt are met and they are granted. The claims are measured at present value.

#### 19. RETIREMENT BENEFITS

Group retirement benefits predominantly occur via contribution plans. The company pays contributions into a state or private pension fund on the basis of statutory or contractual obligations or on a voluntary basis and, once the contributions are paid, has no further benefit obligations. The annual contributions are recognized as personnel expenses.

One of SOLARWORLD AG's subsidiaries has a defined benefit plan, the insolvency protection of which is effected via the pension security association (Pensionsversicherungsverein). Plan assets do not exist. These pension provisions are measured in accordance with the projected unit credit method for defined benefit plans as required by IAS 19. Actuarial gains and losses are recognized as expenses or income if the net cumulated unrecognized actuarial gains and losses at the end of the prior reporting period exceed 10 per cent of the obligation at this date. The interest proportion included in the pension expenses is recognized in the item "interest and similar expenses".

The amount to be recognized as a liability from a defined benefit plan includes the present value of the defined benefit obligation (using a discounted interest rate on the basis of high quality fixed-interest corporate bonds) less the yet unrecognized past service cost and the yet unrecognized actuarial losses (plus gains).

#### 20. OTHER PROVISIONS

Other provisions are recognized to the extent to which an obligation to third parties exists that will probably make for a future outflow of resources and a reliable estimate can be made of the amount of the obligation. Provisions are measured at the best estimate of the extent of the obligation. Provisions for obligations that will probably not make for an outflow of resources in the year following the reporting year are recognized at present value of the expected outflow of resources. For further details, we refer to note 54.

If a provision cannot be set up because some criteria is not met but the possibility of an outflow of resources embodying economic benefits is all but remote, the respective obligations are recognized as contingent liabilities.



## 21. OTHER LIABILITIES

Accrued liabilities included in the balance sheet item “other liabilities” are recognized for services and goods received and for obligations to employees that do not yet meet the requirements for payment. With regard to these liabilities, future outflow of resources is, on the merits, certain and is merely subject to minor uncertainties as regards the amount. Measurement is conducted at best estimate of the expenditure required.

A proportion of the customer advances recognized in other liabilities is denominated in US dollar. As the customer advances are no monetary items in terms of IAS 21.16, they were recognized at historic exchange rates valid at the date of collection. Though these customer advances are stipulated to be non-interest bearing, the circumstances, however, imply that the respective long-term agreements contain a financing component, and therefore a compounding was conducted at matched maturity or implicit interest rate.

In 2009, in the scope of a “trust agreement for insolvency protection”, payments were made to a trust account in connection with the accrued liabilities for profit-oriented employee compensation. These payments concern obligations from the business years 2008 and before. As these obligations are considered other long-term employee benefits in terms of IAS 19.126 (d), the present value of the obligations at balance sheet date has to be netted with the fair value of the trust account (which is to be regarded a plan asset) in terms of the measurement according to IAS 19.128. Plan assets comprise assets held by a long-term employee benefit fund. Plan assets are not available to the entity’s creditors and cannot be paid directly to the entity. Both current and noncurrent netting was conducted at balance sheet date.

## 22. RECOGNITION OF REVENUE AND EXPENSES

Income is recognized when it is probable that the economic benefit will flow to the Group and the amount of income can be reliably determined. Income is measured at fair value of the received or to be claimed payment less granted (cash) discounts and VAT or other dues.

Revenue from the sale of goods or products is recognized at the time the significant risks and rewards are transferred if – as commonly true – the other requirements (no continued involvement, reliable estimation of the amount of revenue and probability of inflow) are also met.

Revenue from project business is recognized in accordance with the percentage of completion method set forth by IAS 11. Under this method, a pro-rata profit realization is recognized by reference to the stage of contract completion if the assessment of the stage of contract completion, total costs and total revenue of the respective contract can be reliably estimated in terms of IAS 11. The stage of completion is assessed in accordance with the cost-to-cost method pursuant to IAS 11.30 (a). If the stated requirements are met, the overall contract revenue is recognized on a pro-rata basis in compliance with the stage of completion. Contract expenses include the costs directly attributable to the contract and a proportion of overhead.

Advances received in connection with long-term sales contracts for silicon wafers are released through profit or loss once SOLARWORLD Group is no longer obliged to credit against future supplies and does, de facto, not consider crediting.

Grants related to expenses are recognized on an accrual basis through profit corresponding to the occurrence of the respective expenses.

Operating expenses are recognized when goods and services are received or at the time of their occurrence respectively. Provisions for warranties are set up upon realization of the corresponding revenue.

For all financial instruments measured at amortised cost and interest bearing financial assets classified as available-for-sale, interest income or expense is recorded using the effective interest rate, which is the rate that exactly discounts the estimated future cash payments or receipts through the expected life of the financial instrument or a shorter period, where appropriate, to the net carrying amount of the financial asset or liability. Interest income or expenses are recognized on the income statement as part of interest and similar income or interest and similar expenses and recognized on an accrual basis.

## 23. TAXES

**Current taxes on income**

The current tax assets and tax liabilities for the current and earlier periods are measured at the amount that equals the expected refund from or payment to the tax authorities. The calculation of the amount is based on tax rates and tax provisions effective as of balance sheet date in the countries the Group is operating in and generates taxable income.

**Deferred taxes**

Deferred taxes are set up using the liability method for temporary differences between the recognition of an asset or a liability on the balance sheet and its value on the tax balance sheet at balance sheet date.

Deferred tax liabilities are recognized for all taxable temporary differences with the exemption of:

- deferred tax liabilities from the initial recognition of goodwill
- deferred tax liabilities from taxable temporary differences that are related to investments in subsidiaries, associates and interests in joint ventures where the timing of the reversal of the temporary differences can be controlled and it is probable that the temporary differences will not reverse in the foreseeable future.

Deferred tax assets are recognized for all deductible temporary differences, not yet used tax loss carryforwards and not yet used tax credits to the extent to that it is probable that taxable income will be available against which the deductible temporary differences and the not yet used tax loss carryforwards and tax credits can be offset with the exemption of deferred tax assets from deductible temporary differences associated with investments in subsidiaries, associates and interests in joint ventures if it is probable that the temporary differences will not be reversed in the foreseeable future or if no sufficient taxable income will be available to set off against the temporary differences.

The carrying amount of the deferred tax assets is subject to inspection at each balance sheet date and reduced to the extent to that it is no longer probable sufficient taxable income will be available against which the deferred tax asset may be offset at least in part. Deferred tax assets that are not recognized are subject to inspection at each balance sheet date and recognized to the extent to that it became probable that a future taxable income might enable the realization of the deferred tax asset.

Deferred tax assets and liabilities are measured by way of those tax rates that will probably become effective in the course of the period in which the asset is realized or a liability is paid. The tax rates (and tax laws) effective at balance sheet date are used as a basis. Future tax rate changes are taken into account if, in the scope of a legislative procedure, substantial prerequisites for its future applicability are met.

Deferred taxes that concern items that are not recognized on the income statement are recognized directly in equity in correspondence with the transaction they are based on.

Deferred tax assets and deferred tax liabilities are offset if the Group has a legally enforceable right to set off current tax assets against current tax liabilities and these relate to income taxes levied by the same taxation authority.

## VAT

Income, expenses and assets are recognized after VAT is deducted. The following cases are an exemption to this rule:

- If VAT incurred upon the acquisition of assets or the utilization of services cannot be claimed by the taxation authority, the VAT is recognized as part of cost of the asset or part of expenses.
- Receivables and liabilities are recognized with the respective VAT amounts.

The VAT amount to be refunded by or paid to the taxation authority is recognized on the balance sheet in the item “other receivables and assets” or in “other current liabilities”.

## COMMENTS ON THE INDIVIDUAL ITEMS OF THE INCOME STATEMENT

### 24. REVENUE

Revenue and its allocation to the business segments and regions can be taken from segment reporting (note 36) in these consolidated notes. Consolidated revenue consist of the following products and services:

in k€	2009	2008
Module- and assembly kit sales (group and third party manufacturing)	674,377	653,882
Project proceeds	86,132	11,187
Cells/Wafers	247,543	232,615
Other revenue	4,523	2,627
	<b>1,012,575</b>	<b>900,311</b>

Project proceeds basically result from the construction of major solar plants.

As per balance sheet date, projects in process exist whose revenue was accrued in accordance with the percentage of completion method as stated in IAS 11. As of balance sheet date, the following liabilities (prior year: receivables) are disclosed which result from business transactions in 2009 and prior years:

in k€	Dec. 31, 2009	Dec. 31, 2008
Aggregate amount of costs incurred and recognized profits (less recognized losses)	6,246	12,736
Advances received	-6,439	-8,377
	<b>-193</b>	<b>4,359</b>
Receivables from construction contracts (Note 45)	0	4,359
Liabilities from construction contracts (Note 55)	-193	0

Other turnover mainly includes income from silicon processing and power input.

### 25. OWN WORK CAPITALIZED

For one, own work capitalized concerns the construction of photovoltaic plants operated by the Group companies GO!SUN GMBH & CO. KG and SOLAR FACTORY GMBH.

The item also concerns costs of own work directly attributable to bringing new production facilities to the condition necessary for them to be capable of operating.

**26. OTHER OPERATING INCOME**

in k€	2009	2008
Reversal of advances received	25,417	0
Reversal of accrued investment grants	10,461	10,210
Reversal of provisions and liabilities	5,120	1,496
Income from other trade	2,159	2,366
Earnings from grants for research and development	1,813	2,353
Compensation payments	1,147	0
Income from other grants related to expenses	0	6,608
Miscellaneous other operating income	4,536	3,090
	<b>50,653</b>	<b>26,123</b>

Income from the reversal of received customer advances results from the lapse of the obligation to credit advances for wafer supplies against future supplies. k€ 14,319 of the income result from the complete lapse of the obligation with regard to a single customer while an amount of k€ 11,098 results from shortfalls of orders for wafer supplies that were subject to fixed order volumes in 2009.

The reversal of provisions and liabilities mainly result from the out-of-court settlement of legal disputes.

The research and development grants received are subject to a number of requirements. In accordance with what we know today, we will be able to meet all of these requirements. Hence, repayment obligations are not expected to arise.

**27. COST OF MATERIALS**

in k€	2009	2008
Cost of raw materials, supplies and merchandise	597,584	395,540
Cost of purchased services	93,478	58,520
	<b>691,062</b>	<b>454,060</b>

**28. PERSONNEL EXPENSES**

in k€	2009	2008
Wages and salaries	84,361	74,814
Social securities and pensions	15,422	15,316
	<b>99,783</b>	<b>90,130</b>

**29. AMORTIZATION AND DEPRECIATION**

The composition of amortization and depreciation can be taken from the fixed-asset movement schedule.

**30. OTHER OPERATING EXPENSES**

in k€	2009	2008
External staff	19,861	14,900
Maintenance expenses	16,693	13,683
Marketing costs and travel expenses	16,195	9,629
Selling expenses	9,114	8,549
Insurances	5,490	3,945
Expenses from additions to warranty provision	4,340	2,936
Rent and lease expenses	4,284	4,041
Data processing expenses	3,774	2,317
Legal fees, consultancy and audit expenses	3,588	4,032
Research and development costs (third party)	3,183	2,180
Allowances for receivables and uncollectible receivables	2,523	1,024
Sewage and waste disposal	1,699	1,254
Phone, postage, internet	1,303	862
External services	840	570
Relocation expenses	774	125
Expenses from additions to other provisions	412	4,162
Miscellaneous other operating expenses	14,792	12,509
	<b>108,865</b>	<b>86,718</b>

**31. RESEARCH AND DEVELOPMENT**

Research and development costs of SOLARWORLD Group made for a total amount of k€ 11,958 (prior year: k€ 13,024), the largest part of which results from personnel expenses.

**32. FINANCIAL RESULT****a) Result from investments measured at equity**

in k€	2009	2008
Income from investments measured at equity	5,856	1,376
Expenses from investments measured at equity	-10,435	-9,988
	<b>-4,579</b>	<b>-8,612</b>

**b) Interest and similar income**

in k€	2009	2008
Interest income	10,608	24,491
Other financial income	19,236	16,947
	<b>29,844</b>	<b>41,438</b>

Income from interest includes interest from interest-bearing securities, fixed term deposits and other bank balances categorized as “loans and receivables” or “financial assets available for sale”.

Other financial income mainly includes income from the addition of accrued interest from payments made in advance.

#### c) Interest and similar expenses

in k€	2009	2008
Interest expenses	38,671	38,250
Other financial expenses	16,535	10,796
	<b>55,206</b>	<b>49,046</b>

Interest expenses exclusively consist of interest expenses for financial liabilities categorized as “measured at amortized cost”. They mainly result from bank loans, from financial instruments issued by SOLARWORLD AG and from interest-bearing liabilities of SOLARWORLD Group towards its employees in the scope of an internal plan with regard to a profit-oriented employee compensation.

Other financial expenses mainly include expenses from the addition of accrued interest from received customer advances as well as commitment interest.

#### d) Other financial result

in k€	2009	2008
Net gains and losses from		
financial assets designated as at fair value through profit or loss	11,095	-56,221
financial assets held for trading	29	297
	<b>11,124</b>	<b>-55,924</b>
Result from currency translation		
Gains from currency translation	16,062	10,718
Losses from currency translation	-17,299	-13,165
	<b>-1,237</b>	<b>-2,447</b>
	<b>9,887</b>	<b>-58,371</b>

Of the net result of the category “designated at fair value through profit or loss” some € 4m (prior year: € -30m) can be attributed to changes in credit risks.

Derivatives being part of a hedging relationship are not taken into account when it comes to the presentation of net gains and losses. Derivatives that are not accounted for as hedging instruments are included in the measurement category “financial assets held for trading”.

## 33. TAXES ON INCOME

The following chart shows the composition of recognized tax expenses devoid of discontinued operations:

in k€	2009	2008
Actual domestic tax expenses (+)	46,180	56,079
Actual foreign tax expenses (+)	14	759
<b>Total actual tax expenses (+)</b>	<b>46,194</b>	<b>56,838</b>
Deferred domestic tax expenses (+)	6,003	5,038
Deferred foreign tax expenses (+) / income (-)	20,582	-8,454
<b>Total deferred tax expenses (+) / income (-)</b>	<b>26,585</b>	<b>-3,416</b>
<b>Total recognized tax expenses (+)</b>	<b>72,779</b>	<b>53,422</b>

Taxes paid or owed on income in the individual countries as well as deferred taxes are recognized as taxes on income.

The US entities incurred tax losses in the past year as well as in prior years. At first, these were due to restructuring measures and, subsequently, the set up of new manufacturing facilities in Camarillo and a new and enlarged manufacturing facility in Hillsboro. On the basis of the strategic alignment of the Group, the market expectations and the current planning of the US entities, the realization of the deferred tax assets resulting from these losses can still be expected. IAS 12, however, makes great demands when it comes to capitalization of deferred taxes in case of losses in the near past. As the consequences of the financial crisis and the difficult market environment in the photovoltaic sector made for a shortfall regarding the originally expected 2009 result of the US entities, we did not set up any more deferred taxes for the 2009 tax loss carryforwards (potentially k€ 12,633) while we wrote down deferred taxes already set up in the prior year by some k€ 19,814.

With regard to “Federal Tax”, the tax loss carryforwards of the US entities amount to an equivalent of some € 86m. They can be offset with tax profits until at least 2024 and will then gradually be forfeited in the years 2025 and 2029. Deferred tax assets of some € 27m fall upon these loss carryforwards. With regard to “State Tax”, the tax loss carryforwards amount to some € 74m. They can be offset with tax profits until at least 2016. They will then gradually be forfeited in between 2017 and 2019 in amount of € 28m. For the rest, they will gradually be forfeited in between 2022 and 2029. Altogether, deferred taxes of some € 6m fall upon these loss carryforwards.

For the rest, tax loss carryforwards within the Group are marginal.



The following chart shows unbalanced and balanced deferred tax assets and liabilities with regard to accounting differences in the different balance sheet items as well as with regard to tax loss carryforwards:

in k€	Deferred tax assets		Deferred tax liabilities	
	2009	2008	2009	2008
Intangible assets/property, plant and equipment	1,550	1,655	25,609	15,919
Current assets	8,663	3,676	11,053	8,549
Accrued investment grants	5,272	3,745	0	0
Other noncurrent liabilities	3,481	3,750	2,873	6,007
Current liabilities	895	1,227	521	56
Tax loss carryforwards	231	19,967	0	0
	<b>20,092</b>	<b>34,020</b>	<b>40,056</b>	<b>30,531</b>
Offsetting	-14,193	-6,947	-14,193	-6,947
<b>Recognized deferred taxes</b>	<b>5,899</b>	<b>27,073</b>	<b>25,863</b>	<b>23,584</b>

In connection with hedge accounting, deferred tax assets of k€ 349 (prior year: k€ 282) and deferred tax liabilities of k€ 709 (prior year: k€ 4,508) resulting in neither profit nor loss were recognized in equity at balance sheet date.

As in the prior year, no deferred tax liabilities for temporary differences in connection with investments in subsidiaries, associates or joint ventures in accordance with IAS 12.39 were recognized per December 31, 2009. The corresponding temporary differences make for a total of k€ 12,979 (prior year: k€ 13,614).

The substantial differences between nominal and effective tax rates in the course of the business year and the prior year with regard to continued operations are illustrated below:

in k€	2009	2008
Income before taxes	131,752	188,669
Expected income tax rate (incl. trade tax)	30,0%	30,0%
<b>Expected income tax expenses (+)</b>	<b>39,526</b>	<b>56,601</b>
Allowances for existing deferred taxes on loss carryforwards	19,814	0
Not formed deferred taxes on new loss carryforwards	12,916	0
Deviating domestic and foreign tax burden	-1,621	-2,280
Tax reductions due to tax exempt gains	-1,436	-5,227
Taxes from non-deductible expenses	2,778	1,850
Current taxes relating to other periods	1,146	-371
Other tax deviations	-344	2,849
<b>Recognized income tax expenses (+)</b>	<b>72,779</b>	<b>53,422</b>
Effective income tax rate	55.2%	28.3%

#### 34. SUBSTANTIAL EXPENSES AND INCOME RELATING TO OTHER PERIODS

As in the prior year, substantial expenses and income relating to other periods did not exist in the reporting year 2009.

**35. INCOME AFTER TAXES FROM DISCONTINUED OPERATIONS**

The components of the result from discontinued operations separately recognized on the income statement are shown below:

in k€	2009	2008
Profit from disposal of discontinued operations	0	13,686
Income before tax	0	13,686
Allocable income tax expenses	0	-254
<b>Result from discontinued operations after tax</b>	<b>0</b>	<b>13,432</b>

Cash flows attributable to discontinued operations are presented in note 62.

**36. EARNINGS PER SHARE**

Earnings per share are calculated as ratio of the consolidated net income and the weighted average of the number of shares in circulation during the business year. The key figure “diluted earnings per share” was not applicable as option rights or conversion privileges are not outstanding.

**37. SEGMENT REPORTING****a) Segment disclosures**

From January 1, 2009, IFRS 8 “Operating segments” replaces IAS 14 “Segment Reporting”. In application of the “full management approach”, we identified the following four reportable operating segments that replace the former segments “wafer”, “cell”, “module” and “trade”:

- Production Germany,
- Production USA,
- Trade,
- Miscellaneous.

The reason for this is the prevailing internal organization, reporting and steering structure of SOLARWORLD AG that focuses on the end product “solar module” both as regards production and trade. The greater objective of the Group is to increase the existing synergy and efficiency potentials of the entire value chain and, thus, to be able to achieve strategic competitive advantages for the end product “solar module”.

No operating segments were combined for setting up the aforementioned reportable operating segments.

Each of the two production segments combine regionally related and fully integrated manufacturing activities in Germany and the USA and each include the manufacturing areas of the entire value chain.

The operating segment “trade” comprises the worldwide distribution of solar modules.

The segment “other” includes various business activities of the Group that did not materially affect the financial position and financial performance in 2009.

Management separately monitors the EBIT of the operating segments in order to make decisions on the allocation of resources and determine the profitability of the segments.

Transfer prices between the operating segments are determined in accordance with the arm’s length principle.

The following segment revenue and results exclusively concern continued operations. With regard to discontinued operations, we refer to note 35.

The prior year's comparative figures were adjusted to the new segment structure. The measurement methods remained unchanged from the prior year.

#### INFORMATION ON OPERATING SEGMENTS FOR THE BUSINESS YEAR 2009 // IN M€

	Production Germany	Production USA	Trade	Other	Elimination	Consolidated
<b>Revenue</b>						
External revenue	415	39	759	2	-202	
Intersegment revenue	365	179	3	7	-554	
<b>Total revenue</b>	<b>780</b>	<b>218</b>	<b>762</b>	<b>9</b>	<b>-756</b>	<b>1,013</b>
<b>Result</b>						
<b>Operating result (EBIT)</b>	<b>165</b>	<b>-15</b>	<b>10</b>	<b>-1</b>	<b>-7</b>	<b>152</b>
Financial result						-20
Income before taxes on income						132
Taxes on income						-73
Income from continued operations						59
Regular amortization and depreciation	40	22	1	1	0	64
Material non-cash items	25	0	0	0	0	25
<b>Assets</b>						
Intangible assets and property, plant and equipment	441	309	10	36	29	825
Investments in intangible assets and property, plant and equipment	154	112	7	20	0	293

## INFORMATION ON OPERATING SEGMENTS FOR THE BUSINESS YEAR 2008 // IN M€

	Production Germany	Production USA	Trade	Other	Elimination	Consolidated
<b>Revenue</b>						
External revenue	281	1	653	13	-48	
Intersegment revenue	364	152	4	4	-524	
Total revenue	645	153	657	17	-572	900
<b>Result</b>						
Segment result	216	-18	50	7	2	257
Non-operating result						6
Operating result (EBIT)						263
Financial result						-74
Income before taxes on income						189
Taxes on income						-54
Income from continued operations						135
Regular amortization and depreciation	38	16	1	0	0	55
<b>Assets</b>						
Intangible assets and property, plant and equipment	330	230	4	16	29	609
Investments in intangible assets and property, plant and equipment	102	155	2	13	0	272

With respect to external revenue, the elimination column includes eliminations in connection with toll manufacturing, whereas with respect to intersegment revenue, the elimination column includes eliminations in connection with the consolidation of income and expense.

Reconciliation of the balance of the segment results to the Group results is mainly attributable to journal entries in connection with the intra-group profit elimination and to other consolidation entries with effect on profit or loss.

The adjustment of the intangible assets and property, plant and equipment of the individual segments for the purpose of reconciliation to Group assets is due to the capitalization of goodwill in connection with the acquisition of DEUTSCHE SOLAR AG on Group level in 2000.

Revenue of the "other" segment basically comprises the following:

in m€	2009	2008
External project proceeds and module sales	1	13
Research and development (intragroup)	7	4
Proceeds from power input	1	0
	9	17

## b) Disclosures on group level

With respect to the breakdown of revenue in accordance with products, we refer to the information provided in note 24.

In 2009, there is no external customer who makes for more than 10 per cent of the revenue of SOLARWORLD Group.

in m€	Revenue		Intangible assets and property, plant and equipment	
	2009	2008	2009	2008
Germany	716	414	516	379
Rest of Europe	180	294	0	0
Asia	75	108	0	0
USA	33	73	309	230
Others	9	11	0	0
	<b>1,013</b>	<b>900</b>	<b>825</b>	<b>609</b>

## COMMENTS ON THE BALANCE SHEET

## 38. DEVELOPMENT OF INTANGIBLE ASSETS AND PROPERTY, PLANT AND EQUIPMENT

Composition and development of intangible assets and property, plant and equipment can be taken from the following chart:

in k€	Cost			
	As per Jan. 1, 2009	Reclassi- fication	Addition	Disposal
<b>I. Intangible assets</b>				
1. Concessions, industrial property and similar rights and assets, and licenses in such rights and assets	12,267	527	4,246	16
2. Goodwill	34,547	0	250	0
3. Prepayments	116	-221	495	0
	<b>46,930</b>	<b>306</b>	<b>4,991</b>	<b>16</b>
<b>II. Property, plant and equipment</b>				
1. Land and buildings	139,003	53,545	61,876	121
2. Technical equipment and machinery	417,871	75,793	70,049	11,874
3. Other equipment, factory and office equipment	17,415	426	6,253	611
4. Construction in progress and prepayments	165,409	-130,070	150,013	107
	<b>739,698</b>	<b>-306</b>	<b>288,191</b>	<b>12,713</b>
	<b>786,628</b>	<b>0</b>	<b>293,182</b>	<b>12,729</b>

in k€	Cost			
	As per Jan. 1, 2008	Reclassi- fication	Addition	Disposal
<b>I. Intangible assets</b>				
1. Concessions, industrial property and similar rights and assets, and licenses in such rights and assets	10,219	152	1,869	77
2. Goodwill	34,882	0	0	335
3. Prepayments	0	-133	249	0
	<b>45,101</b>	<b>19</b>	<b>2,118</b>	<b>412</b>
<b>II. Property, plant and equipment</b>				
1. Land and buildings	122,190	441	15,846	2,407
2. Technical equipment and machinery	306,943	16,861	106,898	17,736
3. Other equipment, factory and office equipment	14,453	-1,544	4,523	217
4. Construction in progress and prepayments	33,753	-15,777	142,208	22
	<b>477,339</b>	<b>-19</b>	<b>269,475</b>	<b>20,382</b>
	<b>522,440</b>	<b>0</b>	<b>271,593</b>	<b>20,794</b>

		Amortization and depreciation						Carrying amounts	
Currency difference	As per Dec. 31, 2009	As per Jan. 1, 2009	Reclassification	Addition	Disposal	Currency difference	As per Dec. 31, 2009	As per Dec. 31, 2009	As per Dec. 31, 2008
-87	16,937	8,109	1	1,563	16	-40	9,617	7,320	4,158
0	34,797	4,960	0	250	0	0	5,210	29,587	29,587
0	390	0	0	0	0	0	0	390	116
<b>-87</b>	<b>52,124</b>	<b>13,069</b>	<b>1</b>	<b>1,813</b>	<b>16</b>	<b>-40</b>	<b>14,827</b>	<b>37,297</b>	<b>33,861</b>
-3,213	251,090	21,038	86	10,002	0	-374	30,752	220,338	117,965
-5,971	545,868	134,369	-76	48,875	8,789	-984	173,395	372,473	283,502
-227	23,256	8,885	-11	2,969	510	-163	11,170	12,086	8,530
-2,606	182,639	0	0	0	0	0	0	182,639	165,409
<b>-12,017</b>	<b>1,002,853</b>	<b>164,292</b>	<b>-1</b>	<b>61,846</b>	<b>9,299</b>	<b>-1,521</b>	<b>215,317</b>	<b>787,536</b>	<b>575,406</b>
<b>-12,104</b>	<b>1,054,977</b>	<b>177,361</b>	<b>0</b>	<b>63,659</b>	<b>9,315</b>	<b>-1,561</b>	<b>230,144</b>	<b>824,833</b>	<b>609,267</b>

		Amortization and depreciation						Carrying amounts	
Currency difference	As per Dec. 31, 2008	As per Jan. 1, 2008	Reclassification	Addition	Disposal	Currency difference	As per Dec. 31, 2008	As per Dec. 31, 2008	As per Dec. 31, 2007
104	12,267	7,131	0	1,012	73	39	8,109	4,158	3,088
0	34,547	5,295	0	0	335	0	4,960	29,587	29,587
0	116	0	0	0	0	0	0	116	0
<b>104</b>	<b>46,930</b>	<b>12,426</b>	<b>0</b>	<b>1,012</b>	<b>408</b>	<b>39</b>	<b>13,069</b>	<b>33,861</b>	<b>32,675</b>
2,933	139,003	16,598	-1,762	8,257	2,259	204	21,038	117,965	105,592
4,905	417,871	103,100	3,253	43,570	16,024	470	134,369	283,502	203,843
200	17,415	8,039	-1,491	2,327	75	85	8,885	8,530	6,414
5,247	165,409	0	0	0	0	0	0	165,409	33,753
<b>13,285</b>	<b>739,698</b>	<b>127,737</b>	<b>0</b>	<b>54,154</b>	<b>18,358</b>	<b>759</b>	<b>164,292</b>	<b>575,406</b>	<b>349,602</b>
<b>13,389</b>	<b>786,629</b>	<b>140,163</b>	<b>0</b>	<b>55,166</b>	<b>18,766</b>	<b>798</b>	<b>177,361</b>	<b>609,267</b>	<b>382,277</b>

**39. INTANGIBLE ASSETS**

Goodwill recognized in intangible assets results from the acquisition of DEUTSCHE SOLAR AG in 2000. The goodwill is attributed to the Cash Generating Unit (CGU) "Production Germany". We refer to note 7.

**40. PROPERTY, PLANT AND EQUIPMENT**

At balance sheet date, leased property, plant and equipment to be capitalized did not exist.

**41. INVESTMENTS MEASURED AT EQUITY**

in k€	Dec. 31, 2009	Dec. 31, 2008
SolarWorld Korea Ltd.	26,428	4,683
JSSi GmbH	12,318	11,166
Solarparc AG	8,375	8,285
RGS Development B.V.	1,941	1,261
SolarPark M.E. Ltd	1,181	0
Gällivare PhotoVoltaic AB	0	4,564
SolarWorld Solicium GmbH	0	585
	<b>50,243</b>	<b>30,544</b>

The investment in the listed SOLARPAC AG is held via SOLARWORLD AG and concerns a 29 per cent share in assets, result and voting rights. Aside from regenerative power generation, the company's operations include management, project planning, conceptual design and marketing of solar parks and wind power plants. The fair value of the investment in SOLARPAC AG derived from its stock market price amounted to k€ 12.915 (prior year: k€ 8.285) at balance sheet date.

The investment in JSSI GMBH is held via SOLARWORLD AG and concerns a 49 per cent share in the assets and result. Together with EVONIK-Degussa GmbH, the company has developed and produced a manufacturing process for solar silicon on the basis of which it now produces the latter.

DEUTSCHE SOLAR AG holds the investment in RGS DEVELOPMENT B.V. The interest concerns a 35 per cent share in the assets and result. The company's purpose is the joint development of a new process for producing silicon wafers for use in solar cells.

SOLARWORLD AG holds the investment in SOLARWORLD KOREA LTD, which concerns a 76.5 per cent share in the assets and result. The company operates a module plant.

SOLARWORLD AG holds the investment in SOLARPARK M.E. LTD. The interest concerns a 50 per cent share in the assets and result. Until now, the company basically designed and constructed production facilities for module assembly.

The investments in JSSI GMBH, RGS DEVELOPMENT B.V., SOLARPARK M.E. LTD. and SOLARWORLD KOREA LTD. are jointly controlled entities in terms of IAS 31 as all significant decisions regarding business and finance policy can only be made in unison.

We refer to note 64 as regards related party disclosures.



The following chart includes summarized financial information regarding the investments measured at equity:

in k€	Dec. 31, 2009	Dec. 31, 2008
<b>Attributable assets</b>	<b>201,236</b>	<b>62,397</b>
thereof current	144,415	27,022
thereof noncurrent	56,821	35,375
<b>Attributable liabilities</b>	<b>151,826</b>	<b>34,479</b>
thereof current	131,931	10,945
thereof noncurrent	19,895	23,534
<b>Attributable revenue</b>	<b>138,130</b>	<b>26,969</b>
<b>Attributable profit or loss for the year</b>	<b>576</b>	<b>-4,562</b>

#### 42. NON-CURRENT OTHER FINANCIAL ASSETS

The other financial assets mainly include amounts classified as non-current for re-insurances of k€ 849 (prior year: k€ 0) that were accounted for in accordance with IFRIC 14 and IAS 19. The re-insurance contracts were concluded in connection with early retirement obligations and netted with the outstanding wage payments at balance sheet date. The current proportion is recognized in current other financial assets (compare note 48).

#### 43. DEFERRED TAX ASSETS

The development of deferred tax assets is included in the comments on tax expenses (note 33).

#### 44. INVENTORIES

in k€	Dec. 31, 2009	Dec. 31, 2008
Raw materials and supplies	74,485	56,521
Work in progress	61,216	39,156
Finished goods and merchandise	78,164	50,220
Prepayments	384,289	377,869
	<b>598,154</b>	<b>523,766</b>

Finished goods of the Group in terms of the aforesaid itemization only concern photovoltaic modules and wafers of DEUTSCHE SOLAR AG.

In 2009, impairments of inventories in amount of k€ 5,276 have been recognized as expense.

Of the prepayments, a partial amount of k€ 329,647 (prior year: k€ 333,972) will not be due to be set off with raw material supplies for more than 12 months after balance sheet date.

## 45. TRADE RECEIVABLES

in k€	Dec. 31, 2009	Dec. 31, 2008
Trade receivables	211,401	66,860
Receivables from construction contracts	0	4,359
	<b>211,401</b>	<b>71,219</b>

The following chart illustrates the aging structure of the receivables:

in k€	Dec. 31, 2009	Dec. 31, 2008
Neither past due nor impaired	181,280	60,431
Past due but not impaired		
- up to 30 days	10,712	6,528
- between 31 and 60 days	4,458	2,034
- between 61 and 90 days	5,263	234
- between 91 and 180 days	2,945	1,230
- between 181 and 360 days	6,543	737
- exceeding 360 days	200	3
Impaired	0	22
	<b>211,401</b>	<b>71,219</b>

We did not identify any indications requiring valuation allowances for those trade receivables not impaired or allowances did not have to be set up due to existing collaterals. Approximately half of the receivables included in the cluster “between 61 and 90 days” were paid in the course of preparation of the consolidated financial statements. The majority of the receivables included in “between 91 and 360 days” result from wafer sales that mostly originate from long-term agreements. With regard to the respective default risks, we refer to note 61 d).

The following chart illustrates the development of valuation allowances:

in k€	Dec. 31, 2009	Dec. 31, 2008
As per Jan 1	1,239	629
Utilization	-240	-47
Net additions/reversals	1,426	739
Currency translation	52	-82
As per Dec 31	<b>2,477</b>	<b>1,239</b>

## 46. INCOME TAX RECEIVABLES

Tax receivables concern refund claims for corporation and trade tax paid or corresponding foreign taxes due to excessive prepayments and necessary changes to the tax assessment of previous business years.

## 47. OTHER RECEIVABLES AND ASSETS

in k€	Dec. 31, 2009	Dec. 31, 2008
VAT receivables	3,124	5,808
Other prepayments	2,970	103
Deferred items	2,835	1,869
Electricity tax refund	1,718	1,699
Residual receivable sale GPV	0	5,775
Tax credit claims	0	4,822
Others	2,340	1,088
	<b>12,987</b>	<b>21,164</b>

Financial assets included in other receivables and assets are not significantly past due.

## 48. OTHER CURRENT FINANCIAL ASSETS

in k€	Dec. 31, 2009	Dec. 31, 2008
Debt securities and similar investments	56,458	303,569
Money market and similar investments	21,888	89,638
Loans to related parties	3,000	1,796
Derivative financial instruments		
thereof in hedging relationship: k€ 0 (prior year: k€ 6,924)	0	6,924
Other financial assets	256	2,487
	<b>81,602</b>	<b>404,414</b>

With respect to investment strategy, measurement and risks of money market and similar investments, we refer to our financial instrument disclosures in notes 5, 13 and 61.

The remaining financial assets mainly include amounts for re-insurances of k€ 179 (prior year: k€ 1,051) that were accounted for in accordance with IFRIC 14 and IAS 19. We refer to our comments in note 61.

## 49. LIQUID FUNDS

Liquid funds almost entirely concern bank balances. As per balance sheet date, these were invested in – mostly short-term – fixed term deposits and day-to-day money at different banks.

## 50. ASSETS AND LIABILITIES HELD FOR SALE

Property, plant and equipment held for sale in an amount of k€ 836 (prior year: k€ 572) concern several facilities that are no longer employed in the manufacturing or research process and are scheduled for sale in the short run. Impairments and losses of k€ 415 (prior year: k€ 1,332) were recognized with regard to assets held for sale. The remaining amount equals the expected net realizable value and results from market observations with regard to used machinery of this kind. Impairments and losses are recognized in other operating expenses.

## 51. EQUITY

### Subscribed capital

At balance sheet date, the capital stock amounts to € 111,72m (prior year: € 111.72m) and exclusively comprises common stock, a total of 11,720.000 non-par bearer shares.

### Authorized capital

At the shareholders' meeting of May 24, 2006, the Executive Board was authorized to increase – upon approval of the Supervisory Board – the capital stock by a total of € 5,472,500.00 until December 31, 2010.

At the shareholders' meeting of May 24, 2007, the Executive Board was authorized to increase – upon approval of the Supervisory Board – the capital stock by a total of € 20,947,500.00 until December 31, 2011.

At the shareholders' meeting of May 21, 2008, the Executive Board was authorized to increase – upon approval of the Supervisory Board – the capital stock by a total of € 27,930,000 until December 31, 2012.

### Conditional capital

SOLARWORLD AG does not have any conditional capital.

### Own shares

By resolution of the shareholders' meeting of May 20, 2009, the Executive Board was authorized to purchase treasury shares. In accordance with § 71 para. 1 No. 8 AktG, the authorization is subject to a fixed-term and expires per 12 mid-night of November 20, 2010, and is limited to an extent of up to 10 per cent of the capital stock. The earlier authorization for acquisition of treasury shares, granted by resolution of the shareholders' meeting of May 21, 2008, was revoked as of the new authorization taking effect.

### Other reserves

**EXCHANGE RESERVE.** The exchange reserve includes differences arising from currency translation in the course of translating financial statements of foreign subsidiaries.

**HEDGING RESERVE AND AFS-RESERVE.** An amount of k€ 849 (prior year: k€ 9,148) of the reserve are gains and losses from hedging relations that were classified as effective in the scope of cash flow hedges. At balance sheet date, an AFS-reserve no longer exists (prior year: k€ 286). With regard to deferred taxes set off against the hedging reserve, we refer to note 33.

### Dividend suggestion

The Executive Board suggests the distribution of a dividend of € 0.16 per share for the reporting year 2009. The payment of this dividend depends on the approval of the shareholders' meeting in May 2010 and will, if approved by the shareholders, amount to some € 17.9m.

## 52. NONCURRENT AND CURRENT FINANCIAL LIABILITIES

in k€	Dec. 31, 2009	Dec. 31, 2008
Issued assignable note loans	404,569	407,888
Bank loans	227,594	153,401
Issued senior notes (US-Private Placement)	121,720	126,045
Deposits from toll manufacturers	13,589	4,577
Derivative financial instruments thereof in hedging relationship: k€ 10,057 (prior year: k€ 1,100)	12,289	2,407
Bonds	8,978	9,042
Others	760	760
	<b>789,499</b>	<b>704,120</b>

Bank loans are hedged by customary chattel mortgages of property, plant and equipment and inventories as well as by provision of land charges in an amount of € 18.7m (prior year: € 24.3m) that are the respective group companies' responsibility.

Deposits from toll manufacturers are payments received from toll manufacturers at balance sheet date regarding SOLARWORLD products that are to be processed which will only be returned after successful processing.

Other financial liabilities include an amount of k€ 66 (prior year: k€ 42) for a financial guarantee issued by SOLARWORLD AG.

## 53. ACCRUED INVESTMENT GRANTS

The item includes accrued investment subsidies and investment grants as well as accrued tax credits, even to the extent to which they are to be reversed in the course of the following year because they exclusively concern property, plant and equipment.

The investment subsidies and investment grants are subject to a number of requirements. Based on today's knowledge, all of those requirements will be met. Thus, repayment obligations are not expected to arise.

## 54. NONCURRENT AND CURRENT PROVISIONS

in k€	As per Jan. 1, 2009	Utilization	Reversal	Addition	Currency translation	As per Dec. 31, 2009
Warranties	11,484	655	19	4,646	-59	15,397
Pensions	7,912	338	0	421	0	7,995
Building restoration obligations	5,046	496	104	172	-151	4,467
Pending losses from onerous contracts	1,378	600	1	0	-36	741
Other provisions	3,138	1,660	1,045	412	4	849
	<b>28,958</b>	<b>3,749</b>	<b>1,169</b>	<b>5,651</b>	<b>-242</b>	<b>29,449</b>

The provision for warranties is set up for specific individual risks, for the general risk of being called upon in accordance to statutory warranty regulations and performance guarantees granted with regard to photovoltaic modules sold. The provision for the risk of being called upon for performance guarantees is set up in an amount of 0.25 per cent of all of SOLARWORLD Group's module revenue. Due to the noncurrent nature of the provision (performance guarantees are granted for a period of 25 years), it is subject to compounding at matched maturity interest rate. In the business year, this makes for interest expenses of k€ 306 (prior year: k€ 200), which are recognized in other financial expenses in note 32 c).

The provision for building restoration obligations concerns tenant fixtures that have to be removed by SOLARWORLD Group after expiration of the lease term. Due to the noncurrent nature of the provision, it is subject to compounding at matched maturity interest rate. In the reporting year, this makes for interest expenses of k€ 172 (prior year: k€ 171), which are recognized in other financial expenses in note 32 c).

Other provisions include provisions for risks of litigation in an amount of k€ 508 (prior year: k€ 2,555), which concern possible claims from pending legal disputes.

Provisions for pending losses from onerous contracts include expected losses from rental and service agreements.

**Pension provisions**

Pension provisions include promises of retirement benefits to employees of the Group on the basis of direct compensation. The pension claims earned depend on the salary amount at the time of retirement.

The following measurement parameters were uniformly used as a basis for calculating the DBO (defined benefit obligation):

in %	Dec. 31, 2009	Dec. 31, 2008
Discount rate	5.5	5.5
Future salary increase	2.5	2.5
Future pension increase	2.0	2.0

The Heubeck standard tables RT 2005 G were used with regard to mortality and invalidity.

Reconciliation of the DBO with the balance sheet is illustrated below:

in k€	Dec. 31, 2009	Dec. 31, 2008
Present value of funded obligations	7,470	7,407
Unrealized actuarial gains (+)	525	505
<b>Pension provision</b>	<b>7,995</b>	<b>7,912</b>

The following chart illustrates the DBO's development:

in k€	2009	2008
Extent of obligation per Jan 1	7,407	7,419
Interest cost	407	401
Current service cost	14	35
Benefit paid	-338	-267
Curtailments	0	-48
New actuarial gains (-)	-20	-133
<b>Extent of obligation per Dec 31</b>	<b>7,470</b>	<b>7,407</b>

The following DBO-amounts were recognized for defined benefit plans in the current and prior reporting periods:

in k€	2009	2008	2007	2006	2005
Extent of obligation per Dec 31	7,470	7,407	7,419	8,200	0

The unredeemed actuarial gains (+) can be taken from the following chart:

in k€	2009	2008
As per Jan 1	505	404
Additions	20	133
Curtailments	0	-32
<b>As per Dec 31</b>	<b>525</b>	<b>505</b>

## 55. TRADE PAYABLES

in k€	Dec. 31, 2009	Dec. 31, 2008
Trade payables	83,750	70,413
Liabilities from construction contracts	193	0
	<b>83,943</b>	<b>70,413</b>

**56. OTHER NONCURRENT AND CURRENT LIABILITIES**

in k€	Dec. 31, 2009	Dec. 31, 2008
Customer advances	275,965	286,976
Other personnel obligations	14,095	11,880
Outstanding invoices	12,520	7,675
Profit-oriented employee compensation	8,951	34,244
VAT	7,404	5,585
Claimed contributions	938	1,424
Others	9,464	5,627
	<b>329,337</b>	<b>353,411</b>

The decrease of liabilities from profit-oriented employee compensation mainly results from the insolvency protection initially conducted for prior years in 2009, which was netted with corresponding obligations in full (k€ 20,093). The recognized liability now only includes that part of the profit-oriented employee compensation incurred in 2009 and the social security contributions regarding liabilities that originated in earlier periods. We refer to note 21. Interest expenses from interest of the liabilities for profit-oriented employee compensation amounts to k€ 1,758 (prior year: k€ 2,049) and is recognized in interest expenses in note 32 c).

**57. DEFERRED TAX LIABILITIES**

Deferred tax liabilities entirely result from accounting policies for recognition and measurement of assets and liabilities that differ from tax principles. The item's development is included in the comments on tax expenses (note 33).

**58. INCOME TAX LIABILITIES**

The item includes corporation and trade tax assessed by the tax authorities and calculated or estimated by the group companies as well as corresponding foreign taxes resulting from tax laws, including those amounts that will probably result from tax field audits performed.

With regard to potentially generated future taxable profits of SOLARWORLD INDUSTRIES AMERICA LP, SOLARWORLD Group is additionally burdened with German corporation tax plus solidarity surcharge irrespective of American taxation. This might make for future tax payments in a maximum amount of k€ 19,244 (prior year: k€ 19,244) for SOLARWORLD Group. No current or deferred tax liabilities had to be recognized in this respect as these tax payments neither concern the current period or previous periods nor result from temporary differences.



## OTHER COMMENTS

## 59. OTHER FINANCIAL OBLIGATIONS

in m€	Dec. 31, 2009	Dec. 31, 2008
Financial commitments from raw material and licence agreements		
- within one year	343	264
- between 1 and 5 years	1,228	1,307
- more than 5 years	1,046	894
Financial commitments from investments in property, plant and equipment		
- within one year	158	116
- between 1 and 5 years	0	0
- more than 5 years	0	0
Financial obligations from lease agreements concluded for several years		
- within one year	4	3
- between 1 and 5 years	7	9
- more than 5 years	3	5
	<b>2,789</b>	<b>2,598</b>

## 60. CONTINGENCIES AND EVENTS AFTER BALANCE SHEET DATE

A comprehensive presentation of corporate risks and events after the balance sheet date is included in the group management report which, in accordance with German laws and regulations, is to be prepared and published at the same time as these consolidated financial statements. Amongst others, the group management report goes into detail with regard to the expectations for future development of selling prices and the overall market.

## 61. FINANCIAL INSTRUMENTS

## a) Capital management

A comprehensive presentation of the principles and objectives regarding the Group's capital management is included in the group management report that, in accordance with German laws and regulations, is to be prepared and published at the same time as these consolidated financial statements. The details are given in the scope of the group's financial position.

## b) Principles and objectives of financial risk management

With regard to its assets, liabilities and future transactions already set and planned, SOLARWORLD AG as an internationally acting group is exposed to market, liquidity and default risks in the course of its business activities. Objective of financial risk management is the limitation of these risks through the current operating and financial activities.

The Executive Board and the respective subsidiaries agree main features of financial policies on a regular basis. Selected derivative and non-derivative financial instruments are utilized to limit or take risks on a controlled basis, depending on the respective risk assessment, planning ability regarding future transactions and current market situation. As a basic principle, however, only those risks are addressed that have consequences on the Group's cash flow. Implementation of

financial policies as well as risk management is handled by the respective departments, which report to the Executive Board on a regular basis.

Derivative financial instruments are regularly used as hedging instruments but not for trading or speculation purposes. To minimize default risks, hedging agreements are only concluded with leading financial institutions that have a credit rating in the investment grade area.

With regard to the investment of liquid funds, SOLARWORLD Group aims at attaining a rate of return slightly exceeding the money market level. Thus, SOLARWORLD Group basically invests free liquid funds in financial investment products in the form of sight deposits (fixed-term deposits as well as day-to-day money) with financial institutes, investment funds, assignable loans and investment certificates. To limit the risks from changes in market prices, the investments are limited to financial investment products whose risk structure can be allotted to the money or debt securities market. Moreover, central management and broad diversification of the investments with regard to different market risks and debtors works against the establishment of risk concentrations. To minimize default risks, assignable loans and investment certificates are purchased only from leading financial institutions that have a credit rating in the investment grade area.

### **c) Market risks**

With respect to market risks, SOLARWORLD Group is especially prone to risks from the change in currency translation and interest rates.

For the presentation of market risks, IFRS 7 requires sensitivity analyses, which show the consequences of hypothetical changes of relevant risk variables on result and equity. The periodic consequences are determined by showing how the hypothetical changes of the risk variables could have affected the existing financial instruments at balance sheet date. It is therefore assumed on the basis of existing hedging relations that net indebtedness, the relation of fixed and variable interest on liabilities and derivatives and the proportion of foreign currency financial instruments remain unchanged.

Currency risks in terms of IFRS 7 arise on financial instruments that are denominated in a currency different from the functional currency and are of a monetary nature. Currency risk related differences from the translation of financial statements into the Group currency remain unaccounted for. Relevant risk variables are basically all non-functional currencies in which SOLARWORLD Group holds financial instruments.

Interest risks exist both on the borrowing and the deposit side. Thus, analysis of interest risks is carried out on the basis of net debt whereas it is assumed that interest for variably interest-bearing borrowings and deposits change in equal measure. Moreover, only those interest-bearing financial instruments whose interest level depends exclusively on market interest development are included in the analysis. In the prior year, only the borrowing side was included.

#### **Currency risks**

SOLARWORLD Group's currency risks mainly result from financing measures and operating activities. Foreign currency risks are hedged to the extent to which they influence the group's cash flows. On principle, risks that result from the translation of assets and liabilities of foreign subsidiaries into the group reporting currency are not hedged. However, hedging of these risks is not entirely ruled out in the future.

In the financing sector, foreign currency risks result from the issuance of senior notes (US Private Placement) in US dollar that, however, were fully hedged by application of an interest/currency swap.

With regard to operating activities, the individual group companies mostly handle their operations in utilization of the respective functional currency. For the rest, SOLARWORLD Group is increasingly exposed to currency risks. In addition, SOLARWORLD Group is exposed to foreign currency risks in connection with foreign currency transactions already set and planned. These mainly concern transactions in US dollars in connection with long-term contracts for the procurement of raw materials. As in the prior year, no or merely marginal hedging relationships existed for these transactions at balance sheet date.

The significant non-derivative financial instruments aside from, in part, liquid funds, are either denominated in functional currency or are translated into functional currency by way of using derivatives. Hence, exchange rate changes basically influence the result only with regard to the liquid funds denominated in foreign currency. Interest income and expenses from financial instruments are also either directly recognized at functional currency or transferred to functional currency by way of using derivatives. Thus, only irrelevant effects on the result can arise in this regard.

However, upon utilization of hedging instruments that are involved in effective cash flow hedge relationships for hedging currency risks, changes in exchange rates have consequences on the hedging reserve recognized in equity.

If the euro revalues (devalues) towards the US dollar by 10 per cent, this will make for a negative (positive) effect on earnings before tax of k€ 2,579 (prior year: k€ 1,435). If taxes were not taken into account, the hedging reserve would, in the event of a respective revaluation or devaluation, be k€ 1,906 (prior year: k€ 3,017) higher or k€ 1,559 (prior year: k€ 9,457) lower, respectively. With regard to all other currencies, the Group's currency risk is irrelevant.

#### **Interest risks**

On the borrowing side, the Group steers its interest risk via a portfolio of fixed and variably interest-bearing borrowings adjusted to the market environment. For this purpose, SOLARWORLD Group concludes interest rate swaps that are subject to exchanging fixed interest and variable interest-bearing amounts with contract partners. In consideration of existing interest rate swaps, some 84 per cent (prior year: 95 per cent) of the Group's borrowings were subject to fixed interest rates at balance sheet date. Due to the high level of liquidity, SOLARWORLD Group is also subject to interest risks on the deposit side, as uncommitted liquid funds are mostly invested for the short-term.

If the market interest rate increases (decreases) by 50 basis points, the positive (negative) effect on earnings before tax amounted to k€ 1,550 (prior year: k€ 1,997). If taxes were not taken into account, the hedging reserve would, in the event of a respective increase or decrease, be k€ 270 (prior year: k€ 403) higher or k€ 277 (prior year: k€ 273) lower, respectively.

#### **Other price risks**

SOLARWORLD Group owns securities that are subject to various price change risks. The securities are mainly accounted for at fair value. Thus, changes in market prices directly affect profit and loss or equity.

If the market price level of the securities included in the portfolio increased (decreased) by a total of 5 per cent, the positive (negative) effect on earnings before tax would amount to k€ 2,365 (prior year: k€ 3,994) while the AFS reserve would be k€ 252 higher (lower) if taxes were not taken into account.

#### **d) Default risks**

At balance sheet date, SOLARWORLD Group has certificated receivables from financial institutions in a nominal amount of € 50m. The credit ratings of these financial institutions range at Aa1 (source: Moody's). For the rest, SOLARWORLD Group invested most of its free liquidity in sight deposits at German financial institutions. Thus, we estimate that the default risk is rather marginal.

With regard to supplies to non-inner-group customers and depending on type and amount of the respective service, collateral is required, credit ratings/references are collected or historical data from previous business relations – especially as regards payment behavior – is used for avoiding default in payment.

To further limit default risks, receivables from non-inner-group module sales are mostly hedged via credit insurances. Hence, the respective default risk is regarded rather remote.

With respect to receivables from wafer sales that mainly originate from long-term contracts, credit insurances do not exist as these customers have paid extensive advances, which are non-refundable especially in the event of insolvency. Thus, the respective default risk is economically provided for.

For the rest, the maximum default risk equals the carrying amounts.

#### e) Liquidity risks

For SOLARWORLD Group, liquidity risks arise from the obligation to redeem liabilities in full and in due time. It is therefore the task of the cash and liquidity management to assure the individual group companies' liquidity at any time.

Cash management for operating activities is carried out in a decentralized manner within the individual business units. SOLARWORLD AG predominantly balances the respective requirements and surpluses regarding the individual units' means of payment in a centralized way by granting and accepting intra-group loans. Central cash management determines the group-wide financial resources requirements on the basis of business planning. Due to available liquidity and existing credit lines, SOLARWORLD Group is not exposed to significant liquidity risks.

Contracts in connection with borrowed funds in amount of € 697m contain regulations that will grant creditors the right to demand early redemption of the loans if certain financial ratios (covenants) are not met. The respective relevant key data is constantly monitored and reported to the Executive Board. The key data mainly concerns financial ratios regarding the level of indebtedness and equity. In the course of the business year, these ratios were continuously exceeded and there are no indications at hand that suggest they might not be met in the future. In addition, creditors are entitled to request the premature repayment of the loans if a change of control takes place at SOLARWORLD AG. This right is explained in detail in the report on § 315 para. 4 HGB.

The following chart shows the future undiscounted cash flows of financial liabilities that affect the future liquidity status of SOLARWORLD Group.

Interest and redemption payments are taken into account. Interest and redemption payments are based on the contractually stipulated interest and redemption payments. The interest rates last specified prior to December 31, 2009 were used with regard to financial instruments subject to variable rates. As far as cash flows in foreign currency are concerned, the currency rate at balance sheet date is used for the future.

Undiscounted cash flows per Dec 31, 2009 in k€	Total	2010	2011	2012	2013	2014	2015 ff.
Issued assignable loans	526,791	21,371	21,371	21,371	21,371	197,178	244,129
Issued senior notes (US Private Placement)	159,849	7,224	7,224	7,224	84,970	2,645	50,562
respective derivative financial instrument	9,179	-456	-456	-456	6,970	-169	3,746
Bonds	9,386	601	8,785	0	0	0	0
Bank loans	259,055	26,464	46,994	57,687	48,080	77,877	1,953
respective derivative financial instrument	1,999	927	576	352	144	0	0
Derivative financial instruments with no relation to financial liabilities	2,232	2,232	0	0	0	0	0
Trade payables	83,943	83,943	0	0	0	0	0
Other liabilities	9,714	2,888	1,585	4,884	357	0	0
	<b>1,062,148</b>	<b>145,194</b>	<b>86,079</b>	<b>91,062</b>	<b>161,892</b>	<b>277,531</b>	<b>300,390</b>

Undiscounted cash flows per Dec 31, 2008 in k€	Total	2009	2010	2011	2012	2013	2014 ff.
Issued assignable loans	553,136	21,271	21,215	21,222	21,257	21,236	446,935
Issued senior notes (US Private Placement)	172,933	7,478	7,478	7,478	7,478	87,955	55,066
respective derivative financial instrument	2,852	-710	-710	-710	-710	3,984	1,708
Bonds	10,457	605	605	9,247	0	0	0
Bank loans	109,435	33,649	23,669	19,134	17,951	9,391	5,641
respective derivative financial instrument	1,157	452	327	203	124	51	0
Derivative financial instruments with no relation to financial liabilities	1,307	1,307	0	0	0	0	0
Trade payables	70,413	70,413	0	0	0	0	0
Other liabilities	39,432	11,946	5,237	13,243	8,632	374	0
	<b>961,122</b>	<b>146,411</b>	<b>57,821</b>	<b>69,817</b>	<b>54,732</b>	<b>122,991</b>	<b>509,350</b>

ð Fair values, carrying amounts and residual terms of financial instruments by categories

The following chart shows the fair values and carrying amounts of the financial assets and financial liabilities included in the individual balance sheet items:

Assets Dec. 31, 2009		Measurement category IAS 39		
in k€		Designated as at fair value through profit or loss	Loans and receivables	Available for sale
Trade receivables			211,401	
Other receivables and assets			169	
Other financial assets		47,396	28,928	5,022
Liquid funds			428,089	
		47,396	668,587	5,022

Assets Dec. 31, 2008		Measurement category IAS 39		
in k€		Designated as at fair value through profit or loss	Loans and receivables	Available for sale
Trade receivables			71,219	
Other receivables and assets			6,042	
Other financial assets		79,884	246,905	69,650
Liquid funds			431,689	
		79,884	755,855	69,650

Liabilities Dec. 31, 2009		Measurement category IAS 39		
in k€		Financial liabilities recognized at amortized cost	Held for trading	Derivatives in hedging relations
Financial liabilities		777,210	2,232	10,057
Trade payables		83,943		
Other liabilities		8,951		
		870,104	2,232	10,057

Liabilities Dec. 31, 2008		Measurement category IAS 39		
in k€		Financial liabilities recognized at amortized cost	Held for trading	Derivatives in hedging relations
Financial liabilities		701,713	1,307	1,100
Trade payables		70,413		
Other liabilities		29,667		
		801,793	1,307	1,100

Derivatives in hedging relations	Total carrying amounts	Total fair value	IFRS 7 not applicable	Total carrying amounts
	211,401	211,401		211,401
	169	169	12,818	12,987
0	81,346	84,046	1,105	82,451
	428,089	428,089		428,089
0	721,005	723,705	13,923	734,928

Derivatives in hedging relations	Total carrying amounts	Total fair value	IFRS 7 not applicable	Total carrying amounts
	71,219	71,219		71,219
	6,042	6,042	15,122	21,164
6,924	403,363	402,921	1,051	404,414
	431,689	431,689		431,689
6,924	912,313	911,871	16,173	928,486

Total carrying amounts	Total fair value	IFRS 7 not applicable	Total carrying amounts	Term to maturity		
				up to 1 year	between 1 and 5 years	exceeding 5 years
789,499	804,746		789,499	38,915	485,289	265,295
83,943	83,943		83,943	83,943		
8,951	8,951	320,386	329,337	78,675	141,899	108,763
882,393	897,640	320,386	1,202,779	201,533	627,188	374,058

Total carrying amounts	Total fair value	IFRS 7 not applicable	Total carrying amounts	Term to maturity		
				up to 1 year	between 1 and 5 years	exceeding 5 years
704,120	716,755		704,120	28,714	48,078	627,328
70,413	70,413		70,413	70,413		
29,667	29,667	323,744	353,411	60,926	183,899	108,586
804,200	816,835	323,744	1,127,944	160,053	231,977	735,914

Trade receivables include receivables from construction contracts in an amount of k€ 0 (prior year: k€ 4,359). Trade payables include payables from construction contracts in amount of k€ 193 (prior year: k€ 0).

The fair value of financial assets and financial liabilities needs to be presented in the amount that could be generated if the respective instrument were exchanged in the scope of a current transaction (with the exception of forced sale or liquidation) between business partners willing to contract. The methods and assumptions used for determining fair values are:

- For the most part, trade receivables, other receivables and assets, liquid funds, trade liabilities and the material proportion of the remaining liabilities in terms of IFRS 7 are subject to short residual terms. Thus, their carrying amounts at balance sheet date approximately equal fair value.
- Other liabilities include financial obligations to employees resulting from a programme regarding the profit-oriented employee compensation. The liabilities are subject to variable interest rates. Thus, the fair value at balance sheet date equals the carrying amount.
- The fair value of other financial assets is determined on the basis of stock market prices on active markets if available.
- The fair value of unlisted other financial assets is estimated in application of appropriate measurement methods.
- Other financial assets include shares in an investment fund that are classified as designated as at fair value. For this fund, payment of the return value as well as its determination and announcement at balance sheet date and until the date of preparation are momentarily broken off. At preparation date, there was no active market for most of the securities included in the fund portfolio either. In addition, no valid market data was available for measuring the fund shares in application of the discounted-cash flow method. The fair value of this fund is therefore based on an indicative measurement determined by the fund management company. This measurement in turn is based on the individual prices determined by the lead managers of the respective securities included in the portfolio, individual prices by third parties (brokers) and accepted model calculations. For validation of this value, we fell back on the development of a comparable fund for which return prices exist. We also acknowledged the development of the indicative value of the fund management company after balance sheet date. In consideration of these analyses, the fund shares were measured at k€ 21,888 (prior year: k€ 23,238) at balance sheet date. This equals the indicative measurement of the fund management company. The reduction of the carrying amount exclusively results from the distribution of earnings in amount of k€ 6,006 in 2009.
- The fair value of unlisted debt securities, bonds and bank loans is estimated in accordance with discounting of future cash flows in application of interest rates for borrowings currently comparable in condition, credit risk and residual terms. A credit spread of 220 (prior year: 200) basis points was continuously assumed with regard to SOLARWORLD AG's credit risk.
- The fair value of derivative financial instruments with existing observable input parameters on the market is estimated by discounting future cash flows in application of these input parameters. The used input parameters concern yield curves and spot and forward exchange rates. All but one derivative financial instrument were measured in application of this measurement method.
- Financial liabilities include a derivative financial instrument that entitles our joint venture partner to acquire 26.5 per cent of shares in SolarWorld Korea Ltd. at a fixed price (call option). This derivative was measured on the basis of the entity's measurement in the scope of a capital increase conducted in July 2009 and in consideration of significant changes in value from this date on. The option has been executed on February 11, 2010.

Financial instruments accounted for at fair value per balance sheet date follow the following hierarchy for determining and recognizing fair values of financial instruments:

Stage 1: Listed (unadjusted) prices on active markets for similar assets or liabilities.



Stage 2: Processes in which all input parameters significantly affecting the recognized fair value are directly or indirectly observable.

Stage 3: Processes using input parameters that significantly affect the recognized fair value and are not based on observable market data.

in k€	Total Dec. 31, 2009	Stage 1	Stage 2	Stage 3
Financial assets measured at fair value				
designated as such	47,396	0	25,508	21,888
available for sale	5,022	5,022	0	0
Financial liabilities measured at fair value				
held for trading	-2,232	0	0	-2,232
derivatives in hedging relations	-10,057	0	-10,057	0
	<b>40,129</b>	<b>5,022</b>	<b>15,451</b>	<b>19,656</b>

The following chart shows the development of financial instruments included in stage 3 over the course of the business year:

in k€	2009
As per Jan 1	24,538
Gains recognized in other financial result	6,161
Disposal	-5,037
Distribution	-6,006
<b>As per Dec 31</b>	<b>19,656</b>

The financial instruments still held at balance sheet date, which were assigned to stage 3, make for a profit of k€ 2,423 in 2009. This profit is included in the other financial result.

#### g) Net gains and losses by measurement category

Net gains and losses of the measurement categories “financial assets designated as at fair value through profit or loss” and “financial assets held for trading” can be taken from other financial result in note 32. In addition to results from fair value measurement, they also include interest, dividend and currency effects.

In addition to losses from exchange effects mentioned below, net gains and losses of the measurement category “loans and receivables” mainly contain allowances in an amount of k€ 2,523 (prior year: k€ 1,024). The latter are included in other operating expenses.

With respect to the measurement categories “loans and receivables” and “financial liabilities measured at amortized cost”, net gains and losses also include losses from currency effects, which were not allocated to the individual categories for reasons because of cost and benefit consideration. The balance made for losses from currency effects in an amount of k€ 1,237 (prior year: k€ 2,447) in the business year. These are recognized in other financial result.

In addition to part of the mentioned losses from currency effects, gains from repayment of financial liabilities in an amount of k€ 1,429 were to be considered in the prior year’s net results of “financial liabilities measured at amortized cost”. These were included in other financial income.

Thus, net losses from the measurement categories “loans and receivables” and “financial liabilities measured at amortized cost” in total amount to k€ 3,760 (prior year: k€ 2,042).

Aside from interest income of k€ 27 (prior year: k€ 409) recognized through profit or loss, no AFS reserve additions (prior year: k€ 286) were recognized in the financial year with regard to “financial assets available for sale”.

#### h) Hedging

SOLARWORLD Group concluded an interest rate swap (“static pay – variable receipt”) with a current nominal volume of k€ 29,000 (prior year: k€ 40,000) for hedging the cash flow risk of a variable interest loan, the term of the swap expiring at the end of 2013. The variable interest bank loan was designated hedged item. This hedging is aimed at transforming the variable interest bank loan in fixed interest financial liabilities. The fair value of the interest rate swap amounts to k€ -1,168 (prior year: k€ - 1,100) at balance sheet date.

For hedging existing currency risks from senior notes denominated in US dollar, SOLARWORLD Group has five cross currency swaps (“static pay in € – static receipt of USD”), the nominal volume of which amounts to a total of kUSD 175,000. The senior notes denominated in US dollar were designated hedged items. The hedging is aimed at transforming the US dollar liabilities regarding the nominal amount as well as the open interest payments to financial liabilities in €. The fair values of the swaps amounted to a total of k€ -8,889 (prior year: k€ 6,924) at balance sheet date.

Proof of prospective effectiveness is provided by way of the critical terms match method. The retrospective effectiveness is regularly provided by means of the hypothetical derivative method. The results of the retrospective effectiveness tests ranged within a scope of 80 to 125 per cent. Thus, effective hedging can be assumed. An unrealized gain of k€ 849 (prior year: k€ 9,148) was therefore recognized in equity per balance sheet date.

## 62. COMMENTS ON THE CASH FLOW STATEMENT

### Cash flow from discontinued operations

The cash flow statement shows cash flows including those of discontinued operations. The following cash flow proportions fall upon discontinued operations:

in k€	2009	2008
Cash flow from operating activities	0	0
Cash flow from investment activities	5,775	12,996
Cash flow from financing activities	0	0
Net changes in cash and cash equivalents	5,775	12,996

### Cash flow from operating activities

Cash flow from operating activities was prepared in accordance with the indirect method. At first, the pretax result used as a starting point is adjusted by significant earnings and expenses that are not cash-effective. This makes for the cash flow from operating result. Cash flow from operating result and changes in net assets takes the changes of net current assets into account.

The non-cash income of the business year recognized in the cash flow statement concerns income from the reversal of advances received. We refer to our comments in note 26. The non-cash income of the prior year concerns the gains from disposing of discontinued operations. This resulted from the sale of 65 per cent of the former subsidiary GPV.

Customer advances and prepayments particularly concern noncurrent selling agreements regarding silicon wafers and noncurrent purchase agreements regarding elemental silicon concluded in a timely connection. The following chart illustrates the cash inflows and outflows resulting therefrom:

in k€	2009	2008
Increase (+) / decrease (-) in customer advances	5,371	108,425
Increase (-) / decrease (+) in prepayments	4,777	-119,215
<b>Changes in cash flow</b>	<b>10,148</b>	<b>-10,790</b>

Interest paid and interest received are included in cash flow from financing activities and cash flow from operating activities, respectively.

#### Cash flow from investing activities

Cash flow from investing activities includes payments for asset investments as well as investment grants received for this purpose. In addition, the item contains in- and outflowing payments in connection with financial investments and cash inflows from the payment of the remaining purchase price of shares in the subsidiary GPV (compare above). Due to the acquisition of 50 per cent of the shares in SOLARWORLD SOLICIUM GMBH and in consideration of the purchase price paid, SOLARWORLD Group received k€ 110 in liquid funds.

#### Cash flow from financing activities

Cash flow from financing activities takes into account the increased financial debts. Dividend distributions to the shareholders of SOLARWORLD AG are included as payments. Lastly, interest paid is shown as part of the cash flow from financing activities.

#### Cash and cash equivalents

Cash and cash equivalents comprise the balance of the liquid funds recognized on the balance sheet in an amount of k€ 428,089 (prior year: k€ 431,689) and of the liabilities due on a daily basis recognized in the item current financial liabilities in an amount of k€ 0 (prior year: k€ 8,335). This takes into account k€ 111 (prior year: k€ 0) due to the initial consolidation of SOLARWORLD SOLICIUM GMBH in terms of scope of consolidation-related changes in cash and cash equivalents.

### 63. CONTINGENT LIABILITIES

SOLARWORLD AG issued an absolute guarantee in an amount of k€ 12,667 for SOLARPARC AG to Deutsche Bank AG.

### 64. RELATED PARTY DISCLOSURES

In the reporting year 2009, the following material transactions involving related parties were carried out:

Administration and commercial property in Bonn was leased from members of the Asbeck family, the annual rent amounting to € 1m (prior year: € 0.6m). SOLARWORLD AG recognized liabilities of k€ 30 (prior year: k€ 30) at balance sheet date. Module deliveries and other services in an amount of k€ 145 (prior year: k€ 391) were rendered to Frank H. Asbeck, k€ 129 (prior year: k€ 391) of which were still unsettled at balance sheet date.

With regard to Solarparc Vilshofen GmbH residual receivables in amount of k€ 100 (prior year: € 4.8m) exist as of balance sheet date resulting from security deposits. In January 2009, the company had been sold by SOLARPARC AG to Solar Holding Beteiligungsgesellschaft mbH of which Frank H. Asbeck holds the majority of the shares.

In the course of the reporting year, module deliveries and project services in an amount of € 97.1m were rendered to SOLARPARC Group (prior year: € 4m to Solarparc Vilshofen GmbH), € 95.8m (prior year: € 5.5m, thereof € 4.8m due from Solarparc Vilshofen GmbH) of which were still unsettled at balance sheet date because the largest part was brought to account only in the fourth quarter 2009. In addition, SOLARWORLD Group received management and planning services in an amount of k€ 273 (prior year: k€ 203) from SOLARPARC AG. At balance sheet date, k€ 6 (prior year: k€ 0) of these were still unsettled. Furthermore, SOLARWORLD Group rendered services to SOLARPARC Group in an amount of k€ 37 (prior year: k€ 9), k€ 1 (prior year: k€ 0) of which were still unsettled at balance sheet date.

For interim financing of a project, SOLARWORLD AG issued an absolute guarantee in an amount of k€ 12,667 (prior year: k€ 12,667) for SOLARPARC AG to Deutsche Bank AG for which it received k€ 128 (prior year: k€ 108) in commission in 2009. In addition, SOLARWORLD AG gave out loans in a total amount of € 6m to SOLARPARC AG in 2009, € 3m of which were still unsettled at December 31, 2009. In this connection, interest income of k€ 61 (prior year: k€ 218) accrued.

SOLARWORLD AG had given out a short-term loan to a joint venture in 2008, which was fully redeemed at balance sheet date (prior year: k€ 1,796) and made for interest income of k€ 111 (prior year: k€ 10) in 2009.

SOLARWORLD Group sold or rendered goods, fixed assets, toll manufacturing services and other services of k€ 11,023 (prior year: k€ 4,761) to joint ventures. Receivables from these transactions amount to k€ 2,398 (prior year: k€ 1,138) at balance sheet date.

Goods, fixed assets, toll manufacturing services and other services in a total amount of k€ 76,554 (prior year: k€ 6,173) were purchased from joint ventures. In consideration of the accounting for supply and purchase agreements that economically constitute toll manufacturing relationships (compare note 5), total liabilities amount to k€ 8,815 (prior year: k€ 343) and advances paid of k€ 955 (prior year: k€ 11,400) at balance sheet date. With regard to civil law, total liabilities and receivables amount to k€ 18,885 (prior year: k€ 343) and k€ 16,194 (prior year: k€ 0) at balance sheet date, respectively. Furthermore, civil law claims from advances paid of k€ 15,165 (prior year: k€ 11,400) are still outstanding.

Deposit obligations with regard to a jointly controlled entity make for liabilities of € 1m (prior year: € 1.4m).

The law firm Schmitz Knoth Rechtsanwälte, Bonn, – a party related to the Chairman of the Supervisory Board, Dr. Claus Recktenwald, in terms of IAS 24 – is concerned with SOLARWORLD Group's legal issues. Upon approval of the Supervisory Board, a total fee amount of € 0.7m (prior year: € 0.6m) was rewarded for these services in 2009.

Remuneration of the members of the Executive Board is presented note 66 or in the remuneration report, which is part of the management report.

All transactions were handled in compliance with the arm's length principle.

## 65. EMPLOYEES

The average number of employees amounted to 1,858 (prior year: 1,591) and falls upon the company's areas of operation or segments as follows:

Headcount	2009	2008
Production Germany	1,007	879
Production USA	603	507
Trade	187	155
Others	61	50
	<b>1,858</b>	<b>1,591</b>

Per December 31, 2009, the number of employees amounted to 2,000 (prior year: 1,825), including 86 trainees (prior year: 83).

**66. EXECUTIVE BOARD AND SUPERVISORY BOARD**

For assuming their duties in both parent company and subsidiaries in 2009, the members of the Executive Board received a total remuneration of k€ 2,719 (prior year: k€ 2,704), which includes variable remuneration of k€ 1,882 (prior year: k€ 1,850).

For assuming their duties in both parent company and subsidiaries in 2009, the members of the Advisory Board received remuneration including reimbursements in a total amount of k€ 297 (prior year: k€ 293), each plus statutory VAT. The total includes variable remuneration of net k€ 119 (prior year: k€ 114).

Individualized disclosures regarding the remuneration of the Executive Board are included in the company's management report.

As in the prior year, the Executive Board members are:

- Dipl.-Ing. Frank H. Asbeck (Chairman)
- Dipl.-Ing. Boris Klebensberger (Operations)
- Dipl.-Kfm. tech. Philipp Koecke (Finance)
- Dipl.-Wirtschaftsing. Frank Henn (Sales)

At balance sheet date, the Chairman of the Executive Board, Frank H. Asbeck, directly and indirectly held 25 per cent (prior year: 25 per cent) of the shares in SOLARWORLD AG.

As in the prior year, members of the Supervisory Board are:

- Dr. Claus Recktenwald (Chairman), attorney-at-law and partner in the law firm Schmitz Knoth Rechtsanwälte, Bonn
- Dr. Georg Gansen (Deputy Chairman), attorney-at-law/Corporate Legal Counsel at Deutsche Post AG, Bonn
- Dr. Alexander von Bossel, LL.M (Edinb.); attorney-at-law and partner in the law firm CMS Hasche Sigle, Cologne

Frank H. Asbeck, Chairman of the Executive Board, is Chairman of the Supervisory Board of DEUTSCHE SOLAR AG as well as of SUNICON AG.

Dr. Claus Recktenwald, Chairman of the Supervisory Board, is Chairman of the Supervisory Board of SOLARPARC AG, Vice-Chairman of the Supervisory Board of DEUTSCHE SOLAR AG, Vice-Chairman of the Supervisory Board of SUNICON AG, member of the Supervisory Board of VEMAG Verlags- und Medien Aktiengesellschaft, Cologne, member of the Supervisory Board of Wanderer-Werke AG, Augsburg (until November 2009) as well as member of the Advisory Board of Grünenthal GmbH, Aachen (since January 2010).

Dr. Georg Gansen, Vice-Chairman of the Supervisory Board, is also the Vice-Chairman of the Supervisory Boards of SOLARPARC AG, DEUTSCHE SOLAR AG and SUNICON AG.

Dr. Alexander von Bossel, member of the Supervisory Board, is also a member of the Supervisory Board of SOLARPARC AG.

**67. AUDITOR'S FEES**

In 2009, total fees for the auditor of the consolidated financial statements, BDO Deutsche Warentreuhand AG Wirtschaftsprüfungsgesellschaft, Hamburg/Bonn, including reimbursement of costs, amount to:

- a) Year-end audits k€ 563 (prior year: k€ 500)
- b) Other certification and valuation services k€ 6 (prior year: k€ 11)
- c) Tax consultancy services k€ 2 (prior year: k€ 13)
- d) Other services k€ 117 (prior year k€ 4)

68. CORPORATE GOVERNANCE

On November 24, 2009 and December 14, 2009, Supervisory Board and Executive Board, respectively, issued the statement required by §161 AktG, stating that the recommendations of the “Regierungskommission Deutscher Corporate Governance Kodex” (“Government Commission German Corporate Governance Code”) as announced by the Federal Ministry of Justice were and are complied with. The statement is published on SOLARWORLD AG’s website [\[7\] www.solarworld.de/investorrelations/compliancedeclaration//](http://www.solarworld.de/investorrelations/compliancedeclaration//)

Bonn, 12 March 2010



*Dipl.-Ing. Frank H. Asbeck*  
Chairman of the Board



*Dipl.-Wirtschaftsing. Frank Henn*  
Executive Board member/Sales



*Dipl.-Kfm. tech. Philipp Koecke*  
Executive Board member/Finance



*Dipl.-Ing. Boris Klebensberger*  
Executive Board member/Operations

## AUDITOR'S REPORT

We have audited the consolidated financial statements prepared by the SOLARWORLD AG, Bonn, comprising the balance sheet, the income statement, the statement of comprehensive income, statement of changes in equity, statement of cash flows and the notes to the consolidated financial statements, together with the group management report for the business year from January 1, 2009 to December 31, 2009. The preparation of the consolidated financial statements and the group management report in accordance with IFRSs as adopted by the EU, and the additional requirements of German commercial law pursuant to sec. 315a para. 1 HGB are the responsibility of the parent company's management. Our responsibility is to express an opinion on the consolidated financial statements and on the group management report based on our audit.

We conducted our audit of the consolidated financial statements in accordance with sec. 317 HGB and German generally accepted standards for the audit of financial statements promulgated by the Institut der Wirtschaftsprüfer [Institute of Public Auditors in Germany] (IDW). Those standards require that we plan and perform the audit such that misstatements materially affecting the presentation of the net assets, financial position and results of operations in the consolidated financial statements in accordance with the applicable financial reporting framework and in the group management report are detected with reasonable assurance. Knowledge of the business activities and the economic and legal environment of the group and expectations as to possible misstatements are taken into account in the determination of audit procedures. The effectiveness of the accounting-related internal control system and the evidence supporting the disclosures in the consolidated financial statements and the group management report are examined primarily on a test basis within the framework of the audit. The audit includes assessing the annual financial statements of those entities included in consolidation, the determination of entities to be included in consolidation, the accounting and consolidation principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements and the group management report. We believe that our audit provides a reasonable basis for our opinion.

Our audit has not led to any reservations.

In our opinion, based on the findings of our audit, the consolidated financial statements comply with IFRSs as adopted by the EU, the additional requirements of German commercial law pursuant to sec. 315a para. 1 HGB and give a true and fair view of the net assets, financial position and results of operations of the group in accordance with these requirements. The group management report is consistent with the consolidated financial statements and as a whole provides a suitable view of the group's position and suitably presents the opportunities and risks of future development.

Bonn, 12 March 2010

BDO Deutsche Warentreuhand  
Aktiengesellschaft  
Wirtschaftsprüfungsgesellschaft



Dr. Gorny  
German Public Auditor



ppa. Ahrend  
German Public Auditor

## RESPONSIBLY STATEMENT

To the best of our knowledge, and in accordance with the applicable reporting principles, the consolidated financial statements give a true and fair view of the assets, liabilities, financial position and profit or loss of the group, and the group management report includes a fair review of the development and performance of the business and the position of the group, together with a description of the principal opportunities and risks associated with the expected development of the group.

Bonn, 12 March 2010

SOLARWORLD AG  
Board of Management



*Dipl.-Ing. Frank H. Asbeck*  
Chairman of the Board



*Dipl.-Wirtschaftsing. Frank Henn*  
Executive Board member/Sales



*Dipl.-Kfm. tech. Philipp Koecke*  
Executive Board member/Finance



*Dipl.-Ing. Boris Klebensberger*  
Executive Board member/Operations



# REPORT ON SUSTAINABLE CORPORATE MANAGEMENT

---

213	LETTER FROM THE CHAIRMAN
215	SUSTAINABILITY: ANNEX TO THE ANNUAL GROUP REPORT FOR FISCAL YEAR 2009
216	DISCLOSURE (GLOBAL REPORTING INITIATIVE, GLOBAL COMPACT, DVFA)
224	STRATEGY AND MANAGEMENT
242	PERFORMANCE INDICATORS
258	CONFIRMATION FOR THE REPORT ON SUSTAINABLE CORPORATE MANAGEMENT OF SOLARWORLD AG FOR CALENDAR YEAR 2009

---

➔ Cf. to text passage • page//  
Ⓜ Cf. to to chart • page//  
🌐 [www.internetlink.com](http://www.internetlink.com)  
📍 Cf. to sustainability index • page//  
📍 Cf. to solar World Map • Insert//  
Cf. to glossary<sup>9</sup>

# CONTENT

## REPORT ON SUSTAINABLE CORPORATE MANAGEMENT

### 213 LETTER FROM THE CHAIRMAN

### 215 SUSTAINABILITY:

#### ANNEX TO THE ANNUAL GROUP REPORT FOR FISCAL YEAR 2009

215	FACTS: SUSTAINABILITY
215	FACTS: SOLARWORLD SETS STANDARDS
216	DISCLOSURE (GLOBAL REPORTING INITIATIVE, GLOBAL COMPACT, DVFA)
216	GLOBAL REPORTING INITIATIVE (CATEGORISATION AND INDEX)
216	GLOBAL COMPACT (PROGRESS REPORT)
219	KPI'S FOR ESG (KEY PERFORMANCE INDICATORS, DVFA)
224	STRATEGY AND MANAGEMENT
224	THE POTENTIAL: ENERGY CREATES THE BASIS FOR DEVELOPMENT
227	MATERIALITY MATRIX
228	REPORTING BOUNDARY
235	STAKEHOLDERS
242	PERFORMANCE INDICATORS
242	ECONOMIC PERFORMANCE INDICATORS
244	ECOLOGICAL PERFORMANCE INDICATORS
246	FACTS: POSITIVE CO <sub>2e0</sub> -BALANCE
246	CLIMATE PROTECTION
249	SOCIAL PERFORMANCE INDICATORS
258	CONFIRMATION FOR THE REPORT ON SUSTAINABLE CORPORATE MANAGEMENT OF SOLARWORLD AG FOR CALENDAR YEAR 2009





*Dipl.-Ing. Frank H. Asbeck*  
*CEO of SolarWorld AG*

## Letter by the Chairman

**Dear Customers, Shareholders, Employees and Friends of SolarWorld AG,**

As an international group we have long attached particular importance to sustainable management. Indeed, it is a fundamental SOLARWORLD principle, which is why we have been incorporating the reporting on our sustainability performance into our Group Annual Reports since 2007. It seems only logical, therefore, that we have fully integrated the concept of sustainability into our strategic decision-making.

➔ [\*Group management report • p. 031//\*](#)

But why is it so important to consider sustainable management in such detail, and what makes it so special? Sustainable development enables present generations to satisfy their own needs without jeopardizing the potential needs of future generations. And yet even among the generations living today, for example between rich and poor countries, equal opportunities and the fair distribution of resources are core issues in the sustainability debate. Sustainability can be structured along three dimensions – economically, ecologically and socially. All three must be seen in conjunction, i.e. in an integrated way, because they are very closely connected.

Only by adopting this comprehensive approach can opportunities and risks be anticipated more effectively. We firmly believe, therefore, that broad-based sustainability management will generate crucial innovative and competitive advantages in the future, not only in industrialized countries but also in developing countries and emerging economies. For us, these regions will also become increasingly important.

In 2009, we have further developed our sustainability management system. Solar energy is our answer to climate change and increasingly scarce resources. It is our core competence, and we have been setting technical standards in this field for years. But even beyond this we want our actions to be guided consistently by the principles of sustainability. You can monitor these developments in our report on sustainable corporate management.

In this field, too, we are standard-setters. Since 2007 we have been using the GRI framework for our reporting, and in 2009, as in the preceding years, we again achieved A+ status, as attested by both GRI and our auditors. Since 2007 SOLARWORLD has been the only solar company in the world to meet the requirements of this reporting level. Since 2008 SOLARWORLD has additionally been applying the sustainability indicators of the German Society of Investment Professionals (DVFA), making us the first company in the world to adopt these criteria in our reporting. These DVFA criteria are subject to continuous further development. We actively participate in these discussions and, in our reports, will take any progress made into consideration. Moreover, on 16 October 2009 SOLARWORLD became the first purely solar company in the world to sign up to the UN Global Compact. We subscribe to the ten principles of the Global Compact in the fields of human rights, labour rights, environment protection and anti-corruption, and we hope to encourage the implementation of those principles in our sphere of influence. We integrate the annual progress report into our Group management report – just as we do with our reporting on our sustainability performance.

Our vision and strategy are extensively spelled out in the Group management report. ➔ [Vision](#) • p. 002// With our sustainability strategy, we are addressing the issues of quality and environmental management, and also social responsibility. ➔ [Interlinking of management tools](#) • p. 044// [Solar2World – not-for-profit commitment stepped up](#) • p. 087// But there is one thing we always remember: the foundation for all this is our commercial success. It gives us a firm footing and the leeway for action we need.

Together with my colleagues on the Executive Board, I invite you to form your own impressions of the accomplishments and challenges that have marked the evolution of the SOLARWORLD Group during the reporting year 2009. We would welcome your comments and suggestions and hope you will enter into a dialogue with us via [\[E\] sustainability@solarworld.de](mailto:sustainability@solarworld.de). We look forward to your feedback!

Please visit our website, too, where you will find detailed information about our commitments to corporate social responsibility. [\[G\] www.solarworld.de/sustainability](http://www.solarworld.de/sustainability)

With sunny regards,



Dipl.-Ing. Frank H. Asbeck  
CEO of SolarWorld AG

# SUSTAINABILITY: ANNEX TO THE ANNUAL GROUP REPORT FOR FISCAL YEAR 2009

BE INDEPENDENT

BE SUSTAINABLE

BE SUCCESSFUL

## **FACTS:** SUSTAINABILITY




- Economically, ecologically and socially sustainable – today and tomorrow
- At the very core of our commercial operations → [Vision](#) • p. 002 //
- Nothing automatic about it: it isn't enough being a solar producer, because sustainability affects all business divisions and the impacts on society.
- Strategic objectives that take joint account of economic, ecological and social factors
  - [Including ecological and social aspects](#) • S. 040 //
- Contribution to regional development across the world → [Off-grid technology taps new markets](#) • p. 130 //
- [Solar2World – not-for-profit commitment stepped up](#) • p. 087 //

## **FACTS:** SOLARWORLD SETS STANDARDS

- The first purely solar company in the world to sign up to the UN Global Compact (16/10/2009)
  - [Global Compact \(Communication on Progress\)](#) • p. 219 //
- The first company in the world to include the KPI's of the German Society of Investment Professionals (Deutsche Vereinigung für Finanzanalyse und Asset Management, DVFA) in reporting (since Group Annual Report 2008)
  - [KPI's for ESG \(Key Performance Indicators of the DVFA\)](#) • p. 221 //
- The world's first solar company to (1) integrate its report on sustainability performance into the Annual Group Report and (2) certify its performance: GRI A+ (since Annual Group Report 2007) → [Disclosure \(Global Reporting Initiative, Global Compact, DVFA\)](#) • p. 216 //

DISCLOSURE (GLOBAL REPORTING INITIATIVE, GLOBAL COMPACT, DVFA)

GLOBAL REPORTING INITIATIVE (CATEGORISATION AND INDEX)

BE INDEPENDENT		BE SUSTAINABLE		BE SUCCESSFUL			
<b>63 GRI APPLICATION FRAMEWORK</b>							
<b>APPLICATION LEVELS</b>		<b>C</b>	<b>C+</b>	<b>B</b>	<b>B+</b>	<b>A</b>	<b>A+</b>
<b>REQUIRED CRITERIA</b>			<b>IF REPORT IS EXTERNALLY CONFIRMED</b>		<b>IF REPORT IS EXTERNALLY CONFIRMED</b>		<b>IF REPORT IS EXTERNALLY CONFIRMED</b>
<b>G3 Profile Disclosures</b>	OUTPUT	REPORT ON: 1.1 2.1–2.10 3.1–3.8, 3.10–3.12 4.1–4.4, 4.11–4.15		REPORT ON: all criteria listed for Level C plus: 1.2 3.9, 3.13 4.5–4.13, 4.16–4.17		REPORT ON: same requirements as for Level B	
<b>G3 Management Approach Disclosures</b>	OUTPUT	No disclosure of Management Approach.		Management Approach disclosed for each Indicator Category.		Management Approach disclosed for each Indicator Category.	
<b>G3 Performance Indicators &amp; Sector Supplement Performance Indicators</b>	OUTPUT	Report on a minimum of 10 Performance Indicators, including at least one from each of: social, economic and environment.		Report on a minimum of 20 Performance Indicators, including at least one from each of: economic, environment, human rights, labor, society, product responsibility.		Report on each core G3 and Sector Supplement indicator* with due regard to the Materiality Principle by either: a) reporting on the indicator, or b) explaining the reason for its omission.	
<small>* where final version of sector supplement is available</small>							
	<b>STEP I</b> Self categorisation.						
	<b>STEP II</b> The report segments “KPI’s for ESG (core performance indicators of the DVFA)” and “Performance indicators” underwent an audit review by BDO Deutsche Warentreuhand AG Wirtschaftsprüfungsgesellschaft. BDO Deutsche Warentreuhand AG also takes account of information from audits according to ISO 9001 and 14001. Unless otherwise indicated the GRI data refer to the SolarWorld Group.						
	<b>STEP III</b> The GRI has confirmed that our reporting meets the requirements of Application Level A+.						

## 62 GRI-INDEX

217

Disclosure to GRI standard	Page/Info	Status	Disclosure to GRI standard	Page/Info	Status
1.1 Statement from the most senior decision-maker	224	●	4.9 Procedures of highest governance body for overseeing sustainability performance	230	●
1.2 Key impacts, risks and opportunities	224	●	4.10 Procedures for evaluating the highest governance body's own sustainability performance	230	●
2.1 Name of organization	2	●	4.11 Precautionary principle	231	●
2.2 Brands, products, services	050	●	4.12 External agreements, principles or initiatives	231	●
2.3 Operational structure	047	●	4.13 Memberships	232	●
2.4 Location of the organization's head-quarters	047	●	4.14 Stakeholder groups	234	●
2.5 Countries where the organization operates	050	●	4.15 Selection of stakeholders	235	●
2.6 Nature of ownership	066	●	4.16 Stakeholder Engagement	235	●
2.7 Markets served	051	●	4.17 Key topics and concerns raised by stakeholders	237	●
2.8 Scale of organization	097, 105	●	5. Management approach EC, EN, LA, HR, SO, PR	237	●
2.9 Significant changes in size, structure or ownership	047, 111, 139	●			
2.10 Awards	226	●	<b>Economic</b>		
3.1 Reporting period	226	●	EC1 Direct economic value generated and distributed	242	○ <sup>1,3</sup>
3.2 Date of last report, if applicable	227	●	EC2 Financial implications due to climate change	242	●
3.3 Reporting cycle (annual, biennial, etc.)	227	●	EC3 Coverage of organization's defined benefits plan	243	○ <sup>2</sup>
3.4 Contact for questions on report or its contents	227	●	EC4 Financial assistance received from government	243	●
3.5 Process for defining report content	227	●	EC5 Entry level wage compared to local minimum wage	Additional indicator	Data
3.6 Reporting boundary	227	●	EC6 Selection of locally based suppliers	243	●
3.7 Limitations on scope of reporting	227	●	EC7 Locally based hiring of employees	243	●
3.8 Joint ventures, subsidiaries, leased facilities, outsourced operations	228	●	EC8 Infrastructure investments and services provided mainly for public benefit	244	●
3.9 Data measurement techniques	228	●	EC9 Indirect economic impacts	Additional indicator	n.m.
3.10 Re-statement of information from earlier reports	229	●	<b>Environmental</b>		
3.11 Changes in reporting scope, boundary or measuring methods	229	●	EN1 Materials used	244	○ <sup>3</sup>
3.12 GRI index	This table	●	EN2 Recycling input materials	244	○ <sup>2,3</sup>
3.13 External assurance	229	●	EN3 Direct primary energy consumption	245	○ <sup>1</sup>
4.1 Governance structure of the organization	229	●	EN4 Indirect primary energy consumption	245	○ <sup>1,2</sup>
4.2 Indication whether the Chair of the highest governance body is at the same time the Managing Director	229	●	EN5 Energy savings	Additional indicator	Data
4.3 Details of unitary organization	n.z.	●	EN6 Initiatives for energy efficiency and renewable energy	Additional indicator	Data
4.4 Mechanisms for recommendations or instructions to the highest governance body	229	●	EN7 Initiatives to reduce indirect energy consumption and reductions achieved	Additional indicator	Data
4.5 Relationship between compensation for members of the highest governance entity, the executive board and other executives and the performance of the organization	229	●	EN8 Total water withdrawal	245	○ <sup>1</sup>
4.6 Mechanisms for avoidance of conflicts of interest within the highest governance body	229	●	EN9 Impact of water consumption	Additional indicator	n.m.
4.7 Qualifications and expertise of members of the highest governance body with respect to sustainability topics	230	●	EN10 Water recycled and reused	Additional indicator	n.m.
4.8 Statements of mission, code of conduct, principles	230	●	EN11 Land in or adjacent to protected areas or areas of high biodiversity value	245	●
			EN12 Impact on biodiversity	246	●
			EN13 Habitats protected or restored	Additional indicator	n.m.
			EN14 Strategies for protection of biodiversity	Additional indicator	n.m.
			EN15 Threatened species	Additional indicator	n.m.
			EN16 Greenhouse gas emissions	247	●

Disclosure to GRI standard	Page/Info	Status
EN17 Other relevant indirect greenhouse gas emissions	247	○ <sup>2</sup>
EN18 Initiatives to reduce greenhouse gas emissions	Additional indicator	Data
EN19 Emissions of ozone-depleting substances	247	●
EN20 NO <sub>x</sub> , SO <sub>x</sub> and other air emissions	247	●
EN21 Total water discharge	248	○ <sup>1,2</sup>
EN22 Waste by type and disposal method	248	○ <sup>1,2</sup>
EN23 Significant spills	248	●
EN24 Hazardous waste under Basel Convention	Additional indicator	n.a.
EN25 Impact of water discharges on biodiversity	Additional indicator	n.a.
EN26 Initiatives to mitigate environmental impacts	248	●
EN27 Packaging materials	248	○ <sup>2</sup>
EN28 Sanctions for non-compliance with environmental laws and regulations	249	●
EN29 Environmental impacts of transporting products	Additional indicator	Data
EN30 Environmental protection expenditure	Additional indicator	Data
<b>Social</b>		
LA1 Total workforce by employment type, employment contract and region	249	○ <sup>3</sup>
LA2 Employee turnover	250	○ <sup>2,3</sup>
LA3 Benefits to full-time employees	Additional indicator	Data
LA4 Employees covered by collective bargaining agreements	250	●
LA5 Minimum notice periods regarding significant operational charges	250	●
LA6 Employees represented in health & safety committees	Additional indicator	n.m.
LA7 Injuries, occupational diseases, lost days, absenteeism and work-related fatalities	251	○ <sup>3</sup>
LA8 Education and training on serious diseases	252	●
LA9 Health & safety topics covered in agreements with trade unions	Additional indicator	n.m.
LA10 Initial and further training for employees	252	○ <sup>2</sup>
LA11 Programs for skills management and life-long learning	Additional indicator	n.m.
LA12 Performance and career development reviews for employees	Additional indicator	Data
LA13 Composition of governance bodies	252	○ <sup>2,3</sup>
LA14 Ratio of basic salary of men to women	253	○ <sup>2,3</sup>
HR1 Investment agreements	254	●
HR2 Screening of suppliers and contractors on human rights	255	●
HR3 Training on aspects of human rights	Additional indicator	n.a.
HR4 Incidents of discrimination	255	●
HR5 Freedom of association and collective bargaining	255	○ <sup>2</sup>
HR6 Child labour	255	○ <sup>2</sup>
HR7 Forced and compulsory labour	255	○ <sup>2</sup>

Disclosure to GRI standard	Page/Info	Status
HR8 Training of security personnel	Additional indicator	n.a.
HR9 Violations of rights of indigenous people	Additional indicator	n.a.
S01 Impact on communities	255	○ <sup>2</sup>
S02 Risks related to corruption	255	●
S03 Training in anti-corruption policies	255	●
S04 Corruption incidents and action taken	256	●
S05 Lobbying	256	●
S06 Contributions to political parties, politicians and related institutions	Additional indicator	n.m.
S07 Legal actions for anti-competitive behaviour	Additional indicator	n.a.
S08 Sanctions for non-compliance with laws and regulations	256	●
PR1 Impacts on customer health and safety	256	●
PR2 Non-compliance with health and safety regulations and voluntary codes	Additional indicator	n.a.
PR3 Product information	256	●
PR4 Non-compliance with codes concerning product labelling	Additional indicator	n.a.
PR5 Customer satisfaction	Additional indicator ESG 11-1 p.222	Data
PR6 Standards related to advertising	257	●
PR7 Non-compliance with marketing standards	Additional indicator	n.a.
PR8 Breaches of customer data privacy	Additional indicator	n.a.
PR9 Sanctions for non-compliance with product and service regulations	257	●
+ Confirmation	258	●
+ No appropriate sector supplements exist		n.a.

**LEGENDE**

- Reported in full
  - Reported in part
  - Data Data not available
  - n.m. Not material
  - n.a. Not applicable
  - n.s. Not specified
- 1) **Explanation Type 1:** The performance indicator is not material or not applicable. An explanation is provided why the performance indicator is immaterial with regard to tests and concepts of the materiality principle. An explanation is given on why immateriality exists with regard to business processes and why corporate activities in this specific area do not have any effect.
  - 2) **Explanation Type 2:** Information on the performance indicators is not available. The barriers to tests and concepts of the materiality principle are explained. The time horizon for implementation of the improvements is further specified (short-term, mid-term, long-term).
  - 3) **Explanation Type 3:** Explanation Type 3: Information on the performance indicators is not allowed (protected). It is outlined to what extent data must not be reported, i. e. whether data capture/disclosure is legally prohibited or whether the performance indicator represents confidential business information.
- e) Data marked with an “e” in the reporting are estimated values.



## GLOBAL COMPACT (COMMUNICATION ON PROGRESS)

This Communication on Progress includes the statement of Commitment to the Global Compact → *Letter from the Chairman* • p. 213//, the description of practical steps to implement the ten Principles of the Global Compact in fiscal year 2009 as well as the measurement of outcomes based on application of the GRIs performance indicators

### 63 OVERVIEW ON THE COMMUNICATION ON PROGRESS (GLOBAL COMPACT)

Issues	Principles of the Global Compact
Human Rights	Principle 1: Businesses should support and respect the protection of internationally proclaimed human rights. Principle 2: Businesses should make sure that they are not complicit in human rights abuses.
Labour	Principle 3: Businesses should uphold the freedom of association and the effective recognition of the right to free collective bargaining. Principle 4: Businesses should uphold the elimination of all forms of forced and compulsory labour. Principle 5: Businesses should uphold the effective abolition of child labour. Principle 6: Businesses should uphold the elimination of discrimination in respect of employment and occupation.
Environment	Principle 7: Businesses should support a precautionary approach to environmental challenges. Principle 8: Businesses should undertake initiatives to promote greater environmental responsibility. Principle 9: Businesses should encourage the development and diffusion of environmentally friendly technologies.
Anti-Corruption	Principle 10: Businesses should work against corruption in all its forms, including extortion and bribery.
Principles	Self-commitment: Quotes
Principles 1, 2, 6	Guideline 1: "We stand for humane treatment and equal opportunities"
Principle 7	Guideline 2: "Our production is compatible with the protection of the environment using the best possible processes and product standards."
Principle 7	Guideline 3: "We use existing resources responsibly and sparingly."
Principles 1 and 2	Guideline 4: "State-of-the-art methods are used to avoid any health hazards and risks that may be caused by SolarWorld processes and products."
Principle 10	Guideline 5: "Fair competition is the very basis of our business activities. Bribery and corruption are unlawful and not tolerated."
Principles 1-10, especially Principles 4 and 5	Guideline 10: "We support the Global Compact of the United Nations - especially the ban on child labour and on forced labour - and also demand compliance with it from our suppliers and business partners."
Principles 1 and 2	Code of Conduct*: "We respect the rights and dignity of all employees."
Principle 3	Code of Conduct*: "SolarWorld upholds the freedom of association and respects the right to free collective bargaining. Each site complies with the provisions of law, collective bargaining agreements and company rules applicable in its context. The management of each site guarantees compliance with these rules and determines local company policy in this regard."
Principles 4 and 5	Code of Conduct*: "Forced and child labour are strictly forbidden by law in most countries and worldwide at SolarWorld."
Principle 6	Code of Conduct: "Nobody in the SolarWorld Group shall be subjected to discrimination. This also applies to the choice of contractual and business partners [...]"
Principles 7-9	Code of Conduct*: "The SolarWorld Group devotes particular attention to protecting the environment. It is our declared aim to promote the protection of climate and resources in active ways. We therefore pledge to respect all applicable rules to the full. Moreover, we shall take pains to keep any negative environmental effects which might derive from our activities to a minimum and to reduce such effects continually [...]"
Principle 10	Code of Conduct*: "The SolarWorld Group accepts the ICC Rules of Conduct on Extortion and Bribery in International Business Transactions of 1999 and the OECD Convention of 1997. [...]"

\* Approval planned for 2010. Examination by works council still outstanding.

Principles	Systems	Notes/Cross References
Principles 1-10	Values and Guidelines	<a href="http://www.solarworld.de/values-and-guidelines">www.solarworld.de/values-and-guidelines</a>
Principles 1-10	Suppliers' Code of Conduct	→ 4.8 • p. 230 // 5 • p. 237 //
Principles 1 and 2	Health & Safety Management	→ 5 • p. 237 // LA7 • p. 251 //
Principles 1 and 2	No use made of private security personnel	→ 5 • p. 237 //
Principle 3	Guidelines and procedures that are neutral regarding associations or trade unions	→ 5 • p. 237 // HR5 • p. 255 //
Principle 3	Creation of prerequisites permitting employees to exercise functions in associations or trade unions	→ 5 • p. 237 // HR5 • p. 255 //
Principle 4	Pay always more than the local minimum wage	Group-wide standard
Principle 4	Maximum regular working week 40 hours, with incremental pay for overtime	Group-wide standard
Principle 5	Minimum working age respected, including when selecting suppliers	Minimum age 15 years (reference: ILO Convention 138(7)) or higher local minimum, Group-wide standard
Principle 6	Standards enshrined in the German Equality Act (AGG) applied	Group-wide standard (voluntary)
Principles 7-9	Environmental management	→ 5 • p. 237 // EN1-28 • p. 244 //
Principles 1-7, 10	High legal standards in Germany and the United States	→ 5 • p. 237 // EC7 • p. 243 // EN20 • p. 247 // EN27 • p. 248 // LA7 • p. 251 // HR5 • p. 255 // PR3 • p. 256 // PR6 • p. 257 // PR9 • p. 257 //
Principle 10	Compliance Officer	SolarWorld has a Compliance Officer.
Principles	Measures in 2009	Notes/Cross References
Principles 1-10	Finalization of the Code of Conduct	→ 4.8 • p. 230 // 5 • p. 237 //
Principles 1-10	Executive Board adopts a Suppliers' Code of Conduct	→ 4.8 • p. 230 // 5 • p. 237 //
Principles 1-10	A contact form posted on the website that can be used for sending messages anonymously, and hence also for whistle blowing.	<a href="http://www.solarworld.de/stakeholder">www.solarworld.de/stakeholder</a> → 4.16 • p. 235 //
Principles 1-10	Sustainable Group governance	→ 4.1 • p. 229 // 4.8 • p. 230 //
Principle 3	Agreements with trade unions	→ 5 • p. 237 // HR5 • p. 255 //
Principles 7-9	Participation in sector-wide collaboration on Life Cycle Analysis	→ 4.16 • p. 235 //
Principle 7	Precautionary principle	→ 4.11 • p. 231 //
Principle 8	PR activities to raise awareness	"Climate marketing" (e.g. Spiegel supplement), promotion of research, contribution to regional development (Solar2World)
Principle 9	Continuous because our business is exclusively solar energy	Annual Group Report 2009
Principle 9	Technical innovations in Research & development (purely solar group)	→ Group management report • p. 031 //
Principle 9	Solar2World projects	→ Group management report • p. 031 //
Principles	Performance (see GRI Performance Indicators)	Notes/Cross References
Principle 1	LA4, LA7-8, LA13-14, HR1-2, HR4-7, SO5, PR1	→ Social performance indicators • p. 249 //

Principles	Performance (see GRI Performance Indicators)	Notes/Cross References
Principle 2	HR1-2, HR4-7, SO5	→ <u>Social performance indicators</u> • p. 249//
Principle 3	LA4-5, HR1-2, HR5, SO5	→ <u>Social performance indicators</u> • p. 249//
Principle 4	HR1-2, HR7, SO5	→ <u>Social performance indicators</u> • p. 249//
Principle 5	HR1-2, HR6, SO5	→ <u>Social performance indicators</u> • p. 249//
Principle 6	EC7, LA2, LA13-14, HR1-2, HR4, SO5	→ <u>Economic performance indicators</u> • p. 242// <u>Social performance indicators</u> • p. 249//
Principle 7	EC2, EN18, EN26, SO5	→ <u>Economic performance indicators</u> • p. 242// <u>Ecological performance indicators</u> • p. 244// <u>Social performance indicators</u> • p. 249//
Principle 8	EN1-4, EN8, EN11-12, EN16-17, EN19-23, EN26-28, SO5, PR3	→ <u>Ecological performance indicators</u> • p. 244// <u>Social performance indicators</u> • p. 249//
Principle 9	EN2, EN 26-27, SO5	→ <u>Ecological performance indicators</u> • p. 244// <u>Social performance indicators</u> • p. 249//
Principle 10	SO2-5	→ <u>Social performance indicators</u> • p. 249//

## KPI's FOR ESG (KEY PERFORMANCE INDICATORS, DVFA)

The German Society of Investment Professionals (DVFA) Commission on Non-Financials (CNF) has been working since 2006 on the development of Key Performance Indicators to integrate extra- and non-financial performance indicators on ESG (environmental, social and governance issues), sustainability, corporate governance and risk management, into established corporate analysis and investment decision methodology. We are actively participating in this discussion and are for the second time including the DVFA criteria (status: 2008) in our reporting. Up to today, the data are not yet available for all criteria, but progress is indicated annually.

### 64 THE KEY PERFORMANCE INDICATORS OF THE DVFA

General Key Performance Indicators for Environmental, Social and Governance Issues (KPI's for ESG)

Prio	Indicator	Name	Description	2008	2009	2010	Comments
1	ESG 1-1	Total Energy Consumption	Total corporate energy consumption (primary & secondary sources) in MWh	269,600e	368,002e	↑	As in previous year a growth of similar size (underproportionate to production increase) is expected.
1	ESG 1-2	Energy Intensity	Total corporate energy consumption in MWh/sales in €	300	363e	↓	Strong increase in production, production figures are not disclosed, price drop of some 30% in the module and kit market in 2009.
1	ESG 2-3	Renewable Energy	Investments in renewable energy consumption as percentage of total investments	100%	100%	100%	Due to the business field all investments are connected to the use of renewable energies.
1	ESG 3-1	Staff Turnover	Percentage of full-time employees leaving in year	3.6%	9.3%	↓	No distinction has been made hitherto between full-time and part-time. (In the 2008 report absolute figures were quoted)

## General Key Performance Indicators for Environmental, Social and Governance Issues (KPI's for ESG)

Prio	Indicator	Name	Description	2008	2009	2010	Comments
1	ESG 4-2	Training & Qualification	Average expenditure on training/employee (in €)	382.13	356.53	↑	Expenditure on training by external providers has hitherto not been included.
1	ESG 5-2	Maturity of Workforce	Percentage of workforce to retire within the next 5 years of reported period	n.s.	2e%	↔	Estimate (basis: employees aged 60+): 20 employees at German sites, 27 at US locations, no employees at locations in Spain, Singapore and South Africa.
1	ESG 6-1	Absenteeism Rate	Working times lost/ employee	2.5%	3.4%	↓	Causes of increase so far not known.
1	ESG 7-1	Restructuring related relocation of jobs	Total cost of relocation in k€ including indemnity, pay-off, outplacement, hiring, training, consulting	n.s.	427	↔	Data not yet collected in this aggregated form, but values available for 2009 in the USA (including indemnities, outplacements, extended health insurance).
1	ESG 8-1	Contributions to political parties	Contributions to political parties in k€/revenue	45	40	↔	To promote renewable energies and climate and resource protection SolarWorld exerts social influence. In this context we also give financial support to individuals, parties and associations who work in favor of renewable energies.
1	ESG 9-1	Anti-competitive behaviour, anti-trust, monopoly practices	Expenses and fines on actions and law suits related to anti-competitive behavior, anti-trust and monopoly practices	n.s.	0	↔	
1	ESG 10-1	Corruption	Percentage of business in regions with Corruption Index below 6.0	16e%	31%	↑	2009 incl. wafers for first time; Wafers: 53%, Trade: 7%
1	ESG 11-1	Customer Satisfaction	Percentage of satisfied customers as percentage of total customers	n.s.	> 85%	↑	Aggregate figure (trade) Satisfaction analysis (wafers) will come to hand in Summer of 2010.
1	ESG 12-1	Revenues from New Products	Percentage of revenues from products with lifecycle shorter than 12 months	n.s.	35%	↔	

## Specific Key Performance Indicators for Environmental, Social and Governance Issues (KPI's for ESG)

Prio	Indikator	Name	Beschreibung	2008	2009	2010	Kommentar
1	ESG 13-8	CO <sub>2eq</sub> emissions	CDP definition (in CO <sub>2eq</sub> )	96,310e	139,278e	↑	Estimate. With strong production increase in 2009.
1	ESG 14-8	NO <sub>x</sub> , SO <sub>x</sub> emissions of all production sites; entire company	GRI definition (in tonnes)	2.05e	3.5e	↑	Estimate. With strong production increase in 2009.
1	ESG 15-1	Waste	Total waste related to production (in tonnes)	9,383e	13,010e	↑	Estimate, only absolutely specified, as production figures are not disclosed (strong production increase in 2009).
1	ESG 16-2	Environmental Compatibility	Percentage of ISO 14001 certified sites (weighted by average capacity)	74%	64%	↑	USA not yet certified due to relatively small production/trading volumes (strong production increase in year 2009).
1	ESG 17-1	End-of-life-cycle impact	Percentage of material recovered for reuse at end of lifecycle of product	Ca. 0%	Ca. 0%	↔	Products fully recyclable; goal: to maximize material recovery for new PV products; recycling of SolarWorld modules ("scrap") so far not significant due to reliable long-life technology (so far very little recovered material in relation to newly produced goods). Recycled material (production and semi-conductor waste) used in manufacturing; "reject" approx. 20% of silicon consumption. Member of PV Cycle

## Specific Key Performance Indicators for Environmental, Social and Governance Issues (KPI's for ESG)

Prio	Indikator	Name	Beschreibung	2008	2009	2010	Kommentar
1	ESG 18-1	Diversity	Female employees as percentage of total employees	19%	22%	↔	Ratio of women fell from 2007 to 2008 due to relocating US wafer and cell production from Camarillo (solar and semi-conductor market with high percentage of women) to Hillsboro (solar and semi-conductor market with low percentage of women); by now group-wide share of women close to 2007 level again
2	ESG 23-1	Supplier agreements and supply chain partners screened for compliance with ESG	Number of suppliers screened for compliance with ESG as percentage of total number of suppliers	n.s.	n.s.	↑	Supplier agreement exists since end of 2009 and will be incorporated into contracts in 2010.
2	ESG 24-2	Health & Safety aspects of products	Number of product recalls for safety or health reasons as percentage of total products sold or shipped	0	0	↔	
2	ESG 25-1	Litigation payments	Total litigation payments in k€	n.s.	17e	↔	Amount rounded. Extraordinary influence: Trademark lawsuit in the USA (payments for the litigation not neatly separable from payments for settlement, therefore not included).
2	ESG 26-1	Dimension of pending legal proceedings	Amount in dispute in k€	n.s.	42e	↔	Amount rounded. Active litigation, counter-claims and cases with no fixed amount in litigation are not considered.
1	ESG 27-1	R&D expenses	Total R&D expenses (in m€)	13.0	11.8	↔	
2	ESG 28-1	Patents	Number of invention claims registered within the last 12 months	18	28	↑	Our control variable is the number of inventions claimed and not the number of patents registered (value for 2008 was appropriately adjusted).
2	ESG 30-2	Customer Retention	Average length of time of customer relationship in years	n.s.	6e	↔	Have hardly ever lost customers, but are steadily gaining new ones; in the market for 11 years; Number of specialist partners rose by 20% to about 500 in 2009.

## THE DVFA

THE DVFA has for years been considered the trend setter for industrial standards, like for example the German Standards for Financial Research (Deutsche Grundsätze für Finanz-Research = DGFR), the standards for effective financial communication as well as the rating and validation standards.

## STRATEGY AND MANAGEMENT

## / 1.1 / STATEMENT FROM THE MOST SENIOR DECISION-MAKER

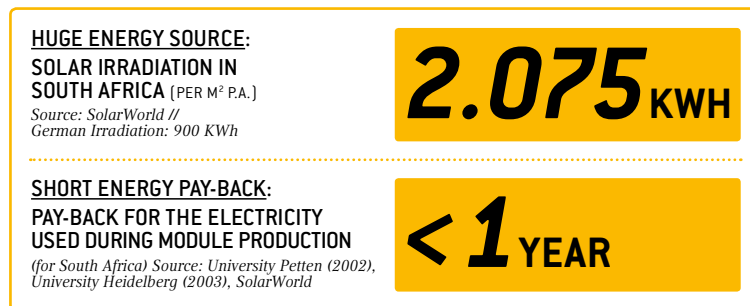
→ *Letter from the Chairman • p. 213 //*

## / 1.2 / KEY IMPACTS, RISKS AND OPPORTUNITIES

## PART 1: PRINCIPAL SOLARWORLD IMPACTS ON SUSTAINABILITY AND CONSEQUENCES FOR STAKEHOLDERS

The sun's power is available to everyone around the planet. In terms of human time, radiation from the sun offers an infinite source of energy. Creating the systems to convert that energy only requires a fraction of the energy which the system will generate during its life cycle:

## 65 THE POTENTIAL: ENERGY CREATES THE BASIS FOR DEVELOPMENT



Using it poses no dangers, and production is reliable. Solar energy in conjunction with other renewable sources is the answer to the global energy shortage and advancing climate change. SOLARWORLD exerts a direct influence on the progress of solar energy and, as a result, on the lives of millions of people around the world.

## 66 THE IMPACT OF SOLARWORLD AG

**Economic aspects**

Profitability as a fundamental prerequisite for sustainable economic action; customer orientation (price/performance ratio, warranties, delivery reliability, service); compliance with quality standards; contribution to technological development

**Ecological aspects**

Consideration of ecological aspects in operative business; controlled use of resources; involvement for conservation of resources and climate protection; recycling

**Social aspects**

Creation of jobs; shaping working conditions; qualification in the organization; provisioning for old age

**Corporate governance**

Compliance with the law; maintaining employees' rights; fair business relationships; reliability; solid investment for investors (transparency, accuracy of disclosures and good corporate governance); fair competition

## 67 POSSIBLE CONSEQUENCES FOR STAKEHOLDERS

Opportunities	Stakeholders	Priority	Reasons
Good future prospects in a growth market	Employees	medium	Differentiation from competitors and other industries
Participation in changes towards sustainable social development	Employees	high	Strengthens employee motivation and identification with their own work
Financial participation in the success of the company	Employees	medium	Identification with corporate development (feeling of appreciation in good times, solidarity in bad times)
Guaranteed product quality	Customers	medium	Long-term investment
Growth and security due to solid business relations with SolarWorld (competent high-quality manufacturer with longstanding expertise)	Customers, suppliers	medium	Increasing competitive pressure, long-term networks as intangible resources
Ethically acceptable business practices	Customers, suppliers	medium	Differentiation in the market, preventing incidents and proceedings, protection of corporate image
Reliable finance partner	Shareholders, banks, creditors, suppliers, customers	high	Differentiation from competitors, protection of property
Potential consideration in sustainability funds	Shareholders	high	For long-term investments, steady and strong growth over many years
Risks	Stakeholders	Priority	Reasons
Potential termination of the employment relationship by the company	Employees	low	Few employees affected due to growth in market and organization
Work-related illness, accidents	Employees	medium	Health and safety management reduces accidents; no serious work-related illnesses were reported (reported on a voluntary basis)
Permanent change processes, rapid change	Employees	medium	Finding the right measure so that employees work productively
Sanctions in the event of rescission from contract, non-performance/faulty performance	Customers, suppliers	medium	Intact customer and supplier networks as valuable resource; investment in long-term good business relationships
Demand overhang: supply shortages and high prices	Customers	small	Bottleneck constellation no longer exists in the market
Supply overhang: excess supplies and price slumps	Suppliers	medium	Tightening of the legal framework, tougher competition, market consolidation to be expected
Poor capital market performance, slump in equity prices	Shareholders, investors, indirectly analysts and brokers	medium	In particular due to tougher legal background conditions nervous response by analysts and shareholders to corporate news
Lack of financial stability, sanctions against the company	Shareholders, banks, creditors	low	Sound corporate management, application of Group-wide corporate ethics and the Code of Conduct, zero tolerance
Nuisance caused for example by noise and/or light radiation in direct vicinity to the production sites	Residents/local population	medium	Production noise not to be fully avoided, full compliance with legal provisions, exchange with neighbors in neighborhood meetings and joint development of measures for example to reduce noise and light radiation

Achievements in the reporting period and performance enhancement programmes 2010+.  Target achievement 2009 and targets 2010+ • p. 038//

## SECTION 2: IMPACT OF SUSTAINABILITY TRENDS, RISKS AND OPPORTUNITIES ON THE LONG-TERM DEVELOPMENT AND FINANCIAL PERFORMANCE OF SOLARWORLD AG

Information on the corporate risks, corporate opportunities, targets achieved for 2009 and targets for 2010+ as well as governance mechanisms is provided in the management report. ➔ [Report on expected development with its major opportunities and risks • p. 114](#)// [Statement on the corporate governance of the company • p. 053](#)// ⑧ [Target achievement 2009 and targets 2010+ • p. 038](#)//

### / 2.10 / AWARDS

Awards and distinctions received in the reporting period:

#### GERMANY'S BEST EMPLOYERS 2009 (GREAT PLACE TO WORK INSTITUTE GERMANY), 55<sup>TH</sup> PLACE (PREVIOUS YEAR: 57<sup>TH</sup>)

SOLARWORLD took part in the study for the second time, achieving a solid 55th place. The list of "Germany's best employers" was determined on the basis of standardized assessment criteria (the employee survey from the Great Place to Work Trust Index and a cultural audit among HR staff). Participation is voluntary. Any German or foreign company, or any public or private organization, employing at least 50 staff in Germany is entitled to take part.

#### BEST ANNUAL REPORTS (MANAGER MAGAZIN), 2<sup>ND</sup> PLACE (TECDAX)

In the annual awards by manager magazin for the best company reports, we defended our second place in the TecDAX. Following a third place in 2007 and seventh in 2006, we have secured this rank for ourselves since 2008. The jury, chaired by Prof. Jörg Baetge from Münster University as its scientific expert, checked the annual reports of the largest German companies in the categories contents, style and language.

#### DELOITTE TECHNOLOGY FAST 50 AWARD (DELOITTE), 34<sup>TH</sup> PLACE (PREVIOUS YEAR: 17<sup>TH</sup>)

In 2009 SOLARWORLD AG was once again among the fastest growing technology companies in Germany. On 21st October, following 350.3% growth over 5 years, the Group received the Technology Fast 50 award in Hamburg from business consultants Deloitte, marking us as one of 50 enterprises in the fields of technology, communication and life science. In granting this prize in 2009, the jury honoured the cumulative growth in sales over the last five fiscal years and a unique tale of growth and success. The award was presented in cooperation with the magazine Capital, Deutsche Börse AG and the German Society of Professional Investors (DVFA).

#### IÖW/FUTURE RANKING OF SME SUSTAINABILITY REPORTS, 2<sup>ND</sup> PLACE (SME WITH A HEADCOUNT OF > 250)

2009 was the first year that the Berlin Institute Ecological Economy Research (IÖW) and future e.V. carried out their ranking of small and medium-sized enterprises (SME). SOLARWORLD won 2nd place in the category of SMEs with a headcount of more than 250. The patrons were the German Minister Olaf Scholz and Dr. Volker Hauff, Chairman of the country's Sustainable Development Council.

#### JUNGE KARRIERE, FAIR COMPANY

SOLARWORLD is one of 1,400 companies identified by Junge Karriere, the monthly magazine for people setting out on a career, as a "Fair Company". Junge Karriere defines a Fair Company as one which does not replace full-time employees by interns or other unpaid or barely paid trainees/guests students who are supposed to be there to gain work experience, does not fob off young university graduates with an internship when they have applied for a proper job, does not lure interns with the vague prospect of a full-time job down the line, but does offer work experience above all to help youngsters make the right choices during their initial training, and pays interns an adequate financial compensation for their work.

### / 3.1 / REPORTING PERIOD

Calendar year 2009 (01 Jan 2009-31 Dec 2009) = fiscal year 2009



**/ 3.2 / DATE OF LAST REPORT**

Calendar year 2008 (01 Jan 2008-31 Dec 2008)

**/ 3.3 / REPORTING CYCLE**

Annual

**/ 3.4 / CONTACT FOR QUESTIONS ON REPORT OR ITS CONTENTS**

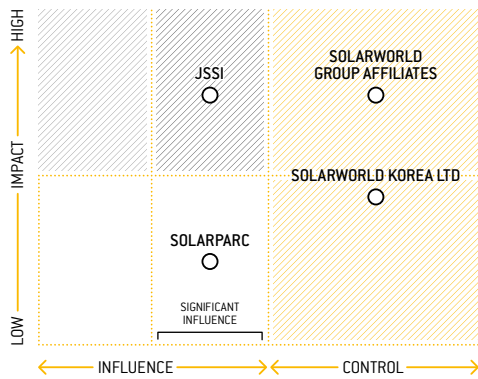
IR department

**/ 3.5 / PROCESS FOR DEFINING REPORT CONTENT**

**MATERIALITY:** Materiality is determined by the economic, environmental and social/societal impact of the topics and indicators. Disclosure is practiced for the purpose of informing stakeholders. It includes the topics and indicators which significantly influence the assessments and attitudes of stakeholders. We assume in principle that all Core Indicators contain significant information for the stakeholders in all organizations. Regarding the additional indicators, the data available were not sufficient in some cases. The other indicators were not considered relevant or are not applicable.

The following chart shows that the Annual Report covers topics of equally high priority for society and the company. Disclosures on the remaining issues are provided in the present Annex to the Annual Group Report for fiscal year 2009.

**69 MATERIALITY MATRIX**



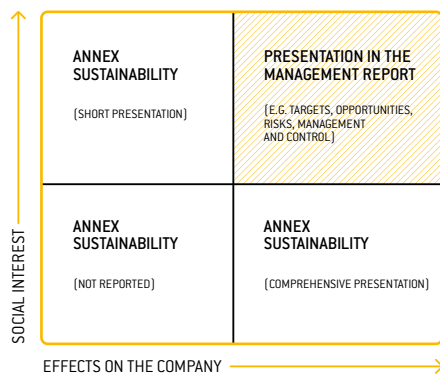
**PRIORITIES:** We have included the core indicators as much as our current data situation allowed. In some cases we have internal data available which we are not able to disclose because they include confidential information. We are making every effort to further increase the transparency of our GRI reporting. On the joint ventures we do not yet have sufficiently detailed statistical data available. We intend to pursue this more vigorously in the medium term along with our joint venture partners.

**STAKEHOLDERS:** The main stakeholder groups who will use the present report are investors (shareholders, institutional investors, analysts as intermediaries). In addition, the report will serve to inform employees and customers (wholesalers, installers, final customers) and suppliers of the SOLARWORLD Group. It will also be a source of information for the interested public.

/ 3.6 / **REPORTING BOUNDARY**

As a general rule, the reporting boundary includes all the organizational units that we control and significantly influence, i.e. all SOLARWORLD Group companies. Upstream and downstream stages of the value chain outside the SOLARWORLD Group are included only to a limited degree, due to lack of control and influence. Apart from the Group companies, management policy also applies to SOLARWORLD KOREA LTD. The strategic information in this report furthermore relates to the JOINT SOLAR SILICON (JSSI) VERWALTUNGS-GMBH and SOLARPARC AG (see also Annual Report of SOLARPARC AG 2009). Any reporting boundaries that depart from this principle are indicated for each individual item of the GRI.

Subsidiaries and leased facilities are included as a matter of course. Joint Ventures are only included if we exert operational control and significant strategic influence with regard to a specific indicator. Outsourced operations (such as logistics companies) are not included. The reporting boundaries are as congruent as possible with those of the previous year to ensure that reporting periods and data relating to different structures remain comparable. Any departures from this principle are indicated. The results are representative of the Group or are interpreted in that sense.

⑥9 **REPORTING BOUNDARY**

Control means “the power to govern the financial and operating policies of an enterprise so as to obtain benefits from its activities” (GRI). A significant influence means “the power to participate in the financial and operating policy decisions of the entity but not control over those policies” (GRI).

/ 3.7 / **LIMITATIONS ON SCOPE OF REPORTING**

Limitations on scope are currently set by the reasons indicated. ➔ [3.5 Priorities](#) • p. 227 // Further details are highlighted for the specific indicators.

/ 3.8 / **JOINT VENTURES, SUBSIDIARIES, LEASED FACILITIES AND OUTSOURCED OPERATIONS**

See 3.6.

/ 3.9 / **DATA MEASUREMENT TECHNIQUES**

The GRI Indicator Protocols were used in reporting.

/ 3.10 / **RE-STATEMENT OF INFORMATION FROM EARLIER REPORTS**

We have not adjusted the fundamental format of the previous year but have updated reported figures if more accurate values were available.

/ 3.11 / **CHANGES IN REPORTING SCOPE, BOUNDARY OR MEASURING METHODS**

- Higher data breadth and depth particularly for the performance indicators LA1, LA2, LA7, LA10, LA13, LA14
- LA7: Standardization of the reporting method (accident must be reported if at least 3 days are lost)
- Extensive reporting about SOLARWORLD KOREA LTD., especially with reference to ecological indicators (EN)
- Progress report along the ten principles of the Global Compact.

/ 3.13 / **EXTERNAL ASSURANCE**

The present report, the Group management report and the financial statements were subjected to an auditing review by BDO Deutsche Warentreuhand AG Wirtschaftsprüfungsgesellschaft. → [Confirmation for the report on sustainable corporate management of SolarWorld AG for calendar year 2009](#) • p. 258//

/ 4.5 / **RELATIONSHIP BETWEEN COMPENSATION FOR MEMBERS OF THE HIGHEST GOVERNANCE ENTITY, THE EXECUTIVE BOARD AND OTHER EXECUTIVES AND THE PERFORMANCE OF THE ORGANIZATION**

Compensation for members of the Executive Board, senior executives and the members of top management is based on individual target agreements. Our integrated sustainability management Corporate → [Corporate management and control](#) • p. 040// thus also comprises sustainability aspects, but there is no separate compensation component. → [Compensation report](#) • p. 056//

/ 4.6 / **MECHANISMS FOR AVOIDANCE OF CONFLICTS OF INTEREST WITHIN THE HIGHEST GOVERNANCE BODY**

In 2007 an Ethics Council was set up, alongside the Strategy Council, to address issues relating to sustainable, ethical corporate governance. → [Corporate management and control](#); • p. 040// [Statement on the corporate governance of the company](#) • p. 053// [4.16](#) • p. 235// [SO1](#) • p. 255// Moreover, once the Code of Conduct → [4.8](#) • p. 230// has been adopted in 2010, SOLARWORLD ombudspersons are to be appointed who can be called upon in cases where there is a conflict of interest. This was originally planned for 2009, but delayed by complex internal coordination processes and the need to assess the document in the light of different jurisdictions. In early 2010 the Code of Conduct will be laid before the works council in Freiberg. As soon as it approves the document, the content can be rolled out across the Group.

#### / 4.7 / **QUALIFICATIONS AND EXPERTISE OF MEMBERS OF THE HIGHEST GOVERNANCE BODY WITH RESPECT TO SUSTAINABILITY TOPICS**

The CEO, Frank H. Asbeck, holds a degree in agricultural engineering. He was involved in development projects in Africa before setting up SOLARWORLD AG. He is a founding member of the Green Party. Philipp Koecke (Dipl.-Kfm. tech.) joined SOLARWORLD AG after working in the finance and banking sector for a number of years. Boris Klebensberger (Dipl.-Ing.) joined SOLARWORLD AG at about the time when he was finishing his degree studies. Since then he has been working intensely on matters such as improvements in production processes. Frank Henn (Dipl.-WirtschaftsIng.) has many years of experience in sales and marketing in multinational companies.

#### / 4.8 / **MISSION STATEMENT, CODE OF CONDUCT AND PRINCIPLES**

Our vision, values, guidelines and Code of Conduct as well as our strategy reflect our mission statements regarding economic, environmental and social aspects. These mission statements apply throughout the Group and are implemented by means of our management instruments → [Interlinking of management tools](#) • p. 044// and by the examples set by our senior executives. → [Vision](#) • p. 002// [Strategy and action](#) • p. 033// [Human resources 2009](#) • p. 105//

The Code of Conduct will be laid before the works council in Freiberg in early 2010. This has been a legal requirement since 2008 (ruling by the Federal Labor Court (BAG) in Germany on 22 July 2008 on Section 87 of the Industrial Relations Act (BetrVG)). Once the works council has granted its approval, the Code will be officially rolled out and publicized. The Code of Conduct is a voluntary standard for our conduct on the basis of applicable international and national law throughout the Group and will govern our actions in areas where no commercial or statutory rules have been formulated or where SOLARWORLD does not believe that these rules are sufficient. The topics should be included step by step into in-company training and continuing professional education. Internal coordination has proven to be more complex in 2008 and 2009 than originally expected. This means that we were unable to achieve the target we set ourselves of rolling out the Code in 2009. Nevertheless, in our opinion it made more sense to “sacrifice” that target and allow the internal coordination to take the time it needed.

Over and above this, we will be encouraging our suppliers and business partners to observe similar standards. In this context we adopted our SOLARWORLD Suppliers’ Code of Conduct in 2009.

Furthermore, SOLARWORLD signed up to the United Nations Global Compact in 2009 and has pledged to work for its ten Principles, and this includes making explicit reference to them in our Code of Conduct.

#### / 4.9 / **PROCEDURES OF HIGHEST GOVERNANCE BODY FOR OVERSEEING SUSTAINABILITY PERFORMANCE**

Since 2007 we have systematically mainstreamed economic, ecological and social aspects into our management instruments to consider them in a combined light. The SOLARWORLD Scorecard reflects these Group-wide indicators. ISO 14001 certification was carried out in Bonn and Freiberg for the first time in 2008; in 2010 the other sites and the Joint Venture in South Korea are to follow suit. Opportunities and risks are covered by our risk management. The Code of Conduct looks set to be adopted in 2010. → [4.6](#) • p. 229// Sustainable performance is measured annually and has been disclosed since 2007 according to the GRI reporting standards. For the first time, the present report appears together with a Communication on Progress describing how we have been implementing the Global Compact principles. → [Human resources 2009](#) • p. 105// [Report on expected development with its major opportunities and risks](#) • p. 114//

#### **PROCEDURES FOR EVALUATING THE HIGHEST GOVERNANCE BODY’S OWN PERFORMANCE**

The performance of the members of the Executive Board is assessed on the basis of individual performance agreements. Our integrated sustainability management → [Corporate management and control](#) • p. 040// thus also covers sustainability aspects, but there is no separate performance assessment in this respect. → [Statement on the corporate governance of the company](#) • p. 053//

/ 4.11 / **PRECAUTIONARY PRINCIPLE**

The precautionary principle has been institutionalized in our company by way of our risk management, quality and environmental management, sustainability management as well as the internal auditing. If there is any danger of serious or irreversible damage, uncertainties in scientific assessment should not serve as a reason for postponing cost-effective anti-pollution measures until a later date. This basic orientation is also underscored by our voluntary disclosures such as GRI reporting and participation in the Carbon Disclosure Project (CDP). → *Corporate management and control* • p. 040// *Report on expected development with its major opportunities and risks* • p. 114//

/ 4.12 / **EXTERNAL AGREEMENTS, PRINCIPLES OR INITIATIVES**⑦ **EXTERNAL AGREEMENTS, PRINCIPLES OR INITIATIVES**

Principles/agreements/initiatives	Time-frame	Locations	Established by/ Including	Motivation
Principles of the Global Compact	Since 2009	Group	United Nations	Voluntary
Application of ISO Standard 14001	Since 2008	Bonn, Freiberg	ISO	Voluntary
Work on Code of Conduct	Since 2007	Group	Employees	Voluntary
GRI-based reporting	Since 2007	Group	World-wide multi-stakeholder dialogue	Voluntary
PV Cycle → <i>Pooling silicon production and recycling</i> • p. 077//	Since 2007	Group	Cell and module manufacturers	Voluntary
NetJets Climate Initiative → 1.2 • p. 224// EN17 • p. 247//	Since 2007	Group	NetJets	Voluntary
Participation in the Carbon Disclosure Project (CDP)	Since 2005	Group	Institutional investors	Voluntary
Application of ISO Standard 14001	Since 2005	Freiberg (Solar Factory)	ISO	Voluntary
Application of ISO Standard 9001	Since 2003	Bonn, Freiberg, Madrid, USA	ISO	Voluntary

## 232 / 4.13 / MEMBERSHIPS

## ② VOLUNTARY MEMBERSHIP OF ASSOCIATIONS/ADVOCACY ORGANIZATIONS

Organization	Since	Member	Function
SEMI (Semiconductor Equipment and Materials Institute)	1978	SolarWorld Industries America*/ Jim Moreland	Member Silicon Wafer Committee
Camarillo Chamber of Commerce	1980	SolarWorld Industries America*/ Janet Gagnon	Member und Bronze Sponsor
VCEDA (Ventura County Economic Development Association)	1989	SolarWorld Industries America*/ Janet Gagnon	Member
FlaSEIA (Florida Solar Energy Industries Association)	1989	SolarWorld California LLC*/ Peter DeNapoli	Board member
SEIA (Solar Energy Industries Association)	1990	SolarWorld Industries America*/ Raju Yenamandra, Boris Klebensberger	Board members
ASQ (American Society for Quality)	1992	SolarWorld Industries America*/ Steve Hunter (since 1988)	Senior member
ANSI (American National Standards Institute)	1997	SolarWorld Industries America*/ Paul Norum (since 2006)	Member
IEC (International Electrotechnical Commission) Technical Committee 82	1997	SolarWorld Industries America*/ Paul Norum (since 2008)	US TAG (Technical Advisory Group)
UL/PV section	1997	SolarWorld Industries America*	Advisory Council member
IEEE (International Electrical and Electronics Engineers)	1998	SolarWorld Industries America*/ Paul Norum (since 2006)	Member of the PV Standards Committee
SESHA (Semiconductor, Environmental, Safety and Health Association)	1998	SolarWorld Industries America*/ Sergio Vasquez	Member
NFPA (National Fire Prevention Association)	1998	SolarWorld Industries America*/ Sergio Vasquez	Member
DGS (Deutsche Gesellschaft für Sonnenenergie) e.V., Munich	1998	SolarWorld AG	Member
Eurosolar, Bonn	1999	SolarWorld AG	Member
access e.V.	1999	Deutsche Solar AG	Member
FSEC (Florida Solar Energy Center)	2000	SolarWorld California LLC*/ Peter DeNapoli	Board member
Freiberger Interessengemeinschaft der Recyclings- und Entsorgungsunternehmen (F.I.R.E.) e.V.	2002	Deutsche Solar AG	Member
Dresdner Gesprächskreis der Wirtschaft und Wissenschaft e.V.	2002	Deutsche Solar AG	Member
Solar Alliance	2003	SolarWorld California LLC*/Janet Gagnon	Board Member
InnoRegio Freiberg e.V.	2003	Deutsche Solar AG	Member
Bundesverband Solarwirtschaft	2003	SolarWorld AG (formerly Deutsche Solar)	Member
Silicon Saxony e.V.	2003	Deutsche Solar AG	Member
VIK (Verband der industriellen Energie- und Kraftwirtschaft)	2005	Deutsche Solar AG	Member
SEBANE (Solar Energy Business Association of New England)	2005/2010	SolarWorld California LLC*/Janet Gagnon (stopped and restarted in 2010)	Member
VCREA (Ventura County Regional Energy Alliance)	2005	SolarWorld Industries America*/ Janet Gagnon	Advisory Board member of technical committee
European Photovoltaic Industry Association (EPIA), Brüssel	2006	Boris Klebensberger	Board member

Organization	Since	Member	Function
Stiftung "Technische Universität Bergakademie Freiberg"	2006	Prof. Dr. Peter Woditsch	Member of the foundation council
Stifterverband für die deutsche Wissenschaft	2006	Prof. Dr. Peter Woditsch	Regional Trustee in Central Germany
International Advisory Board of the Zentrum für Entwicklungsforschung (ZEF), University of Bonn	2007	Frank H. Asbeck	Member of the advisory council
Bundesverband Solarwirtschaft	2007	Frank H. Asbeck	Board Member
NYSEIA (New York Solar Industry Association)	2007	SolarWorld California LLC/Janet Gagnon	Board Member
OSEIA (Oregon Solar Industry Association)	2007	SolarWorld California LLC/Bob Beisner	Board Member
Museum König	2007	Frank H. Asbeck	Chairman of the Trustees of Alexander-Koenig-Gesellschaft
Hillsboro Chamber of Commerce	2007	SolarWorld Industries America/ Bob Beisner	Member
UnternehmensGrün	2007	SolarWorld AG	Member
CanSIA (Canadian Solar Industry Association)	2007	SolarWorld California LLC	Member
PV Cycle	2008	Dr. Karsten Wambach	President
Oregon University System Engineering & Technology Industry Council (ETIC)	2008	Bob Beisner	Board Member
Oregon Business Association	2008	SolarWorld Industries America/ Bob Beisner, Ben Santarris	Members
American Solar Energy Society	2008	SolarWorld California LLC	Member
CALSEIA (California Solar Energy Industry Association)	2008	SolarWorld California LLC/Janet Gagnon	Member
AriSEIA (Arizona Solar Energy Industry Association)	2008	SolarWorld California LLC/Janet Gagnon	Member
MSEIA (Mid-Atlantic Solar Energy Industries Association)	2008	SolarWorld California LLC/Janet Gagnon	Member
TREIA (Texas Renewable Energy Industries Association)	2008	SolarWorld California LLC/Janet Gagnon	Member
HSEA (Hawaii Solar Energy Association)	2008	SolarWorld California LLC/Janet Gagnon	Member
MDV-SEIA (Maryland DC Virginia Solar Energy Industry Association)	2008	SolarWorld California LLC/Janet Gagnon	Member
Valley Industry and Commerce Association	2008	SolarWorld California LLC/Janet Gagnon	Member
Solar Oregon	2008	SolarWorld California LLC/Janet Gagnon	Member
Oregon BEST (Oregon Built Environment and Sustainable Technologies Center)	2008	Gordon Brinser	Board Member
GTZ Biodiversity Initiative	2008	SolarWorld AG	Member
Board of Trustees of the Stiftung Mittelsächsisches Theater	2008	Mario Behrendt (since 2009)	Member
Energy Advisory Council of the City of Freiberg	2009	Mario Behrendt	Member
UN Global Compact	2009	SolarWorld AG	Member
Deutsche Gesellschaft für Qualität	2009	Jörg Müller	Member
SEMI (Semiconductor Equipment and Materials Institute)	2009	SolarWorld Industries America/ Jim Moreland	Member PV Standards Commission
CoSEIA (Colorado Solar Energy Industries Association)	2009	SolarWorld California LLC/Janet Gagnon	Member

Organization	Since	Member	Function
Westside Economic Alliance	2009	SolarWorld Industries America/ Ben Santarris	Member
SEPA (Single Euro Payments Area)	2010	SolarWorld California LLC/Janet Gagnon	Member
Council of the Technische Bergakademie Freiberg	2010	Mario Behrendt	Advisory member
German Chamber of Foreign Trade, South Korea	2010	SolarWorld Korea Ltd./ Jörg Walberer	Member
SEMI (Semiconductor Equipment and Materials Institute) Europe	2010	Deutsche Cell GmbH	Member
Organization for International Investment	2010	SolarWorld California LLC/Janet Gagnon	Member
National Association of Manufacturers	2010	SolarWorld California LLC/Janet Gagnon	Member
SiSoC (Silicon Solar Consortium)	2010	SolarWorld Industries America/ Ethan Good	Chairman of the Industry Advisory Board
Software Association of Oregon	2010	SolarWorld Industries America/ Ben Santarris	Member

\* This includes the former Shell Solar and/or Siemens Solar and/or Arco Solar.

#### / 4.14 / STAKEHOLDER GROUPS

The stakeholder groups involved in the decisions taken by SOLARWORLD are primarily employees, customers (wholesalers, installers, but also end users), suppliers of the SOLARWORLD Group, banks/creditors and governments/agencies. Shareholders are included as stakeholders in this section. Other stakeholders included here are analysts and brokers as intermediaries, Non-Governmental Organisations (NGOs), competitors, local residents, associations/trading communities, employees' representatives or organizations, the press and interested members of the public.

#### / 4.15 / SELECTION OF STAKEHOLDER GROUPS

In determining the stakeholder groups for our activities we use the following questions\*:

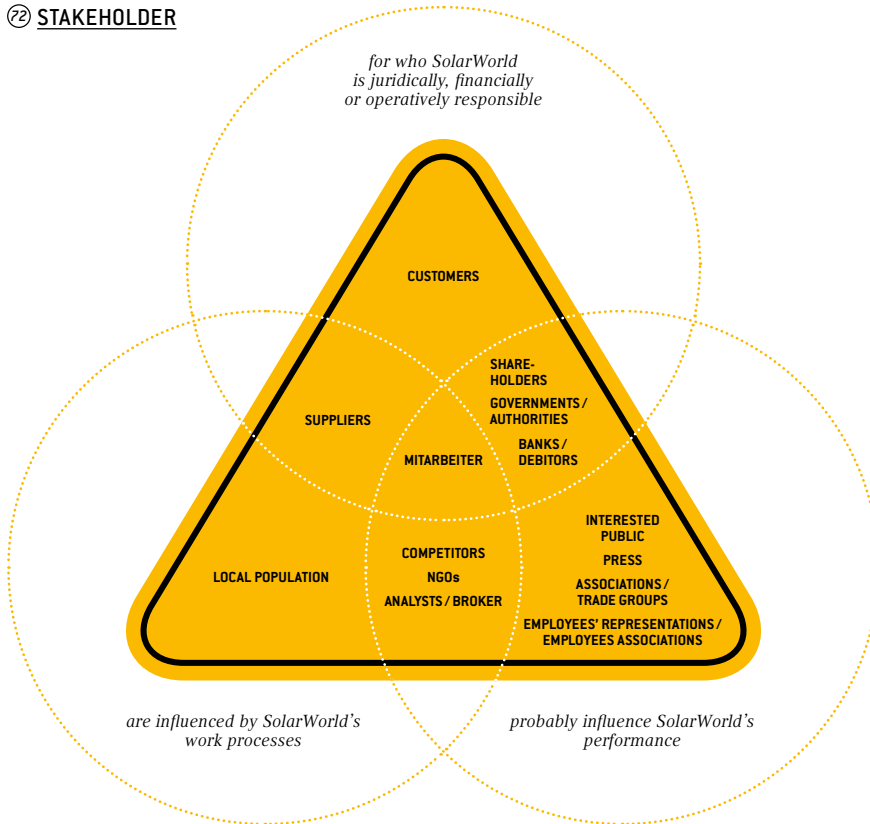
- Who are we responsible for (in legal/financial/operational terms)?
- Who is directly or indirectly affected by/dependent on our activities or the impact of such activities?
- Who is in a position to influence (hamper/promote) or decide about implementation of our activities?
- Who are we in close contact with or maintain close relationships with?
- Who has voiced their opinion on issues of relevance to us?
- Which groups (formed by demographic or other characteristics) are likely to be interested in our activities and the results of these activities?

\* Based on Mason and Mitroff, 1981, and the criteria of the AccountAbility Standards AA 1000 SES



Our main stakeholders are those for whom we are directly responsible:

**STAKEHOLDER**



The figure above provides an overview of our stakeholders based on the scheme underlying the AA1000 Standard. In 2009 a Stakeholder Analysis was performed in accordance with the AA1000 Stakeholder Engagement Standard to establish whether all stakeholder groups were being involved to an appropriate level. This process standard is made available by a member, the not-for-profit Institute of Social and Ethical AccountAbility. SOLARWORLD is currently not seeking certification.

**/ 4.16 / STAKEHOLDER ENGAGEMENT**

The needs of all stakeholder groups are currently already incorporated but they are analyzed to varying degrees of depth. An internal analysis is made for all stakeholder groups, based on information available within the company and in external studies. Regular surveys are carried out among our customers\* (wafer clients, wholesalers and installers) → *ESG 11-1 • p. 222 // Majority of customers rates service quality as good • p. 083 //*, suppliers → *Critical selection of suppliers pays off – supplier capital • p. 080 //* and employees. → *SolarWorld is one of Germany's best employers • p. 111 // Human resources – future development • p. 144 //* In the medium term, we hope to do this for other stakeholder groups, too. We also maintain close links with the communities at our sites. Moreover, as a member of various associations and advocacy groups and through our collaboration with scientific bodies we are engaged in regular exchanges of socio-political views with further stakeholders. We exchange ideas on topics like Life Cycle, Recycling and Sustainability among others with members of PV Cycle, the EPIA, Silicon Valley Toxics Coalition (SVTC), as well as within the Solar Energy Industry Association (SEIA). We also make our expertise available by way of panel discussions for example in Philadelphia (Institute of Electrical and Electronics Engineers) and at the SolarPower in Anaheim as well as through our participation in Task 12 on the subject of Environmental Health and Safety of the of the International Energy Agency

Photovoltaic Power Systems. In our Solar2World projects [www.solarworld.de/sustainability](http://www.solarworld.de/sustainability) we work closely with the local stakeholders (e.g. municipalities and NGOs) in order to offer solutions that will give the population the maximum benefit and can be continued by the local people themselves after completion of the project. As a result, the company is aware of the needs and able to take them into account in its decision-making processes.

\* So far, final customers can only be interviewed on an ad-hoc basis since such surveys still require a lot of time and effort.

When compiling this Report, we drew on specialist feedback from ratings agencies and sustainability experts. We are submitting our Report to the voting for the second “CR Reporting Award” for the online CorporateRegister.com [www.corporateregister.com](http://www.corporateregister.com) and the “GRI Readers’ Choice Awards 2010” <http://awards.globalreporting.org>. We also offer all stakeholders the opportunity to contact us any time via [placement@solarworld.de](mailto:placement@solarworld.de) and [sustainability@solarworld.de](mailto:sustainability@solarworld.de). Since 2009 stakeholders have had the alternative option of sending us a message – anonymously if they so wish – via the website.

The Communication on Progress achieved around the ten Principles of the Global Compact is made through Annual Group Report, which means it is available to all stakeholders. Stakeholder initiatives can also influence the implementation of these Principles, for example via networks built by/with stakeholders or standards requested by stakeholders.

## 23 STAKEHOLDERS

Stakeholders	Instruments
Employees	Direct contact, employee surveys, works councils, company suggestions scheme
Specifically applicants	Direct contact, company presentations
Customers (wholesalers, installers, final customers)	Direct contact, annual customer survey
Suppliers	Direct contact, supplier surveys
Shareholders	Direct contact, feedback after road shows, corporate news
Banks and creditors	Direct contact
Residents/local population	Direct contact in the event of concerns or complaints voiced; for Solar2World projects direct involvement in the project
<b>Other stakeholders</b>	
Analysts, brokers	Direct contact, feedback after road shows, investor days, corporate news
Regional governments, municipalities, local authorities, public authorities	Direct contact, interviews
Non-governmental organizations (NGOs)	Networks, discussion forums
The interested public	Reporting, corporate news
Workforce representatives, employee associations	Direct contact in negotiations
(Professional) associations, industrial trading groups	Direct contact via networks, trade fairs, etc.
Competitors	Market research, informal discussions
Press	Interviews, press releases

/ 4.17 / **KEY TOPICS AND CONCERNS RAISED BY STAKEHOLDERS**

SOLARWORLD is championing compulsory recovery in the solar industry in Europe. A similar debate is currently also being held in the United States. SOLARWORLD is involved in intensive discussions on this matter within the Solar Energy Industry Association (SEIA) and with the Silicon Valley Toxics Coalition (SVTC) to drive this issue forward there too (Principles 7-9, Global Compact).

In the reporting period, there were no extraordinary questions or concerns regarding the sustainability of our business operations not covered under other items of our GRI reporting.

/ 5. / **MANAGEMENT APPROACH (EC, EN, LA, HR, SO, PR)**

We hope to anchor the concept of sustainability throughout the Group well into the future with the implementation of an integrated management system. ➔ *Corporate management and control* • p. 040// We outline below how the individual aspects have been included in our approach.

**ECONOMIC**

Economic success is the fundamental condition for sustainability. It gives us the necessary freedom of action to take account of environmental and social aspects. The management report provides detailed information on this dimension.

➔ *Vision* • p. 002// *Strategy and action* • p. 033// *Corporate management and control* • p. 040// Our commercial success also contributes to the development of the national economy, e.g. by creating jobs and promoting sustainable energy supplies geared to the future.

**ENVIRONMENTAL**

Environmental aspects are relevant mainly in the processes, especially in production. Our aim is to take greater account of the environmental impacts of our business partners. We already estimate energy consumption throughout the entire value chain, i.e. beyond company boundaries. By adopting our Suppliers' Code, we have moved another step in that direction. Involving the widely diverse customer base of wholesalers and installers will be an even greater challenge.

To take systematic account of ecological aspects, we introduced environmental management systems according to ISO 14001 at our facilities in Bonn and Freiberg in 2007; the other sites and the joint venture in South Korea are to follow suit in 2010. ➔ *Interlinking of management tools* • p. 044// 77% of our suppliers are certified according to ISO 9001 and 30% are certified according to ISO 14001. ➔ *Critical selection of suppliers pays off – supplier capital* • p. 080// It goes without saying that our product – solar power – is also a critical aspect.

**SOCIETY/SOCIAL**

Our Code of Conduct sets out our ethical principles and behavioural rules and recommendations for all employees and Board members. It defines our working practices, our procedures to ensure compliance with human rights and acceptance of our social responsibility and product responsibility.

⑦4 **MANAGEMENT APPROACH**

Dimension	Main aspects
Economic (EC)	<ul style="list-style-type: none"> <li>Economic performance ➔ <i>Consolidated financial statements</i> • p. 147// <i>Competitive position and main sales targets</i> • p. 051// <i>Business development in 2010</i> • p. 063//</li> <li>Direct economic effects are included in our decision-making processes through our stakeholder analyses. ➔ <b>4.15</b> • p. 235// Thanks to our sustainable product and our growth (e.g. creation of jobs), the indirect economic impact of our business operations is to be assessed as positive.</li> </ul>

Dimension	Main aspects
Environmental (EN)	<ul style="list-style-type: none"> <li>• The environmental issues, especially the issues energy, water, emissions, discharge water and waste, are controlled by our environmental management. → <a href="#">Interlinking of management tools</a> • p. 044//</li> <li>• The use of materials is controlled by our procurement management. → <a href="#">Procurement</a> • p. 079//</li> <li>• Biodiversity is an aspect taken into account in planning new production sites. Our sales offices are not located in regions where they might impair biodiversity.</li> <li>• Our products and services are compatible with the sustainability approach.</li> <li>• Most of our packaging materials are recycled. → <a href="#">EN27</a> • p. 248//</li> <li>• Compliance with legal provisions is a key priority for us. This is also governed by our Code of Conduct.</li> <li>• Transportation services are performed by logistics service providers. The associated environmental effects are to be covered more comprehensively in our reporting.</li> <li>• Our Suppliers' Code of Conduct obliges our business partners to comply with all applicable environmental laws, provisions and standards and operate an efficient system to identify and remedy potential risks to the environment. Moreover, our suppliers are requested to ensure compliance with these standards by their sub-contractors and other business partners.</li> </ul>
Society/social (LA)	<ul style="list-style-type: none"> <li>• Employment, employee-employer relationship, initial and further training, health and safety, diversity and equal opportunities are part of our HR strategy → <a href="#">Human resources 2009</a> • p. 105// <a href="#">Human resources – future development</a> • p. 144//</li> <li>• Occupational health and safety forms an element of our quality management system. → <a href="#">Interlinking of management tools</a> • p. 044//</li> <li>• Diversity and equal opportunities are issues also covered by our Code of Conduct.</li> <li>• Occupational health and safety provisions, precautionary measures for operational failure, statutory pay and working hours as well as a ban on discrimination are also aspects covered by our Code of Conduct for Suppliers. Moreover, our suppliers are requested to ensure compliance with these standards by their sub-contractors and other business partners.</li> </ul>
Society/social (HR)	<ul style="list-style-type: none"> <li>• Investment and procurement practices, equal opportunities, freedom of association and right to collective bargaining as well as a ban on child labour, forced and compulsory labour are governed by our Code of Conduct and will be included in training schemes for executives.</li> <li>• Guidelines and procedures that are neutral regarding associations or trade unions: The recognition of the right to freedom of association is clearly expressed by, among other things, the existence of a works council (currently with 13 members), youth and trainee representatives, disability representatives and the collective bargaining agreement concluded between the company and the German trade union IG BCE. (This agreement applies at: Deutsche Solar AG, Deutsche Cell GmbH, Solar Factory GmbH and SolarWorld Innovations GmbH). Naturally we observe all the laws in this area (notably the German Industrial Relations Act or BetrVG). The statutory, collective bargaining and company rules (such as the company agreement on advertising vacancies) mean that we have transparent processes for selecting candidates, recruitment, transfer, promotion and dismissal.</li> <li>• The conditions for exercising a function in an association or trade union: It is always our aim to seek cooperation with the works council, and people who perform tasks for the works council or for the other bodies mentioned above are given the appropriate time off to do so and provided with the materials and space they need, as well as funding for further training, etc. Alongside day-to-day exchange, there is a regular meeting structure for the parties within the company and within the works council bodies. The works council and the youth and trainees representatives have their own pages/zones on the Intranet. These bodies can also use the notice boards (in all buildings on the Freiberg site) and send e-mails to employees. The trade union that organizes within the company (IG BCE) is also granted appropriate information and communication facilities. The works council and employees naturally also exchange information during open surgeries, workforce meetings and surveys.</li> <li>• Human rights clauses and the abolition of child labour and forced labour are included in our Suppliers' Code of Conduct.</li> <li>• Moreover, our suppliers are requested to ensure compliance with these standards by the sub-contractors and other business partners.</li> <li>• Any complaints are handled directly by the respective superior and/or the HR department. In order to maintain anonymity, there shall be SolarWorld ombudspersons from 2010 (originally planned for 2009 along with the Code of Conduct).</li> <li>• We offer training schemes for safety practices with regard to our business operations but we do not offer any specific training programs involving human rights aspects for our security staff (which isn't necessary because no private security personnel is deployed, apart from reception staff).</li> <li>• We respect the rights of indigenous people. To date there have not been any conflict constellations.</li> </ul>

Dimension	Main aspects
Society/social (SO)	<ul style="list-style-type: none"> <li>Community, corruption, politics, anti-competitive behaviour and compliance with the law are issues governed by our Code of Conduct.</li> <li>We also prevent corruption by means of the provision concerning inadmissible payments and bribery in our Suppliers' Code of Conduct for. Moreover, our suppliers are requested to ensure compliance with these standards by their subcontractors and other business partners.</li> </ul>
Society/social (PR)	<ul style="list-style-type: none"> <li>Customer health and safety, product and services labelling, advertising, protection of customer data and compliance with legal provisions are issues governed by our Code of Conduct.</li> </ul>

Dimension	Targets and performance
Economic (EC)	⑧ <i>Target achievement 2009 and targets 2010+</i> • p. 038// <i>Group management report</i> • p. 031//
Environmental (EN)	⑧ <i>Target achievement 2009 and targets 2010+</i> • p. 038// ➔ <i>Interlinking of management tools</i> • p. 044//
Society/social (LA)	⑧ <i>Target achievement 2009 and targets 2010+</i> • p. 038// ➔ <i>Corporate management and control</i> • p. 040// <i>Human resources 2009</i> • p. 105// <i>Human resources - future development</i> • p. 144//
Society/social (HR)	⑧ <i>Target achievement 2009 and targets 2010+</i> • p. 038//
Society/social (SO)	➔ <i>Statement on the corporate governance of the company</i> • p. 053//
Society/social (PR)	

Dimension	Policies
All dimensions	<ul style="list-style-type: none"> <li>Suppliers have to respect the SolarWorld Suppliers' Code of Conduct.</li> </ul>
Economic (EC)	<ul style="list-style-type: none"> <li>Taken into account in the framework of our quality management. ➔ <i>Interlinking of management tools</i> • p. 044//</li> <li>Behavioural rules, e.g. concerning anti-corruption or fair competition, are set out in our Code of Conduct. There are no specific policy guidelines on SolarWorld's economic obligations.</li> </ul>
Environmental (EN)	<ul style="list-style-type: none"> <li>Taken into account in the framework of our environmental management system. ➔ <i>Interlinking of management tools</i> • p. 044//</li> </ul>
Society/social (LA)	<ul style="list-style-type: none"> <li>Defined in the framework of our Code of Conduct. It also covers internationally recognized standards, e.g. those of the United Nations, the ILO and the Vienna Declaration.</li> </ul>
Society/social (HR)	
Society/social (SO)	
Society/social (PR)	

Dimension	Responsibility
All dimensions	1st level – Board, 2nd level – Managing Director
Environmental (EN)	3rd level – Divisional Manager and Environmental Manager
Society/social (LA)	3rd level – Divisional Manager and Quality Manager
Society/social (HR)	
Society/social (SO)	3rd level – Divisional Manager
Society/social (PR)	3rd level – Divisional Manager and Environmental Manager

Dimension	Training schemes and awareness-raising programs
Environmental (EN)	<ul style="list-style-type: none"> <li>Implemented by our quality and environmental management. Apart from this, our employees tend to show a very high level of environmental awareness due to the nature of our business operations.</li> </ul>
Society/social (LA)	<ul style="list-style-type: none"> <li>We already implement training schemes on health and safety. The additional topics will be included in our executive training programs in future.</li> </ul>

Dimension	Training schemes and awareness-raising programs
Society/social (HR)	• In future, topics shall be integrated in our executive training programs.
Society/social (SO)	
Society/social (PR)	
Dimension	Monitoring and follow-up
Environmental (EN)	• Monitoring activities are carried out by each individual site. Corporate environmental goals are defined every year and checked at year-end. More specific measures are taken at the individual locations. The Freiberg and Bonn sites have been certified according to ISO 14001. ➔ <i>Interlinking of management tools</i> • p. 044// Others are due to follow in 2010.
Society/social (LA)	• Monitoring is effected at the individual sites. Surveys are implemented on a regular basis. Measures to be taken by the Board and the HR department are derived from these surveys.
Society/social (HR)	• Monitoring and follow-up are partly initiated by the HR departments and partly directly at top management level.
Society/social (SO)	• Monitoring and follow-up at top management level.
Society/social (PR)	• Monitoring and follow-up are initiated by the corresponding departments and reported to the top management level.
Dimension	Key successes
Economic (EC)	• SolarWorld again winner of the Photon test. ➔ <i>Quality "Made by SolarWorld"</i> • p. 088//
Environmental (EN)	• HSSE Management System, adjusted to the demands of ISO 14001, established in the USA. • Number of reportable accidents reduced ➔ <i>LA7</i> • p. 251// • Reduction of resource consumption in Deutsche Cell (e.g. reduction of energy consumption and waste water volume) • Tetrafluorocarbon (CF4) no longer emitted (previous year: 0.44e tons). ➔ <i>EC1</i> • p. 242// • Energy efficiency of the Holding strongly improved: no use of fossil fuels, power consumption cut, own generation (PV) on roof surfaces which covers about 50% of consumption. ➔ <i>Innovation report</i> • p. 090//
Society/social (LA)	Progress in data acquisition and disclosure (LA1, LA2, LA7, LA10, LA13, LA14).
Society/social (HR)	• "Germany's Best Employer 2010" of the Great Place to Work® Institute: No. 55 (previous year: No. 57) • Graduates' Barometer: No. 15 • Share of trained employees: 89 (previous year: 61) per cent ➔ <i>Human resources 2009</i> • p. 105//
Society/social (SO)	➔ <i>Statement on the corporate governance of the company</i> • p. 053//
Society/social (PR)	
Dimension	Key shortcomings
All dimensions	• No comprehensive information possible for all indicators as some data are not yet available in this form.
Environmental (EN)	• Increase of resource consumption in Deutsche Solar due to the increase in production
Society/social (LA)	• Staff turnover increased at our US locations due to restructuring measures: 9.3 (previous year: 3.6) per cent • Increase of absenteeism to 3.4 (previous year: 2.5) per cent
Dimension	Key opportunities and risks
All dimensions	➔ <i>Report on expected development with its major opportunities and risks</i> • p. 114//
Economic (EC)	

Dimension	Key opportunities and risks
Environmental (EN)	<ul style="list-style-type: none"> <li>• Opportunities for solar energy arise from the increasing scarcity of fossil fuels and continuing climate change → <a href="#">EC2</a> • p. 242//</li> <li>• Risks are inherent in production but have to be considered as low in comparison with other sectors. They are mapped and controlled via our environmental management → <a href="#">Interlinking of management tools</a> • p. 044// and our health and safety management.</li> </ul>
Society/social (LA)	<ul style="list-style-type: none"> <li>• Opportunities arise from our positioning as a responsible Group in international competition.</li> <li>• Risks derive primarily from production with regard to health and safety, but compared with other sectors they should be rated as small. Other risks are the potential loss of credibility and sanctions that would be imposed if fundamental principles were violated.</li> </ul>
Society/social (HR)	
Society/social (SO)	
Society/social (PR)	
Dimension	Major changes to systems or structures in the reporting period in order to improve performance
Economic (EC)	→ <a href="#">Group management report</a> • p. 033//
Environmental (EN)	<ul style="list-style-type: none"> <li>• Improved waste recycling (broken quartz, used wire, plastic film, wastewater sludge, wood waste)</li> <li>• Improved registration (electronic incident report tracking system): the system notifies management directly of incidents (area safety and environment), documents the facts and monitors counter-measures.</li> <li>• Improved Job Safety Analyses: the tool serves early detection of hazards, identification of job-related risks, risk prioritization and the implementation of preventive measures)</li> </ul>
Society/social (LA)	→ <a href="#">Human resources 2009</a> • p. 105// <a href="#">Major business events 2009</a> • p. 037// <a href="#">Business development in 2009</a> • p. 063//
Society/social (HR)	
Society/social (SO)	
Society/social (PR)	→ <a href="#">Statement on the corporate governance of the company</a> • p. 053//
Dimension	Key strategies and procedures for implementing policies or achieving goals
Economic (EC)	• Total Productive Management → <a href="#">Interlinking of management tools</a> • p. 044//
Environmental (EN)	• Environmental targets ⊕ <a href="#">Target achievement 2009 and targets 2010+</a> • p. 038//
Society/social (LA)	<ul style="list-style-type: none"> <li>• Employer Branding ⊕ <a href="#">Target achievement 2009 and targets 2010+</a> • p. 038//</li> <li>• Program for executive development → <a href="#">Promoting employees, developing talents, shaping growth</a> • p. 108//</li> <li>• Signing of Global Compact of the United Nations → <a href="#">Letter from the Chairman</a> • p. 213//</li> <li>• Approval of Supplier Code of Conduct → <a href="#">4.8</a> • p. 230//</li> </ul>
Society/social (HR)	
Society/social (SO)	
Society/social (PR)	

Further details about our management systems are provided in the management report. → [Sustainable corporate management](#) • p. 040//

## PERFORMANCE INDICATORS

The error margin (i.e. potential inaccuracies in estimates or measurements) in our quantitative data is so small that it does not impair decision-making by stakeholders. The quantitative statistical error tolerance cannot be calculated. More detailed information on the methods is provided for each of the estimates outlined below.

### ECONOMIC PERFORMANCE INDICATORS

#### / EC1 / CORE // DIRECT ECONOMIC VALUE GENERATED AND DISTRIBUTED

##### 25 VALUE CONTRIBUTION

Directly generated financial value	Value 2009	Value 2008	Comments
a) Revenues	1,088,493 k€	959,260 k€** (prev.: 969,978 k€)	Sales revenues + Other operating earnings + Net result from shares value at equity + Interest earnings
<b>Distributed financial value</b>			
b) Operating costs	-811,639 k€	-573,044 k€** (prev.: -586,209 k€)	Changes in inventories of finished goods + Own work capitalized + Cost of materials + Depreciation/amortization + Other operating expenses
c) Salaries and company benefits	-99,783 k€	-90,130 k€	Staff cost
d) Payments to capital providers	-45,319 k€	-107,417 k€** (prev.: -104,970 k€)	Interest expenses + Net result from financial instruments
e) Payments to government	-46,193 k€	-56,838 k€***	Income tax (for split between domestic and international taxes, see → <i>Consolidated financial statements</i> • p. 180//)
f) Investments in the community*	-264 k€	-277 k€	Donations
<b>Retained financial value</b>	<b>85,295 k€</b>	<b>131,554 k€</b>	

\* Donations in money and in kind (donations to political parties are not included)

\*\* Exchange rate gains and losses now reported in the Financial Result

\*\*\* Editorial error (correct in 2008 management report), therefore deviation from the total of originally 131,964 k€)

→ *Comments on the individual items of the income statement* • p. 176//

Reasons for partial reporting: Data on this indicator disclosing more information than our Group management report and Group financial statements are confidential (Explanation Type 3). Moreover, we do not break results down by country and region because we currently do not regard these as significant, and we put Group performance in the foreground (Explanation Type 1).

#### / EC2 / CORE // FINANCIAL IMPLICATIONS DUE TO CLIMATE CHANGE

We take account of the opportunities and risks related to climate change for our business activities. → *Renewable energies gaining importance* • p. 128// Opportunities arise from the upswing in the market for renewable energies, offering a competitive edge over conventional forms of energy. → *Opportunities* • p. 128// Risks for companies are higher insurance premiums due to more frequent storms/fires/drought periods. The financial consequences of climate change were not estimated on a detailed quantitative basis because they are to be considered as positive overall in view of the nature of our business activities. Our company is not exposed more strongly than other companies to risks such as damage from more frequent storms/fires or costs resulting from drought periods and flooding. Current risks are largely covered by our insurance policies. → *Individual risks* • p. 118//



**/ EC3 / CORE // COVERAGE OF ORGANIZATION'S DEFINED BENEFITS PLAN**

In Germany, SOLARWORLD AG offers a company pension scheme for employees in the form of “direct insurance” and the “pension fund”, either funded by the employer or with transformation of salary into pension rights (with employer subsidy). Employees who were employed at the former Munich site are entitled to “direct pension commitments”, funded directly by the company. In 2009 the commitments amounted to 7,995 (previous year: 7,912) k€. ➔ [Noncurrent and current provisions](#) • p. 192//

In the USA, there is a program for retirement savings, the SOLARWORLD 401k program. Under this program, employees may receive a company match of funds at a rate of 0.50 US\$ for every 1.00 US\$ contributed by the employee – up to a maximum of 3% of annual base rate of pay. All 401k regulations in the USA tax code apply to this program, which is administered by Diversified Investment Advisors. Eligibility for this program begins after 90 days of employment in regular status and is a voluntary program for all eligible employees. Participation rates vary by work site and are purely voluntary. Participation rates are 42% of regular employees as of the end of 2009.

There are no specific programs at the other sites. The amount paid into the programs is determined by the employees on conversion of compensation. Where funding comes from the employer, the amount is specified in the contract of employment. Participation is voluntary. On the basis of the data available to us, no statement can be made concerning the extent to which this will be used since this data has not been collected on a uniform basis so that it is impossible to draw up statistics (Explanation Type 2). We hope to address this issue in the medium term.

**/ EC4 / CORE // FINANCIAL ASSISTANCE RECEIVED FROM GOVERNMENT**

Significant financial assistance received from government: In the reporting period, investment grants of 10,461 (previous year: 10,210) k€ were received and research grants of 1,813 (previous year: 2,353) k€. There is no government body holding shares in SOLARWORLD.

**/ EC6 / CORE // SELECTION OF LOCALLY BASED SUPPLIERS**

The term “locally based” is defined in a way that is analogous to our segments. There is no company guideline under which preference is given to local suppliers. The geographical position plays a minor role in selecting suppliers since the equipment and commodity market is an international market. Most suppliers (95 percent or more, depending on the product at stake) are based in industrialized countries. In South Korea we are working with a local equipment manufacturer SOLARPARK ENGINEERING CO. LTD. in our joint venture SOLARWORLD KOREA LTD. For our (not-for-profit) Solar2World projects we involve local partners as far as possible (in particular for rack technology and installation).

**/ EC7 / CORE // LOCALLY BASED HIRING OF EMPLOYEES**

We are an international Group and mainly recruit locally at our various sites, although there is no company guideline on this. We try to keep the number of “expatriates” down, but we need some employees (senior executives) from our existing subsidiaries and from Head Office at the location because that is important for harmonization of the various facilities in the framework of the acquisition of former Shell activities. Under various non-discrimination provisions like the federal agreement on application of equal opportunities legislation (Germany), action plans (USA) and our Group-wide Code of Conduct local candidates must not be given preference nor discriminated against in recruitment processes.

Percentage of local senior executives: Germany 100 (previous year: 100) per cent, USA 81 (previous year: 83) per cent, Spain: 100 (previous year: 100) per cent, Singapore 0 (previous year: 100) per cent and South Africa 100 (previous year: 100) per cent. The definition of “local” follows IAS 14 and thus corresponds to the “economic environment”; it is therefore analogous to our segments. ➔ [Geographical segments](#) • p. 156// We define “senior management” here as first-level managers. We do not use the definition of the German Industrial Relations Act, since this would not be applicable to the whole of the Group.

## 244 / EC8 / CORE // INFRASTRUCTURE INVESTMENTS AND SERVICES PROVIDED MAINLY FOR PUBLIC BENEFIT

Our Solar2World projects actively involve the local stakeholders (i.e. members of the community, users) in the project design. Additional investments in infrastructure and services provided mainly for public benefit were not made.

### ENVIRONMENTAL PERFORMANCE INDICATORS

#### SUMMARY STATEMENT ON THE FOLLOWING ENVIRONMENTAL FIGURES:

In Deutsche Solar AG an increase of consumption figures is recognisable. This trend is caused by the increase in production and the associated increase in the number of production plants in operation. For this reason both the auxiliary materials and consumables but also the waste materials increased since larger quantities of packaging materials but also solvents and absorbents as well as filter materials are used. In Deutsche Cell a declining trend can be observed which can be explained by the environmental targets set. These stipulations include the requirement to recover energy from the cooling cycle and to reduce energy consumption in general. Another environmental target was to reduce the employment of auxiliaries and consumables in production which had a positive influence on the indicator EN22. For water consumption one can also observe a declining trend. The Solar Factory has an increased direct and indirect energy consumption which results from the capacity increase in production.

At the Camarillo location consumption figures in comparison with 2008 could be cut due to changes in the production department: The wafer and cell production were closed and the module plant was consolidated. In contrast consumption figures at the Hillsboro site went up to the expansion of the location and the increase in production.

At the Bonn location power consumption per employee and working day as well as water consumption per employee declined. The new buildings of the Holding company no longer use fossil fuels for heating. Also the volume of residual waste went down (by one third in comparison with the previous year). What is more, SOLARWORLD was able to cut the waste disposal costs for the packaging material of the modules brought into circulation by almost 50% by way of a new waste disposal contract.

## / EN1 / CORE // MATERIALS USED

Exact disclosure of the materials used by weight and volume is not possible, however, since this is confidential business information. Since we do not publish our production figures, either, we cannot disclose any exact volumes for usage of materials (Explanation Type 3). The material used consists almost exclusively of non-renewable substances but a large proportion is capable of recycling.

In our production, we use the following substances that are generally classified as dangerous: hydrogen fluoride (HF), lead (Pb), nitric acid (HNO<sub>3</sub>), phosphorous oxychloride (POCl<sub>3</sub>), silane (SiH<sub>4</sub>), sodium hydroxide (NaOH), and minimal quantities of ammonia (NH<sub>3</sub>). Tetrafluorocarbon (CF<sub>4</sub>) is no longer emitted (previous year: 0.44e tonnes).

## / EN2 / CORE // RECYCLING INPUT MATERIALS

The rated etching capacity of our recycling unit SOLARMATERIAL for recovery of silicon is currently 1,700 tonnes per annum, thanks to technical improvements and the elimination of production bottlenecks. This core competency is of high strategic relevance. For this reason we cannot disclose exact quantities, as this information is subject to confidentiality (Explanation Type 3). ☺ *Procurement* • p. 079 // Also, we have our packaging material recycled. ☺ *EN27* • p. 248 // Other materials occurring in the course of the production of solar products are reused by us internally but have so far not been statistically recorded (Explanation Type 2). We intend to address this issue in the medium term. We have to analyze the possible data depth of such disclosures since some details have to be treated as confidential (Explanation Type 3).

**/ EN3 / CORE // DIRECT PRIMARY ENERGY CONSUMPTION**

Direct energy consumption relates to natural gas, heating oil, diesel as well as gasoline and in 2009 amounted to 46,877e (previous year: 36,313) MWh, i.e. 168,757,199e (previous year: 130,726,800) MJ. These figures relate to the sites in Germany (Freiberg and Bonn) and the USA (Camarillo and Hillsboro). No data were available for the sales offices in Spain, South Africa and Singapore, but these amounts are only minor and therefore not material (Explanation Type 1). For the CDP these consumptions were estimated on the basis of the number of employees to be 24,167e (previous year: 32,667e) kWh. Updated figures can be made available for the reporting in the context of the CDP (May 2010).

**/ EN4 / CORE // INDIRECT PRIMARY ENERGY CONSUMPTION**

Indirect energy consumption was 321,020e (previous year: 233,946) MWh, with electricity accounting for 320,355e (previous year: 233,190e) MWh and district heating accounting for 665e (previous year: 756) MWh. These data apply to the sites in Germany (Freiberg and Bonn) and the USA (Camarillo and Hillsboro), Spain and Singapore. No data were available for the sales office in South Africa (component of the local rent), but these amounts are only minor and therefore not material (Explanation Type 1). For the CDP these consumptions were estimated on the basis of the number of employees to be 73,043e (previous year: 71,995e) kWh. Updated figures can be made available for the reporting in the context of the CDP (May 2010).

For our Joint Venture SOLARWORLD KOREA LTD. we collected data for the first time in 2009. The consumption was 5.291e MWh (not included in the group figures).

An estimate of the megajoules (MJ) required to generate the primary energy for the production of the secondary energy (based on individual fuel consumption, standard figures for power and heat or estimated figures) was not yet possible due to the data situation (Explanation Type 2) and is to be tackled in the medium term. It is currently being examined how the exclusive use of power from renewable sources can be implemented in the best possible way over the long term. The share of renewable energy sources in purchased power amounts to 3.53e (previous year: 10.17) per cent for the SOLARWORLD Group (except the sales offices in Spain, South Africa and Singapore).

\* The share only accounted for by SolarWorld AG was estimated as the invoices in conjunction with the move of the Holding company still need to be checked.

\*\* This year the share of renewable energies was recorded systematically for the first time. Information is only available for the German location. On this basis we cannot confirm our estimate of the year 2008 of 69 per cent (Annual Group Report 2008) which was made on the basis of the energy mix data.

**/ EN8 / CORE // TOTAL WATER WITHDRAWAL**

Total water withdrawal was 1,115,767e (previous year: 845,961e) m<sup>3</sup>, broken down into surface water of 481,931e (previous year: 481,931e) m<sup>3</sup> and water from municipal utility supply of 633,836e (previous year: 364,030e) m<sup>3</sup>. In the year 2009 a quantity of 206,520e (previous year: 121,162e) m<sup>3</sup> of water was reused, i.e. 7.28e (previous year: 12.42e) per cent of the total water withdrawal. These data apply to the sites in Germany (Freiberg and Bonn) and the USA (Camarillo and Hillsboro). As the last invoices for the year 2009 had not yet come to hand we are working with a projection. At the time of the data acquisition we could not yet communicate any official figures for the individual locations for the year 2008 and therefore had to fall back on figures of previous years. No data were available for the sales offices in Spain, South Africa and Singapore, but these amounts are minor and therefore not material (Explanation Type 1). Our joint venture JOINT SOLAR SILICON (silicon production) uses water mainly for cooling purposes, operating in a closed-circuit system. For our Joint Venture SOLARWORLD KOREA LTD. we recorded data for the first time in 2009. 5,649e m<sup>3</sup> of water were taken out (not included in the group figures).

**/ EN11 / CORE // LAND IN OR ADJACENT TO PROTECTED AREAS OR AREAS OF HIGH BIODIVERSITY VALUE**

We already provided detailed disclosures on this range of topics in our report for 2007. We do not operate any facilities located in or adjacent to protected areas or comprise any areas with high biodiversity outside protected areas.

246 / EN12 / CORE // IMPACT ON BIODIVERSITY

Our activities, products or services at our sites do not have any major impacts on biodiversity in protected areas or in areas of high biodiversity outside protected areas.

BE INDEPENDENT	BE SUSTAINABLE	BE SUCCESSFUL																					
<p><b>FACTS: POSITIVE CO<sub>2eq</sub>-BALANCE</b></p> <p>We systematically record and disclose our Group-wide greenhouse gas emissions. Continual gains in energy and materials efficiency enable us to improve the overall processes in integrated fashion, both economically and environmentally. → <a href="#">Innovation report</a> • p. 090 // If we set the CO<sub>2eq</sub> emissions saved by our modules against the CO<sub>2eq</sub> emissions caused by our company, the resulting CO<sub>2eq</sub> balance for SolarWorld is positive.</p> <ul style="list-style-type: none"> <li>• Emissions saved are 33 times as high as Group-wide emissions.</li> <li>• Group-wide CO<sub>2eq</sub> emissions: approx. 139 (previous year: 96*) thousand tCO<sub>2eq</sub>.</li> <li>• Savings by solar power modules sold in 2009 throughout the average module service life of 25 years: approx. 4.6 (previous year: 3.1) mtCO<sub>2eq</sub>*</li> <li>• Costs of avoided environmental damage: approx. 319 (previous year: 220) m€.</li> </ul> <p><small>* Calculation based on insolation patterns and energy mix prevailing in Germany</small></p> <p>However, this balance only includes the greenhouse gas emissions arising within the Group. A thorough analysis of the product life cycle would have to include the emissions of our upstream suppliers and service providers. According to our estimates, SolarWorld emissions account for about 35% of the total emissions caused throughout the life cycle of the product. The emissions generated by suppliers and service providers account for the other 65%.</p> <p>The subject of recycling plays an important role in the reduction of the contribution to global warming: For example, SolarWorld was able in the year 2008 to reduce the Global Warming Potential by 14.977 tCO<sub>2eq</sub> (37,4 tCO<sub>2eq</sub>/MW). (Data for the year 2009 are not yet available at the present moment.)</p> <p><b>②6 CLIMATE PROTECTION</b></p> <p><i>Sources: SolarWorld; International Energy Agency (IEA)</i></p> <table border="1" style="margin-top: 10px; width: 100%; border-collapse: collapse;"> <caption>Climate Protection Data (2004-2009)</caption> <thead> <tr> <th>Year</th> <th>CO<sub>2eq</sub> emissions avoided (million tons)</th> <th>Environmental damage avoided (million €)</th> </tr> </thead> <tbody> <tr> <td>2004</td> <td>0,6</td> <td>38,9</td> </tr> <tr> <td>2005</td> <td>1,2</td> <td>84,2</td> </tr> <tr> <td>2006</td> <td>1,9</td> <td>129,7</td> </tr> <tr> <td>2007</td> <td>2,1</td> <td>144</td> </tr> <tr> <td>2008*</td> <td>3,1</td> <td>220</td> </tr> <tr> <td>2009</td> <td>4,6</td> <td>319</td> </tr> </tbody> </table> <p><small>*The calculation was adjusted by the new emission factors of the International Energy Agency (IEA).</small></p>			Year	CO <sub>2eq</sub> emissions avoided (million tons)	Environmental damage avoided (million €)	2004	0,6	38,9	2005	1,2	84,2	2006	1,9	129,7	2007	2,1	144	2008*	3,1	220	2009	4,6	319
Year	CO <sub>2eq</sub> emissions avoided (million tons)	Environmental damage avoided (million €)																					
2004	0,6	38,9																					
2005	1,2	84,2																					
2006	1,9	129,7																					
2007	2,1	144																					
2008*	3,1	220																					
2009	4,6	319																					

**/ EN16 / CORE // GREENHOUSE GAS EMISSIONS**

Calculation of greenhouse gas emissions includes the companies under the full operational control of SOLARWORLD (excluding the companies in which SOLARWORLD only holds an interest, e.g. joint ventures). The data were determined using the calculation tools of the GHG Protocol of the CDP. The data for direct primary energy consumption at the sales and distribution locations in Spain, South Africa and Singapore were estimated on the basis of the number of staff and the consumption figures at the sales location in Germany. The data for indirect primary energy consumption at the sales and distribution location in South Africa were estimated on the basis of the number of staff and the consumption figures at the sales location in Spain. Furthermore, the emissions of the vehicle fleet were estimated on the basis of the previous year's values (mileage). We are not aware of the potential error rates caused by the estimates and the calculation aids.

In the year 2008 the provisional sum of direct and indirect emissions thus amounted to 139,278e (previous year: 96,310.4e) tCO<sub>2eq</sub>. Updated figures can be made available for the reporting in the context of the CDP (May 2010).

\* As in the previous year the most up-to-date value of the International Energy Agency (IEA) was used to extrapolate the emissions of the electricity mix. The value for the year 2008 has been updated (as of: CDP, May 2009)

**/ EN17 / CORE // OTHER GREENHOUSE GAS EMISSIONS**

This indicator includes emissions of our suppliers, the vehicle fleet of our logistics service companies, emissions in the course of business travel, and emissions for the returns system for packaging and used products. However, these data have not yet been recorded to date so that it is impossible to draw up statistics (Explanation Type 2). Our examination of the facts has shown that the acquisition of these data would be extremely difficult. There might also be a certain amount of double counting since other companies also report their figures within the framework of the CDP. We want to monitor this point in the long term but initially want to concentrate mainly on reducing our indirect greenhouse gas emissions (e.g. from energy consumption). Our products themselves do not generate any emissions. The modules/systems which we sold in 2008 will save 4.6e (previous year: 3.1e) million tCO<sub>2eq</sub> over a period of 25 years. This avoids environmental damage worth 319e (previous year: 220e) m€. Updated figures can be made available for the reporting in the context of the CDP (May 2010). We compensate a part of our emissions via participation in the Climate Initiative of NetJets. In 2009, these emissions amounted to 240.68 (previous year: 266.74) tCO<sub>2eq</sub>. A review is currently underway of how we can best compensate for the emissions (CO<sub>2eq</sub>) of all our business air travel over the long term.

\* Determined with new emission data. The most up-to-date value in this year's reporting was substantially higher, which is why the emission volume (in tCO<sub>2eq</sub>) for 2008 was corrected.

**/ EN19 / CORE // EMISSIONS OF OZONE-DEPLETING SUBSTANCES**

There are no emissions of ozone-depleting substances.

**/ EN20 / CORE // NO<sub>x</sub>, SO<sub>x</sub> AND OTHER AIR EMISSIONS**

Air emissions in the USA in 2009 amounted to 3.3e (previous year: 1.85e) tonnes NO<sub>x</sub>, 0.20e (previous year: 0.20e) tonnes SO<sub>x</sub>, 10.16e (previous year: 6.91e) tonnes VOC, 0.22e (previous year: 0.64e) tonnes of hazardous air pollutants, 0.44e (previous year: 0.34e) tonnes of particulate matter (PM10) as well as 1.64e (previous year: 1.13e) tonnes of other standard air emissions, which are regulated by legislation. These substances occur only in our US production and are below the legal threshold values. The figures are currently estimated. The higher values are attributable to the strong growth in production. In the following year increased values are again expected for this reason. At the time of the acquisition of the data individual locations were not yet able to communicate official figures for the years 2009 and 2008 which is why we had to fall back on figures of previous years.

## 248 / EN21 / CORE // TOTAL WATER DISCHARGE

Total water discharge was 893,146e (previous year: 820.449e) m<sup>3</sup>. 886,710e (previous year: 814,113e) m<sup>3</sup> were discharged to the municipal drainage system. Total precipitation water discharge is not measured. In Germany, a charge is paid based on built-up area. It is therefore impossible to draw up any statistics (Explanation Type 2). We intend to address this issue in the medium term. The above figure relates to the sites in Germany (Freiberg and Bonn) and the USA (Camarillo and Hillsboro). The figures are currently estimated. As the last invoices for the year 2009 had not yet come to hand we worked with a projection. At the time of the data acquisition individual locations could not communicate any official figures for the year 2008 either so that we had to fall back on the figures of previous years. No data were available for our sales offices in Spain, South Africa and Singapore, but these amounts are minor and therefore not material (Explanation Type 1). In the year 2009 a total of 206,520e (previous year: 121,162e) m<sup>3</sup> of our water was reused. ➔ EN8 • p. 245 // Data on the precise reprocessing method, on water reuse by other organizations as well as on water quality for the total volume of waste water/process water (e.g. BOD (Biochemical Oxygen Demand) or TSS (Total Suspended Solids)) have so far not been recorded and appropriate statistics can therefore not be prepared (Explanation Type 2). We want to tackle this point in the medium term.

## / EN22 / CORE // WASTE BY TYPE AND DISPOSAL METHOD

Total weight of waste was 13,010e (previous year: 9,383e) tonnes. Of this total, hazardous waste accounted for 2,806e (previous year: 3,471e) tonnes and non-hazardous waste for 10,204e (previous year: 5,911e) tonnes. 37e (previous year: 10e) per cent of non-hazardous waste was recycled group-wide. At the Camarillo site, 100% of the hazardous waste was recycled. Details on other disposal methods have so far not been recorded which is why statistics on this topic cannot be prepared (Explanation Type 2). We want to tackle this point in the medium term. The data relate to the sites in Germany (Freiberg and Bonn) and the USA (Camarillo and Hillsboro). The figures are currently estimated. As the last invoices for the year 2009 had not yet come to hand we worked with a projection. At the time of the data acquisition individual locations could not communicate any official figures for the year 2008 either so that we had to fall back on figures of previous years. No data were available for our sales offices in Spain, South Africa and Singapore, but these amounts are minor and therefore not material (Explanation Type 1). For our Joint Venture SOLARWORLD KOREA LTD. we recorded the data for the first time in 2009. A total of 1,127e tonnes was produced (not included in the group figures).

## / EN23 / CORE // SIGNIFICANT SPILLS

In the reporting period, as in the previous year, there were no significant spills (chemicals, oils, fuels).

## / EN26 / CORE // INITIATIVES TO MITIGATE ENVIRONMENTAL IMPACTS

The products of SOLARWORLD have no significant environmental impact in terms of material input, water consumption, emissions, discharge water, noise or waste. The modules can be recycled at the end of their useful lives. The sealed surface amounted group-wide to a total of 392,697 (previous year: 392.697) m<sup>2</sup>. We also recorded these data for our Joint Venture SOLARWORLD KOREA LTD.: The sealed surface amounted to 82,397 m<sup>2</sup> (not included in the group figures).

## / EN27 / CORE // PACKAGING MATERIALS

The composition of our packaging material changed in 2009. It now consists of wood, card and plastics (stacking corners, straps, stretch film). The packaging serves to protect our goods during transportation, rather than to fulfil advertising purposes. In Germany we have contracted out recycling and reclamation to Interseroh Dienstleistungs GmbH. 100 per cent of the material is recycled (type separated), with 100 per cent directly reused. The duly notified quantities of authorized packaging are determined by Interseroh in accordance with the inspection specification (as per September 2007) mainly on the basis of purchasing statistics, invoices and delivery notes and checked by an auditor in the subsequent year. Materials taken back via another collection system or taken back under our own collection system and reused, and packaging shown to have been exported, are not included in these figures. In 2009, the respective weight of packaging was 872 (previous year: 448) tonnes. In the USA we internally recycle most of our packaging materials used at the US locations. At our sales offices in Spain, South Africa and Singapore, the only waste materials are office and kitchen waste, which are disposed of in accordance with the respective national legislation applicable. These data have not yet been recorded at Group level so that it is impossible to draw up any statistics (Explanation Type 2). We intend to address this issue in the medium term.

/ EN28 / **CORE // SANCTIONS FOR NON-COMPLIANCE WITH ENVIRONMENTAL LAWS AND REGULATIONS**

As in the previous year, no significant fines or non-monetary sanctions were imposed on SOLARWORLD for non-compliance with environmental laws and regulations. This also applies to the joint ventures of SOLARWORLD.

## SOCIAL PERFORMANCE INDICATORS

/ LA1 / **CORE // TOTAL WORKFORCE BY EMPLOYMENT TYPE, EMPLOYMENT CONTRACT AND REGION**

At the end of 2008 the total workforce was 1,825 (previous year: 1,420) employees and 673 (previous year: 534) temporary workers. ➔ *Securing sustainable growth with strategic personnel management • p. 105 //*

⊗ **TOTAL WORKFORCE BY EMPLOYMENT TYPE, EMPLOYMENT CONTRACT AND REGION**

	Germany	USA	Spain	Singapore	South Africa	Group
Total headcount (incl. temporary staff)	1888 (1625)	822 (855)	4 (5)	8 (10)	3 (3)	2725 (2498)
Total headcount (excl. temporary staff)	1341 (1198)	644 (609)	4 (5)	8 (10)	3 (3)	2000 (1825)
Employees (excl. trainees, Executive Board)	1255 (1115)	644 (609)	4 (5)	8 (10)	3 (3)	1914 (1742)
Women	239 (207)	174 (128)	1 (1)	2 (3)	2 (2)	418 (341)
Men	1016 (908)	470 (481)	3 (4)	6 (7)	1 (1)	1496 (1401)
Part-time workers	35 (19)	1 (1)	0 (0)	0 (0)	0 (0)	36 (20)
Women	26 (13)	1 (0)	0 (0)	0 (0)	0 (0)	27 (13)
Men	9 (6)	0 (1)	0 (0)	0 (0)	0 (0)	9 (7)
Employees on permanent contract	1186 (1099e**)	0 (0)	4 (5)	8 (10)	3 (3)	1201 (1117)
Women	230 (204e**)	0 (0)	1 (1)	2 (3)	2 (2)	235 (210)
Men	956 (895e**)	0 (0)	3 (4)	6 (7)	1 (1)	966 (907)

2008 values in parentheses

\* Correction: In the 2008 Annual Group Report the figure 11 was corrected.

\*\* Values for the Bonn location were estimated.

In the United States in particular, legal differences (weak protection against dismissal, employment contracts frequently not set out in writing) make it impossible to break employment contracts down into permanent vs. fixed-term (Explanation Type 3).

If you compare the development of the employee numbers with those of unlimited term contracts it is striking that the latter are rising more strongly. Due to the change in the market situation new employment contracts are partly subject to a time limitation. Contract prolongations and/or removals of time limitations are decided upon well ahead of the termination of the contracts.

## / LA2 / CORE // EMPLOYEE TURNOVER

Group-wide employee turnover was 9.3 (previous year: 3.6) per cent. → *Securing sustainable growth with strategic personnel management* • p. 105//

### 79 EMPLOYEE TURNOVER

People leaving the company	Germany	USA	Spain	Singapore	South Africa	Group
voluntarily*	23 (18)	34 (44)	0 (1)	2 (2)	1 (0)	60 (65)
of which women*	5 (2)	7 (19)	0 (0)	1 (1)	1 (0)	14 (22)
non-voluntarily	17	108	0	0	0	125
of which women	3	35	0	0	0	38

\* In the previous year employer and employee terminations were reported together (figures reported 2008 in parantheses).

The large number of people leaving the company on the labour side, especially in the United States, is primarily due to restructuring at the Camarillo site.

A breakdown by age group was not yet possible on the basis of the data available to us since these data have not yet been recorded on a uniform basis so that it is not possible to draw up any statistics (Explanation Type 2). We intend to address this issue in the medium term. We will have to analyze the possible level of detail in disclosing the data since some details are confidential (Explanation Type 3).

## / LA4 / CORE // EMPLOYEES COVERED BY COLLECTIVE BARGAINING AGREEMENTS

In the SOLARWORLD Group, 59 (previous year: 54) per cent of all employees (i.e. 1,173 (previous year: 982) employees, fall under collective bargaining agreements.

### 80 EMPLOYEES COVERED BY COLLECTIVE BARGAINING AGREEMENTS

	Germany	USA	Spain	Singapore	South Africa	Group
Employees falling under collective bargaining	1147 (903)	26 (79)	0 (0)	0 (0)	0 (0)	1173 (982)
Rate (% of total employees excl. temporary workers)	86% (75%)	4% (13%)	0% (0%)	0% (0%)	0% (0%)	59% (54%)

2008 values in parentheses



## / LA5 / CORE // MINIMUM NOTICE PERIODS REGARDING SIGNIFICANT OPERATIONAL CHANGES

The obligations of the employer with respect to significant changes in operations are set out by legislation, e.g. in Germany by the Industrial Relations Act (BetrVG), sections 90, 92, 106, 111. In the USA the notification periods are for example regulated by the Worker Adjustment & Retraining Notification Act or the National Labor Relations Act.

## / LA7 / CORE // INJURIES, OCCUPATIONAL DISEASES, LOST DAYS, ABSENTEEISM AND WORK-RELATED FATALITIES

Absenteeism corresponds to the “Absentee Rate (AR)”. We do not measure the “Lost Days Rate (LDR)” but lost hours. The “Occupational Disease Rate (ODR)” must not be determined on a Group-wide basis for reasons of data protection. For our US sites, we must not distinguish between sickness-related and other absenteeism since it is not permissible under US law to record absenteeism for reasons of data protection. We will therefore not be able to determine these data in future, either (Explanation Type 3). Absentee rates and occupational disease rates relate to the overall workforce but do not include self-employed contractors since it is not yet possible to determine these data for such staff. As in the previous year, there were no work-related fatalities; this also applies to the joint ventures of SOLARWORLD AG. The “injury rate (IR)” cannot be determined since accidents are recorded for all employees (including temporary workers) whereas the target working hours only cover employees on the company books. ➔ *Securing sustainable growth with strategic personnel management* • p. 105 //

## ②1 INJURIES, OCCUPATIONAL DISEASES, LOST DAYS, ABSENTEEISM AND WORK-RELATED FATALITIES

	Germany	USA	Spain	Singapore	South Africa	Group
<b>Absentee rate</b>	4.1% (3.1%)	2.0% (1.5%)	1% (0%)	1% (2%)	4% (5%)	3.4% (2.5%)
Absence due to sickness in calendar year (hours)	111,126 (71,502)	27,916** (19,469)**	72 (32)	160 (380)	248 (256)	139,522 (91,639)
Actual target working hours in calendar year (total workforce)	2,739,026 (2,302,875)	1,371,656 (1,256,320)	8,850 (8,850)	20,280 (22,824)	6,048 (5,472)	4,145,860 (3,596,341)
<b>Sickness rate</b> (percentage of employees who were sick at least once in the entire fiscal year)	71% (59%)	100% (n.a.)	0% (40%)	0% (0%)	100% (100%)	80% (39%)
Number of employees reporting sick in the calendar year	946 (707)	647 (n.a.)	0 (2)	5 (0)	3 (3)	1601 (712)
<b>Accident rate</b> (per 1000 employees, incl. temporary workers)	18.0‰* (6.2‰)*	6.0‰* (8.4‰)*	0‰ (0‰)	0‰ (0‰)	0‰ (0‰)	14.3‰* (8.4‰)*
Number of reportable occupational accidents (incl. temporary workers)	34 (10)	5* (7)*	0 (0)	0 (0)	0 (0)	39 (17)*
Hours lost in the calendar year due to accidents (excl. temporary workers)	2,640 (3,816)	1,328 (4,656)	0 (0)	0 (0)	0 (0)	3,968 (8,472)
Total direct costs to employee health and safety in the calendar year (in €)	247,441	97,134	862	2,300	0	347,737

2008 values in parentheses

\* Standardization of data collection: reportable accident if at least 3 days are lost; value related to employees including temporary workers.

\*\* Hours of absence declared as sickness-induced.

The sickness rate (absenteeism rate) has taken an unfavorable development in 2009. The high absenteeism rate is mainly attributable to a considerable number of long-term illnesses as well as many short-term diseases. Different analyses as well as the return interviews after an illness hardly give any indications that the causes of the disease are in any way linked with the company and/or the working conditions. Numerous measures of occupational health promotion, occupational safety, health information and a variety of preventive offers (e.g. flu protection vaccination, etc.) are designed to help prevent diseases. Which concrete pathological phenomena are causing the absenteeism in individual cases is not known to the employer at the time. In the USA an automated time clocking system was introduced which is why the data are now recorded comprehensively. This higher precision in data acquisition may also have caused the increase in documented absenteeism.

In the case of accident-induced absenteeism we have seen a positive development as there were less severe occupational accidents and appropriately shorter recovery times. This is attributable to continuous improvements of the occupational safety program (including proactive risk reduction and improved management of accident injuries by way of analyses on work place safety, the program to analyse incidents and the routine safety inspections.)

#### / LA8 / CORE // EDUCATION AND TRAINING ON SERIOUS DISEASES

Hitherto there have been no programmes of this kind in our Group, nor are there any workers involved in high-risk operational activities. We have taken precautions against all kinds of hazards by means of technical inspections, personal protection equipment and training courses. The only possible hazard is due to chemicals, but this is minimized by the above methods of inspection. For purposes of documentation, we record company hygiene and conduct surveys (both of these annually). We have also taken out insurance (environmental liability) in the event of spills that might cause damage to health.

#### / LA10 / CORE // INITIAL AND FURTHER TRAINING FOR EMPLOYEES

The data are not yet available broken down by employment category (hierarchical level, area) since this information has so far not been recorded in this way (Explanation Type 2). We intend to address this issue in the medium term. However, we do already document the following data:

- Further training expenditure\* per employee [in €]: 356.53 (previous year: 382.13)
- Total further training expenditure\* [in €]: 713,063 (previous year: 697,387)
- Number of hours spent in initial and further training: 39,307e\*\* (previous year: 11,907e\*\*)
- Number of training and education programmes: 798 (previous year: 837).
- Number of employees taking part in further training programmes: 1,780 (previous year: 1,108)
- Percentage of employees undergoing training each year [in %]: 89 (previous year: 61)

\* We apply a narrow definition of expenditure that only covers direct costs (e.g. documented in the form of invoices).

\*\* At the Freiberg location the time durations were estimated on the basis of the information available on the individual measures as these data have so far not been collected systematically. The hours indicated are absolutely reliable.

In 2009 the Group as a whole had 86 (previous year: 83) trainees (including employees pursuing in-work studies under a sandwich-type program). ➔ *Assuming responsibility – creating training opportunities* • p. 105//

Continuing professional education and up-skilling are offered on the basis of the existing demand. Fluctuations in the course of the year are normal. The increase of the workforce in 2009 has contributed to the dilution of per capita up-skilling costs. In the USA the hiring of training coordinators at the production locations has led to a situation where training courses that used to be offered by service providers are now conducted by the company itself by way of a “Train-the-Trainer” approach. In this way it was possible to save costs.

#### / LA13 / CORE // COMPOSITION OF GOVERNANCE BODIES

Diversity is important to us at SOLARWORLD. We work for equal opportunities throughout our Group and take account of these factors in recruitment. Key indicators of diversity and equal opportunities at SOLARWORLD are set out in our Code of Conduct [ [www.solarworld.de/sustainability](http://www.solarworld.de/sustainability)]: ethnic origin, skin colour, nationality, religion, sex, age, sexual orientation, gender identity, marital status, physical constitution/disability and appearance. It is not permitted to include all of

these characteristics in our statistics because many of them affect the private sphere of the individuals concerned and must therefore not be recorded (Explanation Type 3). Moreover, we have not yet recorded these data in the form desired under GRI (Explanation Type 2). Further employment categories concerning the areas within which employees operate have thus far not been defined. We intend to address this issue in the medium term. Our reporting is based on the categories of gender, disability and age distribution:

## 82 DIVERSITY

The Group Executive Board comprises four members (male, age group 30-50 years), who do not belong to any minority. In the USA there were employees in 2009 who belonged to a minority: 275 persons, 92 of which are women and 183 are men. In Germany we employed 86 trainees in 2009 (previous year: 83), 14 of which are women, i.e. 16 (previous year: 17) per cent.

	Germany		USA		Spain**		Singapore**		South Africa		Group	
<b>Executive Board/ Managing Directors*</b>	14 (9)		4 (6)		1 (2)		2 (2)		2 (2)		20 (18)	
of which women	0 (0)	0% (0%)	0 (0)	0% (0%)	0 (0)	0% (0%)	0 (0)	0% (0%)	0 (0)	0% (0%)	0 (0)	0% (0%)
<b>1st tier of management</b>	50 (34)		16 (18)		2 (2)		0 (1)		0 (1)		68 (56)	
of which women	9 (4)	18% (12%)	4 (3)	25% (17%)	1 (1)	50% (50%)	0 (0)	0% (0%)	0 (0)	0% (0%)	14 (8)	21% (14%)
<b>Executives of other tiers</b>	105 (80)		55 (48)		0 (0)		0 (0)		1 (0)		161 (128)	
of which women	6 (10)	6% (13%)	11 (10)	20% (21%)	0 (0)	0% (0%)	0 (0)	0% (0%)	0 (0)	0% (0%)	17 (20)	11% (16%)
<b>Employees without executive function</b>	1100 (1001)		573 (543)		2 (3)		7 (9)		2 (2)		1684 (1558)	
of which women	224 (193**)	20% (19%)	159 (115)	28% (21%)	0 (0)	0% (0%)	2 (3)	25% (30%)	2 (2)	100% (67%)	387 (313**)	23% (20%)
<b>Total employees</b>	1255 (1115)		644 (609)		4 (5)		8 (10)		3 (3)		1914 (1742)	
of which women	239 (207**)	19% (19%)	173 (128)	27% (21%)	1 (1)	25% (20%)	2 (3)	25% (30%)	2 (2)	67% (67%)	417 (341**)	22% (20%)
Employees with disabilities (number and percentage of total workforce)	17 (14)	1% (1%)	12 (15)	2% (2%)	0 (0)	0% (0%)	0 (0)	0% (0%)	0 (0)	0% (0%)	29 (29)	0% (2%)
<b>Age distribution</b>	Germany		USA		Spain		Singapore		South Africa		Group	
Percentage of employees < 30	18%		3%		0%		0%		0%		21%	
Percentage of employees 30-40	22%		8%		0%		0%		0%		30%	
Percentage of employees 40-50	19%		10%		0%		0%		0%		30%	
Percentage of employees > 50	9%		10%		0%		0%		0%		19%	

2008 values in parentheses where available

\* An individual with more than one function is only counted once (changes versus previous year)

\*\* The Group Report for 2008 indicated 187 women among employees without executive functions in Germany. This figure resulted from an error in calculation. The data for the number of women in the total workforce and the corresponding Group figures have been adjusted.

\*\*\* Editing error in the Group Report for 2008: the column headlines were mistakenly reversed.

## 254 / LA14 / CORE // RATIO OF WOMEN'S BASIC SALARY TO MEN'S

Most of the wages we pay at our sites are derived from collective bargaining agreements, which means that women and men are per se paid the same amount. This applies to 59 (previous year: 54) per cent of our employees worldwide. We cannot at present analyze employees by category since these data have not yet been recorded in the form desired under GRI (Explanation Type 2). We intend to address this issue in the medium term. The challenge will be to handle the fact that some functions differ substantially and comparisons are not very meaningful when expressed as an average for the Group as a whole.

In 2009 we took the first step by recording the range and average of pay in different tiers, and these figures are also broken down by gender.

### 83 RATIO OF WOMEN'S BASIC SALARY TO MEN'S

	Germany	USA
<b>Executive tier (excl. Managing Directors and Executive Board)</b>		
Range (overall) [in €]	22,448 - 108,115	32,228 - 128,912
Range (women) [in €]	33,896 - 78,000	44,403 - 84,296
Average (overall) [in €]	43,691	67,232
Average (women) [in €]	51,021	66,050
<b>Employees without executive function</b>		
Range (overall) [in €]	15,000 - 86,466	16,237 - 136,074
Range (women) [in €]	15,000 - 73,459	16,237 - 75,199
Average (overall) [in €]	30,493	32,032
Average (women) [in €]	31,542	27,895

In the light of the data available, the figures for this year are based on annual gross salary including holiday and Christmas pay (excluding performance-related components). For those on an hourly wage, the reference value expresses annual (basic) pay (excluding any bonuses or increments for shift work). In the medium term, however, basic pay is not an appropriate basis for calculations, as this is only part of the pay received. Performance-related bonuses and pension schemes can make a considerable difference, especially at executive level. However, many sites only record these additional pay components after some delay, so that they could not be included in this report.

For data privacy reasons we cannot publish this information in detail for the small locations with few employees. The range of salaries at the small locations goes from 10,937e to 42,706e € with the average salary amounting to 27,080e €. For these small locations we are working on a data acquisition method that preserves the confidentiality of the personal data.

The remuneration structures differ by varying degrees between all locations. The big differences between Germany and the USA can be explained by the very different social security systems. In Germany (General Law on Equal Treatment) as well as in the USA (Lilly Ledbetter Fair Pay Act) equal rights of men and women are regulated by law. Within the range of salaries at the US locations employees without management responsibility may easily receive a higher maximum remuneration than employees with management responsibility: In the USA employees with special know-how and qualifications and/or a particularly long career with the company tend to receive fairly high salaries irrespective of whether they hold a management position or not.

### / HR1 / CORE // INVESTMENT AGREEMENTS

In the reporting period, there were no significant investment agreements with key importance in terms of volume or strategic importance for the company. As a result, there were no human rights clauses associated with such agreements, either.

**/ HR2 / CORE // HUMAN RIGHTS SCREENING OF SUPPLIERS AND CONTRACTORS**

There was no systematic screening of our suppliers and contractors on human rights aspects (this far, this has not been a high priority because a large proportion of our suppliers and contractors are based in industrialized countries where strict national standards apply). In 2009, we intend to introduce our Suppliers' Code of Conduct, by means of which sustainability and ethical standards will form a systematic and explicit part of our cooperation agreements.

**/ HR4 / CORE // INCIDENTS OF DISCRIMINATION**

As in the previous year, there were no incidents of discrimination in the reporting period.

**/ HR5 / CORE // FREEDOM OF ASSOCIATION AND COLLECTIVE BARGAINING**

According to the assessment of the HR departments of the individual sites, no business operations have been identified where freedom of association or the right to engage in collective bargaining could be significantly jeopardized. However, so far no formal procedure to identify such business operations has been established (Explanation Type 2). We intend to address this issue in the medium term. However, we cultivate open and direct relations with employees, which means that any such risk should be notified to us. The legislation in Germany, Spain and the USA protects employees against any restrictions of their rights. At the site in South Africa we currently have only 3 employees, and at the site in Singapore only 8 employees, which favours strong participation of the individual employees in the decisions of management.

**/ HR6 / CORE // CHILD LABOUR**

Our business activities do not involve a significant risk of incidents of child labour or work by young people under dangerous conditions. Our processes are very transparent and are supervised via documentation in the work schedules. These aspects are also included in our Group-wide Code of Conduct. This far, a formal procedure to identify such risks has not been applied (Explanation Type 2). We intend to address this issue in the medium term.

**/ HR7 / CORE // FORCED AND COMPULSORY LABOUR**

Our business activities do not involve any significant risk of forced or compulsory labour. Our processes are very transparent and are supervised via documentation in the work schedules. These aspects are also included in our Group-wide Code of Conduct. This far, we have not used a formal procedure to determine this risk (Explanation Type 2). We intend to address this issue in the medium term.

**/ S01 / CORE // IMPACT ON COMMUNITIES**

To date, no formal programs or systematic procedures have been established to assess and regulate the impact of business activities on the community, including the launch, implementation and termination of business operations in a community or region (Explanation Type 2). We intend to address this issue in the medium term. We always seek open stakeholder dialogue. ➔ [4.16](#) • p. 235// and [4.17](#) • p. 237//

**/ S02 / CORE // CORRUPTION RISKS**

Responsibility is in the hands of Executive Board members and managing directors. In 2009 we expanded the SOLARWORLD Code of Conduct, specifying many requirements in greater depth. Consequently, we have also established a basis for anti-corruption policies. The establishment of formal programmes, including training schemes, is a medium-long-term task that we will continue working on in 2010.

**/ S03 / CORE // TRAINING IN ANTI-CORRUPTION POLICIES**

So far no employees have been trained in the organization's anti-corruption policies and procedures because so far no formal programs or systematic procedures have been established. We have been pursuing this objective since 2008, but as the matter is related to adopting the Code of Conduct, this is a medium-term project.

## 256 / S04 / CORE // CORRUPTION INCIDENTS AND ACTION TAKEN

As in the previous year, there were no incidents of corruption in the reporting period.

## / S05 / KERN // LOBBYING

SOLARWORLD conducts lobbying work in order to help solar energy become competitive and is an advocate of political funding programs. This relates for example to compensation through the German Renewable Energy Sources Act (EEG). We support an increase of the annual reduction of the tariff rates since they provide the industry with incentives to create cost reductions and quality improvements. We are also working worldwide for free access to the electricity grid for power producers because that is a prerequisite for solar energy to be competitive with other sources of power. In general terms, we work politically for climate protection, the conservation of resources, sustainable development and ethical management. That means our lobbying activity is in conformity with our declared principles, sustainability goals and public statements of position.

## / S08 / CORE // SANCTIONS FOR NON-COMPLIANCE WITH LAWS AND REGULATIONS

No major cases of non-compliance with laws and regulations were determined in the reporting period.

## / PR1 / CORE // IMPACTS ON CUSTOMER HEALTH AND SAFETY

Apart from the measures already indicated under other GRI items (technical inspections, etc.) there are no further systematic programs to address health and safety impacts during the life cycle of our products.

## / PR3 / CORE // PRODUCT INFORMATION

We get the components supplied from reputable manufacturers. The safety of the products we deliver is ensured by our quality management. Extensive product information is provided in the form of data sheets and assembly instructions. Substances which may have impacts on the environment or society are lead and halogens. Corresponding regulations for these substances (Restriction of Hazardous Substances/RoHS, Waste Electrical and Electronic Equipment/WEEE) are currently being discussed in the EU. The use of substances is strictly regulated in the United States. Supervision is effected via UL Listing. We exclusively use substances approved for our product in the USA. The following information is included in our product labelling for all essential products (100 per cent):

### 84 PRODUCT INFORMATION

Criteria	Procedure	Labeling of final products (module/system)
Origin of product components	In assessing the environmental impact, we also include the upstream process. We also assess our suppliers as required under ISO 9001. The same criteria are applied in selecting suppliers of consumables and raw materials. There is also a product information sheet for our cells.	The country of manufacture is indicated, but not the origin of individual components.
Composition	Not compulsory	Not indicated
Safe use of product	Our outgoing goods controls provide an additional check to ensure that no defective products, only products meeting customer requirements are shipped. In most cases quality assurance agreements are additionally concluded with customers.	A warning about electrical danger is included. A user information sheet (assembly instructions) is included in deliveries.
Product disposal	Recycling of input products and final products is covered. It is always our goal to avoid producing defective goods.	Our products are fully recyclable and can be returned to SolarWorld for this purpose. However, this is not indicated on the product.

/ PR6 / **CORE // STANDARDS RELATING TO ADVERTISING**

There are no written advertising-related rules of conduct or standards specified for the entire organization. The SOLARWORLD Group adheres to the law in its advertising and is guided by the SOLARWORLD values [www.solarworld.de/sustainability](http://www.solarworld.de/sustainability), e.g. fair competition, no discrimination. Compliance is continuously monitored through approval of advertising campaigns by the Executive Board. We do not distribute any products that must not be sold in certain markets or are called into question by public debate.

/ PR9 / **CORE // SANCTIONS FOR NON-COMPLIANCE WITH PRODUCT AND SERVICE REGULATIONS**

As in the previous year, no incidents of non-compliance with laws and regulations on the delivery or use of products or services were identified in the reporting period.

## CONFIRMATION FOR THE REPORT ON SUSTAINABLE CORPORATE MANAGEMENT OF SOLARWORLD AG FOR CALENDAR YEAR 2009

To SOLARWORLD AG, Bonn

We have obtained an order for an audit review regarding the report segments “KPI’s FOR ESG (core performance indicators)” as well as the “Performance indicators” of the Report on Sustainable Corporate Management 2009 of SOLARWORLD AG. It is the responsibility of the Executive Board of SOLARWORLD AG to prepare the Report on Sustainable Corporate Management 2009 in accordance with the following criteria set out in the G3 Guidelines of the Global Reporting Initiative (pages 7-17)

- materiality
- stakeholder inclusiveness
- sustainability context
- completeness
- balance
- comparability
- accuracy
- timeliness
- clarity and
- reliability

Our task is to provide an a confirmation for the report on sustainable corporate management on the basis of our assessment of the report segments “KPI’s FOR ESG (core performance indicators)” and “Performance indicators”.

We conducted the audit review on the report segments “KPI’s FOR ESG (core performance indicators)” and “Performance indicators” in accordance with the German standards for the audit of sustainability reports established by the Institute of German Auditors (IDW). Accordingly, the audit review requires us to comply with professional requirements and to plan and perform the engagement in such manner that we can rule out, through critical appraisal of the facts, that the report segments have not in all material aspects been drawn up in accordance with the above-mentioned criteria of the GRI Guidelines (G3) of the Global Reporting Initiative (pages 7-17). An audit review is limited primarily to making inquiries of company personnel and applying analytical procedures and thus does not provide the assurance that we would obtain from an audit of financial statements.



In the course of our audit review, we acquired the evidence, based on assessments of risks and materiality, to obtain limited assurance that report segments “KPI’s FOR ESG (core performance indicators)” as well as “Performance indicators” comply with the specified criteria of the GRI- Guideline Version 3.0 of the Global Reporting Initiative (Pages 7-17). The nature and extent of our procedures were determined, with the additional assistance of appropriate samples, by our professional judgment as to the requirements for obtaining limited assurance. The performance of our engagement included among other things the following procedures:

- Inspection of the relevant documentation, including documentation of Group principles and management and reporting structures, as well as inspection and random testing of existing documents and systems for compiling, analyzing and aggregating sustainability data
- Discussions with the team entrusted with compiling the Report on Sustainable Corporate Management,
- Discussions with employees of other Group divisions
- Acquiring an understanding of the process used to identify themes for Report on Sustainable Corporate Management in 2009
- Discussions and inspection of documents at the Bonn and Freiberg sites in relation to the sustainability data of operations at those sites.

With regard to environment data, we were able in the course of our engagement to access data and information pertaining to regular ISO 9001 and 14001 auditing.

The work we performed did not make us aware of any facts which would lead us to assume that the report segments “KPI’s FOR ESG (core performance indicators)” and “Performance indicators” were not drawn up in material respects in accordance with the underlying criteria specified in the GRI Guidelines (G3) of the Global Reporting Initiative (pages 7-17).

Bonn, 12 March 2010



*Dr. Gorny*  
Auditor



*ppa. Ahrend*  
Auditor

*BDO Deutsche Warentreuhand  
Aktiengesellschaft  
Wirtschaftsprüfungsgesellschaft*

A B C D E  
F G H I J K  
L M N O P  
Q R S T U  
V W X Y Z

# GLOSSARY

- A** **ACCRUALS AND DEFERRALS** • Accruals and deferrals are expenditure and income items that have been incurred before the financial statements (balance sheet date) but are not due until after the time of the annual financial statements.
- AIDED RECALL** • Survey to identify brand awareness in which the answers, i.e. the brand names, are offered for selection in a multiple choice mode.
- AMMONIA RESISTANCE** • In 2009 the Swiss SGS material testing institute proved the ammonia resistance of SolarWorld → *modules* in an ageing test. The items tested were all the materials used in the construction of the modules, especially backing film, cables, plugs and silicones. The ammonia resistance of modules is a prerequisite for the durable and hitch-free use of → *solar power plants* in agriculture, e.g. on the roofs of sheds and stables where they are frequently exposed to ammonia emissions.
- AT EQUITY SHAREHOLDING** • Shareholdings in associated companies and → *Joint Venture* companies of more than 20 per cent.
- B** **BENCHMARK** • Yardstick used to compare performance features of several objects or processes in order to improve them.
- C** **CAPITAL STOCK** • Total of the par value of all stocks issued by a company.
- CARBON DIOXIDE [CO<sub>2</sub>]** • Odorless, invisible gas consisting of carbon and oxygen; the increase of its concentration in the atmosphere is caused by the use of fossil energy sources and contributes to global warming.
- CARBON DISCLOSURE PROJECT [CDP]** • Global cooperation of more than 475 institutional investors with investment capital of more than US\$ 55 trillion. Its goal is to disclose → *greenhouse gas emissions* by companies and their respective strategies concerning climate change and its implications. The CDP thus constitutes the world's largest, freely available emissions inventory for corporate → *CO<sub>2</sub> emissions*. The fourth German CDP Report was published in October 2009. SolarWorld has been regularly participating in this project since 2006.
- CASH FLOW** • Cash surplus generated from ordinary business activities, an indicator of a company's self-financing strength.
- CELLS** • The (solar) cells combined into → *modules* serve to generate power from solar energy by means of the photovoltaic effect. Cells consist of two layers, both of which are impure (doped). An electrical field is produced at the interface between the two layers. When a light beam hits an electron in the upper layer, it can move freely and migrates outside. This creates an electrical voltage, which can then be tapped by outer contacts.
- CO<sub>2</sub> EMISSIONS** • → *Greenhouse gas emissions*
- CO<sub>2</sub> EQUIVALENTS [CO<sub>2</sub>eq]** • Contribution of a greenhouse gas to the greenhouse gas effect: The greenhouse gas potential of a → *carbon dioxide* is used as a comparative value to describe the earth warming effect of different greenhouse gases uniformly over a certain period of time.
- COMPLIANCE** • Observation of laws, guidelines and voluntary codes by companies.
- COMPLIANCE OFFICER** • Officer in charge of a company's consistent implementation of and compliance with the → *German Corporate Governance Code (GCGC)*.
- CONSOLIDATED COMPANIES** • The group of consolidated companies comprises the companies included in the consolidated financial statements. As a matter of principle, all subsidiaries have to be included, besides the parent company.
- CORPORATE COMMUNICATIONS** • Comprehensive strategically structured corporate communications internally and externally that are derived from the corporate vision and the corporate objectives.
- CORPORATE CULTURE** • The fundamental convictions, values and attitudes shared by the members of a company concerning the purpose of the company; corporate culture expresses, for example, the value notions that management holds, the way they deal with one another and with employees. (Source: German Federal Agency for Civic Education).
- CORPORATE GOVERNANCE** • → *German Corporate Governance Code (GCGC)*.
- CRYSTALLIZATION** • Process during which liquids or molten materials (e.g. silicon chunks molten at high temperatures) cool down slowly and under specific conditions and solidify in the form of crystals.
- CUSTOMER RELATIONSHIP MANAGEMENT [CRM]** • Describes the totality of customer care measures from acquisition via communication all the way to checking customer satisfaction using software systems. In this way the overall process can be designed more systematically.
- D** **DAXGLOBAL ALTERNATIVE ENERGY INDEX** • Shows the performance of the world's 15 largest companies operating in the alternative energies sector. The companies have to generate the bulk of their sales in natural gas, solar, wind, ethanol or geothermal energy.
- DAXGLOBAL SARASIN SUSTAINABILITY INDEX** • Bank Sarasin has developed a process, the so-called Sarasin Sustainability Matrix, to be able to assess not only the financial analysis but also the environmental and social analysis of companies. The index computed by Deutsche Börse represents the 100 largest and most liquid German companies that meet the criterion of → *sustainability* according to the

matrix. The SolarWorld stock has been listed in the index since its start in 2007.

**DAXPLUS FAMILY** • Performance of German and international companies from the → *Prime Standard* of the Frankfurt Stock Exchange in which the founder family holds at least 25 per cent of the voting stock or is represented on the Management Board or the Supervisory Board with a share of the voting stock of five per cent. Currently, the index contains 113 companies. The SolarWorld stock has been listed in the index since its start in January 2010.

**DECLARATION OF COMPLIANCE** • This is a declaration by the Management Board and the Supervisory Board pursuant to paragraph 161 AktG on the implementation of the recommendations of the Government Commission on the → *German Corporate Governance Code (GCGC)*.

**DEFERRED TAXES** • Result from differences in tax burdens where taxable profit differs from earnings in the commercial-law financial statements due to tax provisions.

**DEPRECIATION (FOR WEAR AND TEAR)** • Gradual reduction in the value of a fixed asset or investment through the systematic write-down of the costs over an extended period of time.

**DIVIDEND** • Portion of the earnings of a stock corporation distributed to the shareholders on an annual basis. The distribution of these earnings is resolved by the AGM.

**DOW JONES STOXX 600** • Stock index comprising the 600 largest European companies, measured in terms of the capitalization of the free float. The SolarWorld stock has been listed in this index since February 2006.

**E** **EARNINGS PER SHARE** • Group earnings divided by the weighted number of shares.

**EBIT** • Operating Earnings Before Interest and Taxes, usually used in evaluating the earnings situation of a company, in particular for international comparisons.

**EBITDA** • Earnings Before Interest, Taxes, Depreciation and Amortization. This indicator facilitates international comparisons as it does not include national taxes.

**EBIT MARGIN** • Shows the percentage of operating Earnings Before Interest, Taxes and financial result generated by a company per sales unit, thus providing information about the company's profitability.

**EBT** • Earnings before taxes.

**ECONOMIES OF SCALE** • The economies of scale (size/volume advantages) resulting from mass production are reflected in a reduction in unit costs.

**EEG** • Acronym for Erneuerbare-Energien-Gesetz (German Renewable Energy Sources Act). It governs the purchase of and compensation for power exclusively generated from → *renewable energies* by utilities operating universal power supply grids. The Act aims to increase the proportion of renewable energies by 25 to 30 per cent by 2020 and continuously thereafter.

**EFFICIENCY** • The degree of efficiency of a → *cell* and/or a → *module* is defined by performance per unit of area; it reflects the effectiveness of energy conversion.

**EINSTEIN AWARD** • Award presented by SolarWorld AG to personalities with particular merits in advancing the use of solar energy.

**EMPLOYEE PROFIT-SHARING MODEL (GOMAB)** • Profit-oriented employee profit-sharing model by the SolarWorld Group, establishing a distribution factor for the employees' pay structure. This factor is based on earnings by the individual company and the group.

**ENERGYROOF®** • SolarWorld brand; it involves special type of assembly by which frameless → *modules* are inserted into a profile system so that no additional roof tiling is required. This TÜV-certified roof integration system is particularly suitable for new buildings or roof rehabilitations.

**ENVIRONMENTAL MANAGEMENT (EM)** • Attempt by companies to systematically reduce the environmental damage caused by them. The corporate strategy should balance economic growth and ecological compatibility. The reduction of harmful emissions, waste avoidance and use of → *renewable energies* are combined into a set of environmental measures to be implemented, comprising the corporate environmental policy, environmental audits and standards such as → *ISO 14001*.

**ENVIRONMENTAL OPPORTUNITIES ALL-SHARE** • → *FTSE index*

**EQUITY CAPITAL** • Balance sheet item consisting of the capital stock, reserves and accumulated results that are available to the company for financing (among other things).

**EQUITY RATIO** • Indicator depicting equity as a proportion of the total capital stock. Used to assess the financial strength of a company.

**EUROPEAN PHOTOVOLTAIC INDUSTRY ASSOCIATION (EPIA)** • World's largest association for companies operating in the photovoltaic industry.

**EUROPEAN RENEWABLE ENERGY INDEX (ERIX)** • The index covers companies that generate their sales mainly in the areas of solar, wind, water, biomass, geothermal energy and tidal energy. The SolarWorld stock has been listed in the index since 2005.

**F** **FEED-IN TARIFF** • The compensation fixed by the → *EEG* for 20 years for power from → *renewable energies* fed into the public grid.

**FLOW-OF-FUNDS ANALYSIS** • Identification and reporting of income and expenditure generated or consumed by a company within a specific period of time from ongoing business, investment and financing activities.

**FTSE INDEX** • The FTSE Environmental Opportunities Index Series measures the performance of worldwide groups of companies that are primarily active in the ecology sector. SolarWorld stock has been listed in the index since its start in 2008.

**FULL INTEGRATION** • Combining upstream and downstream production stages of a product under uniform corporate management. SolarWorld covers the entire → *supply chain*, all the way from raw material extraction to finished → *modules*.

- G GERMAN CORPORATE GOVERNANCE CODE (GCGC)** • The code is designed to make transparent the rules applying to corporate management and supervision in Germany so as to promote the trust of international and national investors, of customers, employees and the public in the management of German companies. SolarWorld has been complying with the code since 2002.
- GERMAN ENTREPRENEURIAL INDEX (GEX)** • Index for owner-managed companies (i.e. members of Management Board, Supervisory Board own between 25 and 75 per cent) listed in the → *Prime Standard*. IPO does not date back more than ten years. The SolarWorld stock has been listed on the index since its start in 2005.
- GERMAN RENEWABLE ENERGY SOURCES ACT** → *EEG*
- GIGAWATT (GW)** • Equals 1,000,000,000 → *Watt*.
- GLOBAL CHALLENGES INDEX (GCI)** • The index includes companies that actively and responsibly face seven global challenges such as climate change, for example. The index contains 50 stocks of companies with worldwide operations. The SolarWorld stock has been listed in the index since its start in the year 2007.
- GLOBAL COMPACT (GC)** • Also “United Nations Global Compact”; is concluded between companies and the UN with the objective of making globalization more ecologically and socially compatible.
- GLOBAL REPORTING INITIATIVE (GRI)** • Global multi-stakeholder network of experts to define a global standard for the preparation of → *sustainability* reports. The GRI reporting framework serves to ensure systematic presentation of the economic, ecological and social performance of companies in order to facilitate comparisons between companies (→ *benchmarking*) and a transparent presentation of the development over time.
- GOMAB** • → *Employee profit-sharing model*.
- GREENHOUSE GAS EMISSIONS** • Greenhouse gases interfere with the natural balance of the atmosphere which may lead to climate change. The most important man-made greenhouse gases are → *carbon dioxide* (CO<sub>2</sub>) from the combustion of fossil energy sources (about 60 per cent) and methane from agriculture and mass animal husbandry (about 20 per cent).
- GRID PARITY** • Cost parity for solar power and household rates. Is achieved when solar power is less expensive than the consumer price for household power from the grid.
- GROSS DOMESTIC PRODUCT (GDP)** • Measure of the entire economic performance of an economy. The GDP is the total of all consumer expenditure, capital expenditure, government expenditure on purchases of goods and export proceeds minus import expenditure.
- I INCOME STATEMENT** • Summary of the revenues and expenses of a company during an accounting period.
- INTANGIBLE ASSETS** • Intangible assets comprise, among others, concessions, industrial property rights, licenses, goodwill and patents.
- INTELLECTUAL PROPERTY (IP)** • Intellectual property describes protected knowledge in the form of protective rights. IP is also deemed to be the law on intangible goods.
- INTERNATIONAL ACCOUNTING STANDARDS (IAS)** • Collection of standards and interpretations in which the rules of external reporting for capital-market-oriented companies are listed.
- INTERNATIONAL ELECTROTECHNICAL COMMISSION (IEC)** • International standard-setting body fixing standards in the electrotechnical and electronics areas.
- INTERNATIONAL FINANCIAL REPORTING STANDARDS (IFRS)** • Collection of standards and interpretations that lists the rules guiding the external reporting of capital-market oriented companies.
- INVERTER** • Converts the direct current (DC) generated by the solar → *cells* into grid-compatible alternating current (AC), stores the operating data and monitors the grid connection.
- ISO 9001** • International standard on quality management that determines the generally accepted requirements to be met by a quality management system.
- ISO 14001** • International standard on environmental management that determines the generally accepted requirements to be met by an environmental management system; it refers to the questions regarding production processes and services.
- ISO CERTIFICATION** • Series of standards outlining the requirements which the management of a company has to satisfy in order to comply with a specific standard in implementing → *Quality Management (QM)*.
- J JOINT VENTURE** • Economic cooperation between companies aimed at taking better advantage of each party’s know-how and resources.
- JSSI PROCESS** • Process to generate → *poly-crystalline* silicon, so-called “solar-grade silicon” of the → *Sunsil*® brand; development, production and marketing by JSSi GmbH (Joint Solar Silicon), a → *Joint Venture* of Evonik Degussa GmbH (51 per cent) and SolarWorld AG (49 per cent); the basis of the process is a gas called monosilan, from which silicon is precipitated in a unique, patented process. Energy savings of up to 90 per cent over conventional processes are possible. *Sunsil*® is upgraded into → *Sunbricks*®, *Sunballs*® and *Sunpearls*® by the SolarWorld subsidiary Sunicon AG.
- K KILOWATT (KW)** • Equals 1,000 → *Watt*
- KLD GLOBAL CLIMATE 100<sup>SM</sup> INDEX** • Index for stock corporations operating activities with the potential to mitigate the causes of climate change in the short and long term. The index comprises 100 international companies offering solutions against global warming. SolarWorld has been listed since start of index 2005.
- L LARGE-SCALE PLANT** • Large photovoltaic plant mostly installed in open-air sites, primarily these are plants with a rated output of more than 100 kilowatt.

- (M) M&A** • → *Mergers and Acquisitions*  
**MAC GLOBAL SOLAR ENERGY INDEX** • Worldwide index that includes strongly growing companies of the solar industry. SolarWorld has been listed since start of the index 2008.  
**MAIN WAVE SURVEY** • Survey of persons on brand awareness during or immediately after the airing of a tv commercial.  
**MARGIN** • Difference or market margin between producer (production) price and sales (consumer) price of a tradable product. The margin can cover the overhead costs included in production and distribution.  
**MARKET CAPITALISATION** • Measurement referring to the number of shares times the stock price.  
**MEGAWATT (MW)** • Equals 1,000,000 → *Watt*  
**MERGERS AND ACQUISITIONS (M&A)** • Acquisition and combination of companies.  
**MERRILL LYNCH RENEWABLE ENERGY** • The index covers 31 companies that are active in the sector of renewable energies. SolarWorld has been listed in this index since its start in 2007.  
**MODULE** • A (solar) module comprises a multitude of → *cells* interconnected in groups with weatherproof sealing in an aluminium frame behind a glass pane.  
**MONO-CRYSTALLINE** • Conditions prevailing during → *crystallization* result in the solidification of the in a single large and homogeneous, cylindrical crystal.  
**MULTI-CRYSTALLINE** • The conditions prevailing during → *crystallization* cause the → *solar silicon* to solidify in a silicon block consisting of several small crystals which overall does not show a completely homogeneous arrangement of atoms.
- (N) NATUR-AKTIEINDEX (NAI)** • Includes 30 international, ecologically acting companies that are selected as successful eco-pioneers according to particularly stringent standards. SolarWorld has been listed since 2003.
- (O) OECD (ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT)** • Alliance of currently 30 governments (established in 1961) with the objective of identifying Best Practice concerning sustainable economic development, employment, living standards and financial stability and to draw up appropriate guidelines. In addition, a contribution is to be made to the growth of world trade.  
**OFF-GRID** • Solar systems not directly connected to the power grid; the power generated is directly consumed or stored locally (so-called stand-alone system).  
**ON-GRID** • Solar systems connected to the regional power grid. The operator of the system can feed electricity into the grid when electricity production is high (strong solar radiation) and take electricity out of the grid if necessary.  
**ÖKODAX** • The ÖkoDAX represents the value development of the ten most liquid German companies from the Prime IG Renewable Energy Index. It covers companies from the → *renewable energies* industry.
- (P) PERFORMANCE DRIVERS** • Process-oriented parameter. An improved performance in the leading indicators influences the future development of the lagging indicators in a positive manner. The leading indicators thus have an early warning character concerning the achievement of key strategic goals.  
**PHOTON PHOTOVOLTAIC SHARE INDEX (PPVX)** • Worldwide index of the Photon trade journal listing the companies that generated more than 50 per cent of the previous year's revenues with products or services directly or indirectly associated with the installation or use of photovoltaic systems. SolarWorld AG has been listed in this index since its start in 2001.  
**PHOTOVOLTAIC** • Describes the direct conversion of solar radiation into electrical energy.  
**PLUS-SORT** • Quality feature of the SolarWorld brand → *Sun-module® Plus*; the output of the → *modules* is measured individually. Only modules meeting at least the rated output are delivered. When installing the modules, time-consuming output measurements and module sorting operations are therefore not required.  
**POLY-CRYSTALLINE** • → *Multi-crystalline*  
**PREPAID EXPENSES/DEFERRED INCOME** • Balance sheet item carrying expenses incurred or income received before the closing date (balance sheet date) but allocatable to periods after the balance sheet date.  
**PRE-WAVE SURVEY** • Survey of persons on brand awareness before the airing of a television commercial.  
**PRIMARY ENERGY CONSUMPTION** • In the energy industry primary energy describes that energy which is available in the naturally occurring energy forms or energy sources, like for example coal, gas, solar radiation or wind. Primary energy consumption is the result of the final energy consumption and the losses incurred in generating the final energy from primary energy.  
**PRIME STANDARD** • Listing segment of the Frankfurt stock exchange for companies meeting particularly stringent international transparency standards. Precondition for admission to DAX, → *TecDAX*, *MDAX* or *SDAX*.  
**PROVISION** • These are balance sheet items in which amounts are accrued for uncertain liabilities that can, however, already be estimated at the present time (e.g. pension payments, taxes).
- (Q) QUALITY MANAGEMENT (QM)** • Application of measures serving to improve products, processes or services of any kind. QM is considered part of functional management, aiming to enhance the efficiency of a transaction or workflow.
- (R) RATING** • Ratings serve to assess the future ability of a company to meet its payment obligations punctually and completely and result from the analysis of quantitative and qualitative factors.  
**(RE-)ASSURANCE** • Confirmation of facts within the framework of the Internal Control System (ICS); defined processes are thus verified both in terms of their compliance and also in terms of whether they make sense.  
**RECYCLING** • Returning used materials into the economic

cycle and processing them into new products. Recycling offers the advantages of a reduction in waste volumes as well as the conservation of raw materials.

**RENEWABLE ENERGIES** • Energies from non-depleting sources including sun, water, wind, geothermal and biomass sources.

**RENEWABLE ENERGY INDUSTRIAL INDEX (RENIXX)** • Index of the 30 most important worldwide stocks of companies active in wind energy, solar energy, hydropower, bio-energy, geothermal energy and fuel cells. SolarWorld has been listed in this index since its start in 2006.

**RISK MANAGEMENT** • Procedure for the identification, measurement and avoidance/reduction of risks or the implementation of corresponding measures.

**ROHS DIRECTIVE (RESTRICTION OF HAZARDOUS SUBSTANCES)** • EU Directive limiting the use of specific substances such as lead and mercury in the manufacture and processing of electrical and electronic devices and components. It aims to eliminate the hazardous substances from throwaway electronic products.

**S** **S&P GLOBAL CLEAN ENERGY INDEX** • The index covers 30 “Clean Energy Companies” worldwide. SolarWorld has been listed in this index since its start in 2007.

**SMART GRID** • An “intelligent” power grid that is created by networking and controlling by way of communications technology power generating and storage facilities, electrical consumers and grid operating facilities. This makes it possible to monitor and optimize the components that are linked with one another. The objective is to secure energy supplies on the basis of an efficient and reliable systems operation.

**SOLAR CELL** • → *cell*.

**SOLAR-GRADE SILICON** • As Solar Grade Silicon we describe silicon crystals with a high degree of purity sufficient for solar applications. The chemical element of silicon is a semiconductor that forms crystals with a stable diamond structure. After oxygen silicon is the second most frequent element in the earth crust. For the processing in the solar field the raw silicon has to be purified into solar-grade silicon and is cast into blocks for cutting into → *wafers*.

**SOLAR POWER PLANT** • Complete system of solar modules generating direct current through the photovoltaic effect direct current to be fed into the power grid is converted into alternating current by an → *inverter*.

**SOLAR2WORLD** • Under the umbrella “Solar2World”, the SolarWorld group pools its ethical activities to promote solar power, in particular in threshold and developing countries.

**SOLAR RACER** • A racer (“SolarWorld No. 1”) specifically produced in cooperation with Bochum University and exclusively powered with solar energy. The racer is driven by a highly efficient solar generator. [www.solarworldno1.de](http://www.solarworldno1.de)

**SOLEX** • → *World Solar Energy Index*

**SOLSIX®** • SolarWorld → *wafers* brand.

**SPOT MARKET** • General term for markets in which the pur-

chase price is paid immediately upon delivery.

**SPREAD** • Describes the difference between two uniform entities that are compared with one another.

**STAKEHOLDERS** • Groups or individuals that may influence the goals achieved by a company or are affected by these goals. The key stakeholder groups include employees, shareholders, investors, suppliers, customers, consumers, authorities and non-governmental organizations.

**STANDARD TEST CONDITIONS** • These are conditions under which the current and voltage indicators of a cell and/or a → *module* are measured (1,000 W/m<sup>2</sup>, 25°C cell temperature, solar spectrum AM 1.5).

**STRING** • Designation of several solar → *cells* switched in series within a → *module*.

**SUNBRICKS®** • SolarWorld branded product, developed and produced by the Sunicon AG subsidiary; the products are produced by pressing powdery → *Sunsil®* into shape according to a self-developed process. The silicon becomes melttable and can thus be further processed into → *wafers*. Alternative products are Sunballs® and Sunpearls®.

**SUNCARPORT®** • Carport® with a solar roof of SolarWorld brand. The solar power of the carport can be fed into the grid, in Germany at the same compensation rates as roof systems according to the → *EEG*. In the future, the Carport can also be used as a “power filling station”.

**SUNKIT®** • SolarWorld branded product; this is a solar kit for solar roof systems consisting of the selected → *module* type, an → *inverter* adjusted to the module, an assembly rack and further accessories. The kits are calculated according to the current norms and standards and individually put together to meet the specific requirements of the building situation of the customer.

**SUNMODULE® PLUS** • SolarWorld branded product; an innovative → *module* concept for which the → *plus grade* among other things is a characteristic feature.

**SUNSIL®** • SolarWorld brand name for highly-pure → *solar-grade silicon* produced in accordance with the → *JSSI process*.

**SUNTROL®** • Product series of the SolarWorld brand to monitor the yield data of a → *solar power plant*; it consists of a data display, a data logger as well as an internet portal [www.suntrol-portal.com](http://www.suntrol-portal.com)

**SUPPLIER CAPITAL** • Intangible assets such as, for example, licences or contracts with suppliers that constitute a certain value.

**SUPPLY CHAIN** • Term used to designate the value added of a product on every stage of production processes. The stages of SolarWorld’s supply chain range from silicon to → *modules*.

**SUSTAINABILITY** • 1) lasting; it describes a system lasting in the long term; 2) scientific concept concerning the objective limits to the use of environmental resources; 3) ethical normative concept hinging upon the question of justice and a balance between value added and ecological damage added.

**SUSTAINABILITY BALANCED SCORECARD (SBSC)** • This is based on the Balanced Scorecard by Kaplan/Norton (1992) and constitutes an indicator-based control instrument that systematically takes into consideration economic, ecological and social factors. The basic structure of the Balanced Scorecard includes not only the financial perspective but also the customer perspective, the process perspective as well as the innovation, potential and employee perspectives. In the case of a Sustainability Balanced Scorecard another perspective – the social perspective – can be added. By way of control variables and performance drivers the instrument establishes cause-and-effect relationships and is designed to provide structural early indicators.

**SUSTAINABILITY MANAGEMENT** • Control of ecological, social and economic effects in order to 1) achieve a sustainable corporate and business development and 2) ensure a positive contribution made by the company to the sustainable development of society at large.

**SYNERGY** • An effect designed to express the fact that the total resulting from an optimum combination of individual elements is more than the sum of the individual elements.

**T TAKE-OR-PAY OBLIGATION** • Contract in which the seller undertakes to supply a certain quantity and the buyer undertakes to pay for the contracted amount irrespective of whether he takes delivery of this quantity or not.

**TECDAX** • Index of medium-sized German companies from the technology industry; in addition to the DAX, the MDAX and the SDAX the TecDAX belongs to the → *Prime Standard* of Deutschen Börse AG. The SolarWorld stock has been listed in this index since 2004.

**TOTAL ASSETS** • Total of all assets and liabilities in a balance sheet.

**TOTAL PRODUCTIVE MANAGEMENT (TPM)** • This concept originates from → *Quality Management (QM)*. The overriding objectives are the increase of plant availability, the minimization of losses, the integration of employees and the avoidance of redundancies.

**U UNAIDED RECALL** • In a survey on brand awareness no multiple answers are given when unaided recall is measured. The respondents have to remember the brand names without help.

**V VALUE ADJUSTMENT** • Adjustment item to cover the impairment of a fixed or current asset item carried under assets in the balance sheet, for example accounts receivable.

**VALUE CHAIN** • → *supply chain*.

**W WAFERS** • Thin discs made of solar silicon, used to produce solar → *cells*. They could be → *mono-* as well as → *multi-crystalline*.

**WATT** • International measuring unit for output, named after James Watt, standard sign “W”.

**WEEE DIRECTIVE (WASTE ELECTRICAL AND ELECTRONIC EQUIPMENT)** • EU Directive relating to the collection, treatment and disposal of electrical and electronic scrap and formulating requirements concerning the design of such equipment from a waste management perspective.

**WILDER HILL NEW ENERGY GLOBAL INNOVATION INDEX (NEX)** • The NEX contains worldwide companies whose technologies and services take into consideration future generations and that promote the use of clean and renewable energies. The SolarWorld stock has been listed in this index since its start in 2006.

**WORLD SOLAR ENERGY INDEX (SOLEX)** • The index contains the ten largest companies worldwide in the solar industry. The SolarWorld stock has been listed in this index since its start in 2006.

**WORKING CAPITAL** • Current assets minus current liabilities, i.e. the portion of current assets financed with long-term schemes. It provides information about the company’s financial stability and flexibility.



# SUBJECT INDEX

- A** ANNUAL GENERAL MEETING ..... 55, 57f, 66f  
AUDITOR'S REPORT ..... 27, 209
- C** CARBON DISCLOSURE PROJECT (CDP) ..... 39, 45, 67, 231  
CASH FLOW ..... 102, 153, 204  
CO<sub>2</sub> BALANCE ..... 44f, 246  
COMPLIANCE ..... 53ff  
CONTROLLING ..... 47, 53f, 114, 116f  
CORPORATE COMMUNICATIONS ..... 47  
CORPORATE CULTURE ..... 106ff, 111, 144  
CUSTOMER RELATIONSHIP MANAGEMENT (CRM) ..... 42, 44  
CUSTOMER SATISFACTION ..... 35, 41, 43, 83, 218
- D** DECLARATION OF COMPLIANCE ..... 53  
DIVIDEND ..... 36, 64ff, 69, 145, 152, 191
- E** EARNINGS PER SHARE ..... 149, 182  
EBIT ..... 38, 40, 64, 98f, 183f  
EBIT MARGIN ..... 98  
EBITDA ..... 98  
EEG/GERMAN RENEWABLE ENERGY  
SOURCES ACT ..... 34, 39, 52, 111f, 136f, 141f  
EMPLOYEE PROFIT-SHARING MODEL (GOMAB) ..... 108f  
ENVIRONMENTAL MANAGEMENT (EM) ..... 44  
EQUITY CAPITAL ..... 100ff
- F** FEED-IN TARIFFS ..... 52, 111f, 136f, 141  
FOREIGN QUOTA ..... 98
- G** GERMAN CORPORATE GOVERNANCE CODEX  
(GCGC) ..... 53ff  
GLOBAL REPORTING INITIATIVE (GRI) ..... 216  
GRID PARITY ..... 51, 120, 130, 136
- I** INCOME AFTER TAXES ..... 149, 182  
INTELLECTUAL PROPERTY (IP) ..... 91, 96  
INTERNATIONAL ACCOUNTING STANDARDS (IAS) ..... 154ff  
INTERNATIONAL FINANCIAL REPORTING  
STANDARD (IFRS) ..... 49, 116, 154ff  
INVESTOR RELATIONS ..... 45, 67  
ISO CERTIFICATION ..... 39, 80
- J** JOINT VENTURE ..... 34, 48f, 50, 79, 112f, 139f
- L** LARGE-SCALE PLANT ..... 48, 82, 136f
- M** MANAGEMENT BOARD ..... 14, 40f, 53ff  
MANAGEMENT BOARD REMUNERATION ..... 56ff  
MARKET CAPITALIZATION ..... 65
- O** OFF-GRID ..... 47, 50, 93, 130f, 142  
ON-GRID ..... 47, 50  
ORDER TREND ..... 98
- P** PERFORMANCE INDICATORS ..... 244  
PHOTON MODULE TEST ..... 88, 111  
PRODUCTION CAPACITIES ..... 79, 140
- Q** QUALITY MANAGEMENT ..... 44
- R** RATING ..... 118  
RECYCLING ..... 77, 133  
RELATED PARTIES ..... 158, 187
- S** SEGMENT ..... 49, 182f  
SOLAR2WORLD ..... 39, 87  
SUPERVISORY BOARD ..... 23ff, 53ff, 207  
SUPERVISORY BOARD REMUNERATION ..... 60ff  
SUPPLIER CAPITAL ..... 80  
SUPPLIERS ..... 80, 121ff, 223, 235f
- T** TECDAX ..... 65, 69  
TOTAL PRODUCTIVE MANAGEMENT (TPM) ..... 44, 110
- W** WARRANTY TERMS AND CONDITIONS ..... 143  
WORKING CAPITAL ..... 103

# LIST OF ACRONYMS AND ABBREVIATIONS

- A** ABS ..... *Asset Backed Securities*  
 AG ..... *German Stock Corporation*  
 AKTG ..... *German Stock Corporation Act*
- B** BAFIN ..... *German Financial Services Agency*
- C** CDP ..... *Carbon Disclosure Project*  
 CEO ..... *Chief Executive Officer*  
 CFO ..... *Chief Financial Officer*  
 COO ..... *Chief Operating Officer*  
 CRM ..... *Customer Relationship Management*  
 CSO ..... *Chief Sales Officer*
- D** DD&O ..... *Directors and Officers*  
 DIW ..... *German Institute for Economic Research*  
 DVFA ..... *German Association for Financial Analysis  
and Asset Management*
- E** EBIT ..... *Earnings before Interests and Taxes*  
 EBITDA ..... *Earnings before Interests, Taxes,  
Depreciation and Amortization*  
 EBT ..... *Earnings before Taxes*  
 EEG ..... *German Law on Renewable Energies*  
 EM ..... *Environmental Management*  
 EIA ..... *Energy Information Administration*  
 EPIA ..... *European Photovoltaic Industry Association*  
 ESG ..... *Environmental, Social, Governance*
- G** GC ..... *Global Compact*  
 GCGC ..... *German Corporate Governance Code*  
 GDP ..... *Gross Domestic Product*  
 GHG ..... *Greenhouse Gas*  
 GOMAB ..... *SolarWorld Employee Profit Sharing Scheme*  
 GRI ..... *Global Reporting Initiative*  
 GW ..... *Gigawatt*
- H** HGB ..... *German Commercial Code*  
 HR ..... *Human Resources*  
 HSSE ..... *Health, Safety, Security and Environment*
- I** IAS ..... *International Accounting Standards*  
 ICS ..... *Internal Control System*  
 IEA ..... *International Energy Agency*  
 IEC ..... *International Electrotechnical Commission*  
 IFRS ..... *International Financial Reporting Standards*
- ISO ..... *International Organization for Standardization*  
 IT ..... *Information Technology*
- K** KPI ..... *Key Performance Indicators*  
 KW ..... *Kilowatt*  
 KWH ..... *Kilowatt per hour*  
 KWP ..... *Kilowatt-peak*
- L** LLC ..... *Limited Liability Company*  
 LTD. .... *Limited Company*
- M** M&A ..... *Mergers and Acquisitions*  
 MW ..... *Megawatt*  
 MWP ..... *Megawatt-peak*
- O** OECD ..... *Organization for Economic Cooperation  
and Development*  
 OPEC ..... *Organization of Petroleum Exporting Countries*
- P** PV ..... *Photovoltaic*
- Q** QM ..... *Quality Management*
- R** R&D ..... *Research & Development*  
 ROHS ..... *Restriction of Hazardous Substances*
- S** SBSC ..... *Sustainability Balanced Scorecard*  
 SRI ..... *Socially Responsible Investing*
- T** TPM ..... *Total Productive Management*
- U** UL ..... *Underwriters Laboratories Inc.*
- W** WEEE ..... *Waste Electrical and Electronic Equipment*  
 WPHG ..... *German Securities Trading Act*

THE ANNUAL GROUP REPORT 2009 IS ALSO AVAILABLE IN GERMAN.  
 GERMAN AND ENGLISH ONLINE-VERSIONS CAN BE FOUND ON OUR  
 HOMEPAGE AT ANNUALGROUPREPORT2009.SOLARWORLD.DE.  
 ON THE WEB YOU MAY ALSO FIND A BARRIER-FREE PDF OF OUR ANNUAL  
 GROUP REPORT.

PHOTOS: SANDRA SCHUCK  
 CONCEPT: STRICHPUNKT, STUTTGART / WWW.STRICHPUNKT-DESIGN.DE  
 PRODUCTION: KREATIV KONZEPT, BONN / WWW.KREATIV-KONZEPT.COM  
 PRINT: KÖLLEN DRUCK & VERLAG GMBH, BONN / WWW.KOELLEN.DE

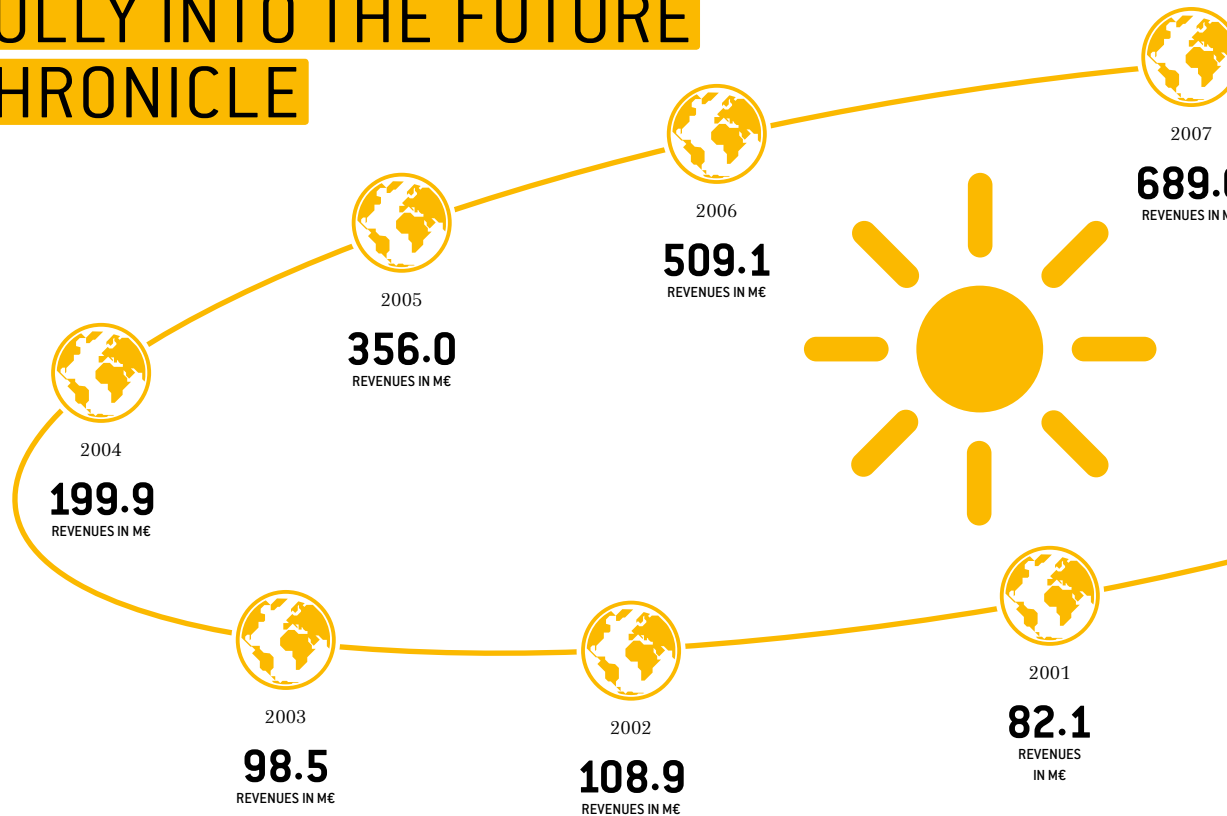
# FINANCIAL AND EVENT CALENDAR

20-21 January 2010	<b>SOLAR POWER, LAS VEGAS (USA)</b> <a href="http://WWW.SOLARPOWERCONGRESS.COM/">WWW.SOLARPOWERCONGRESS.COM/</a>
<b>25 March 2010</b>	<b>PUBLICATION OF ANNUAL GROUP REPORT 2009</b> <b>ANNUAL BUSINESS PRESS CONFERENCE ON FINANCIAL STATEMENTS // 11:00 A.M.</b> <b>ANALYSTS' CONFERENCE ACCOUNTS // 3:00 P.M.</b> <a href="http://ANNUALGROUPREPORT2009.SOLARWORLD.DE/">ANNUALGROUPREPORT2009.SOLARWORLD.DE/</a>
<b>26 March 2010</b>	<b>INTERNATIONAL ANALYSTS' CONFERENCE CALL ANNUAL GROUP REPORT 2009</b>
08-10 April 2010	<b>PV AMERICA, PHILADELPHIA (USA)</b> <a href="http://WWW.PVAMERICAEXPO.COM/">WWW.PVAMERICAEXPO.COM/</a>
11-16 April 2010	<b>LIGHT + BUILDING, FRANKFURT A. M. (GERMANY)</b> <a href="http://WWW.LIGHT-BUILDING.MESSEFRANKFURT.COM/">WWW.LIGHT-BUILDING.MESSEFRANKFURT.COM/</a>
13-16 April 2010	<b>AMPER, PRAG (CZECH REPUBLIC)</b> <a href="http://WWW.AMPER.CZ/">WWW.AMPER.CZ/</a>
19-23 April 2010	<b>HANOVER FAIR, HANOVER (GERMANY)</b> <a href="http://WWW.HANNOVERMESSE.DE/">WWW.HANNOVERMESSE.DE/</a>
22-25 April 2010	<b>ECOTEC, ATHENS (GREECE)</b> <a href="http://WWW.ECOTEC-EXHIBITION.GR/">WWW.ECOTEC-EXHIBITION.GR/</a>
05-07 May 2010	<b>SOLAR EXPO, VERONA (ITALY)</b> <a href="http://WWW.SOLAREXPO.COM/">WWW.SOLAREXPO.COM/</a>
<b>11 May 2010</b>	<b>PUBLICATION OF CONSOLIDATED INTERIM REPORT 1<sup>ST</sup> QUARTER 2010</b> <b>ANALYSTS' CONFERENCE CALL</b> <a href="http://WWW.SOLARWORLD.DE/FINANCIAL-REPORTS/">WWW.SOLARWORLD.DE/FINANCIAL-REPORTS/</a>
<b>20 May 2010</b>	<b>ANNUAL GENERAL MEETING, BONN (GERMANY)</b> <a href="http://WWW.SOLARWORLD.DE/HV2010/">WWW.SOLARWORLD.DE/HV2010/</a>
21 May 2010	<b>DIVIDEND PAYMENT* FOR FISCAL YEAR 2009</b>
09-11 June 2010	<b>INTERSOLAR, MUNICH (GERMANY)</b> <a href="http://WWW.INTERSOLAR.DE/">WWW.INTERSOLAR.DE/</a>
16-18 June 2010	<b>RENEWABLE ENERGY EXHIBITION, PARIS (FRANCE)</b> <a href="http://WWW.ENERGIE-REN.COM/">WWW.ENERGIE-REN.COM/</a>
13-15 July 2010	<b>INTERSOLAR NORTH AMERICA, SAN FRANCISCO (USA)</b> <a href="http://WWW.INTERSOLAR.US/">WWW.INTERSOLAR.US/</a>
<b>11 August 2010</b>	<b>PUBLICATION OF CONSOLIDATED INTERIM REPORT 1<sup>ST</sup> HALF 2010</b> <b>ANALYSTS' CONFERENCE CALL</b> <a href="http://WWW.SOLARWORLD.DE/FINANCIAL-REPORTS/">WWW.SOLARWORLD.DE/FINANCIAL-REPORTS/</a>
06-09 September 2010	<b>25<sup>TH</sup> EUROPEAN PHOTOVOLTAIC SOLAR ENERGY CONFERENCE AND EXHIBITION, VALENCIA (SPAIN),</b> <a href="http://WWW.WIP-MUNICH.DE/">WWW.WIP-MUNICH.DE/</a>
<b>11 November 2010</b>	<b>PUBLICATION OF CONSOLIDATED INTERIM REPORT 3<sup>RD</sup> QUARTER 2010</b> <b>ANALYSTS' CONFERENCE CALL</b> <a href="http://WWW.SOLARWORLD.DE/FINANCIAL-REPORTS/">WWW.SOLARWORLD.DE/FINANCIAL-REPORTS/</a>
11-12 November 2010	<b>FORUM SOLARPRAXIS, BERLIN (GERMANY)</b> <a href="http://WWW.SOLARPRAXIS.DE/">WWW.SOLARPRAXIS.DE/</a>

\* pending on approval by Annual General Meeting

# SUCCESSFULLY INTO THE FUTURE

## 10-YEAR CHRONICLE



### 2000

EMISSION PROCEEDS FROM TWO ADDITIONAL CAPITAL INCREASES CREATE THE FINANCIAL LEEWAY FOR THE STRATEGICALLY IMPORTANT ENTRY INTO WAFER PRODUCTION – CAPITAL STOCK INCREASED TO € 4.5 MILLION

- \* By acquiring a stake in the then Bayer Solar in Freiberg, Germany (today: DEUTSCHE SOLAR) and subsequently expanding the Freiberg production site systematically SOLARWORLD laid the foundation for its growth along the entire solar value chain.

### 2001

CAPITAL INCREASE BY 450,000 SHARES – WITH CAPITAL STOCK GOING UP TO € 4.95 MILLION – THE CAPITAL RESOURCES WERE FURTHER STRENGTHENED FOR FUTURE EXPANSION

- \* The foundation of SOLAR FACTORY in Freiberg, Germany, marks our entry into module production.

### 2002

CAPITAL INCREASE BY 825,000 SHARES – THE CAPITAL STOCK NOW AMOUNTS TO € 5.775 MILLION

- \* Inauguration of DEUTSCHE CELL and thus entry into the group's own cell production – SOLARWORLD thus operates the Europe's largest integrated solar cell factory in Freiberg, Germany.
- \* First-time signature of the Corporate Governance Code
- \* Joint venture with Evonik Degussa GmbH – pioneering step in the area of generating solar-grade silicon

### 2005

1:1 ISSUE OF BONUS SHARES DOUBLES CAPITAL STOCK TO € 12.7 MILLION. TOP SHARE OF THE YEAR 2005

- \* SOLARWORLD Einstein Award presented for the first time. The award goes to personalities who have acquired special merits in promoting the use of solar energy.
- \* With the foundation of the sales subsidiaries SOLARWORLD CALIFORNIA and SOLARWORLD IBÉRICA the group starts the expansion of its international business.
- \* Raw materials activities enhanced: Prototype plant for solar-grade silicon generation of JOINT SOLAR SILICON produces the first quantity of silicon.

### 2006

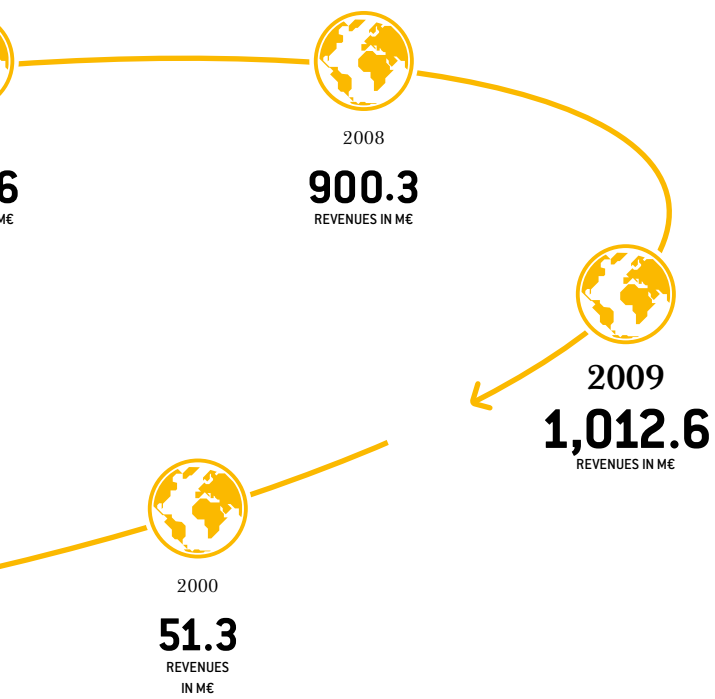
FURTHER CAPITAL INCREASE BY 1.265 MILLION SHARES – € 13.965 MILLION OF CAPITAL STOCK RENEWED  
ISSUE OF BONUS SHARES 1:3 – THE CAPITAL STOCK RISES TO € 55.86 MILLION

- \* Acquisition of the crystalline solar activities of Shell in Germany and the USA – basis for the future production in the USA and rise to be among the leading TOP 3 solar power providers worldwide
- \* Entry into solar motor racing – development of a solar racing car SOLARWORLD No.1 together with Bochum University of Applied Sciences, Germany

### 2007

1:1 ISSUE OF BONUS SHARES – DOUBLING THE CAPITAL STOCK TO € 111.72 MILLION

- \* Acquisition of a new production facility in Hillsboro in the US State of Oregon – milestone for the further expansion of US manufacturing activities in only 18 months
- \* Strategic expansion of the areas of Research & Development as well as Raw Materials by establishing the subsidiaries SOLARWORLD INNOVATIONS and SUNICON in Freiberg, Germany
- \* Under the umbrella of SOLAR2WORLD the group pools its not-for-profit activities and contributes to the regional development in developing countries with its projects of rural solar power solutions.



### 2003

**INCLUSION OF SOLARWORLD SHARE IN THE PRIME STANDARD OF DEUTSCHE BÖRSE – THE SHARE IS WELL ESTABLISHED AND IS SOON REPRESENTED IN OTHER INDICES AS WELL**

- \* Commissioning of the pilot plant SolarMaterial for solar recycling and wafer recovery at the Freiberg, Germany, location – SOLARWORLD as the pioneer and innovation driver
- \* Inauguration of a fully automatic production line for solar modules in Freiberg, Germany – the complete solar value chain is at the highest technological standard

### 2004

**SOLARWORLD MANAGES TO ENTER THE TEC DAX VIA THE SO-CALLED "FAST ENTRY RULE" CAPITAL INCREASE BY ANOTHER 575,000 SHARES – CAPITAL STOCK AT € 6.35 MILLION FLOATING OF A CORPORATE BOND: THE SOLARWORLD BEARER BOND**

- \* SOLARWORLD is awarded certification according to ISO 9001 thus documenting its quality orientation right across all business processes.
- \* Group strategy and consistent course of expansion generate successes: Two years after foundation DEUTSCHE CELL joins the Top Ten of worldwide solar cell manufacturers. DEUTSCHE SOLAR advances into the league of the largest European manufacturers of silicon wafers.

### 2008

**RECEIVED THE GERMAN SUSTAINABILITY AWARD FOR THE MOST SUSTAINABLE PRODUCTION**

- \* Opening of the SOLARWORLD solar factory in Hillsboro – America's largest production facility for crystalline wafers and cells making SOLARWORLD the largest fully integrated solar group with production activities in the USA
- \* Expansion of the growth potential in the Asian market – establishment of solar module production in South Korea as part of the SOLARWORLD KOREA joint venture
- \* Breaking ground for the construction of a further wafer factory at the Freiberg, Germany, site – the largest expansion project to date
- \* Group's own silicon production got started within the framework of the JOINT SOLAR SILICON (JSSI) joint venture with Evonik Degussa GmbH.

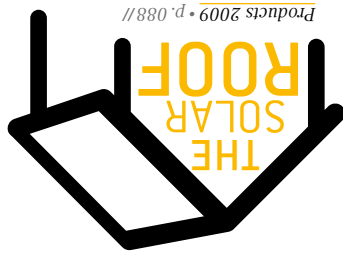
### 2009

**BILLION EURO REVENUE EXCEEDED FOR FIRST TIME – TEN YEAR STOCK EXCHANGE ANNIVERSARY**

- \* Since the IPO in 1999 the stock price increased by 1,683 per cent. Thus, the SOLARWORLD stock shows the best performance of all German listed companies in the Prime and General Standard in the last ten years.
- \* Further expansion of the worldwide production network with locations in Germany, the USA and South Korea (joint venture). The group has thus strengthened its presence in the world's largest growth and future markets.
- \* SOLARWORLD is the best known solar brand in Germany – strategic investments in brand awareness are increased by a factor of five.
- \* Innovative power is increased significantly – build-up of a new, international research campus with development labs for wafers, cells and modules
- \* AGM of SOLARWORLD AG approves the capping of Management Board salaries to twenty times the gross average income in the group, thus sending out a signal for the appropriate amount of management salaries in Germany.



**SOLARWORLD**  
ANNUAL GROUP REPORT  
ONLINE UNDER  
ANNUALGROUPREPORT2009.  
SOLARWORLD.DE



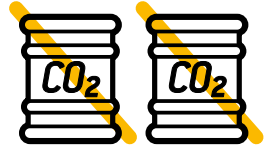
Products 2009 • p. 088//



**SOLAR  
2 WORLD**

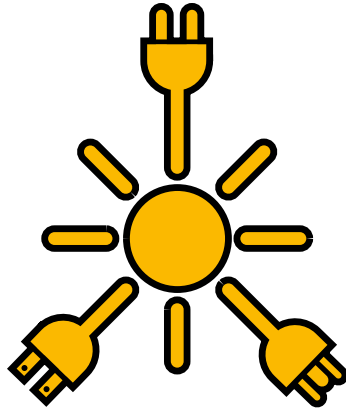
www.solarworld.de/sustainability

\* **4.6 M  
TONNES**  
DURING 25 YEARS

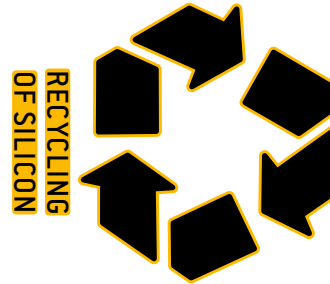


\* BY SOLARWORLD SALES OF MODULES 2009

Environmental management • p. 044//



Recycling opportunities • p. 133//

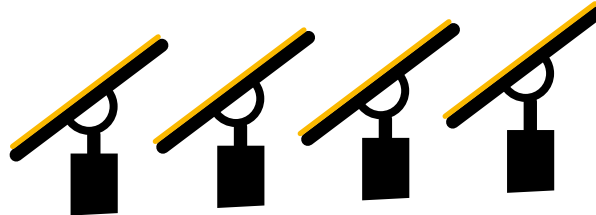


Opportunities • p. 128//



**SOLAR-  
CARPORT**

Products 2010+ • p. 142//

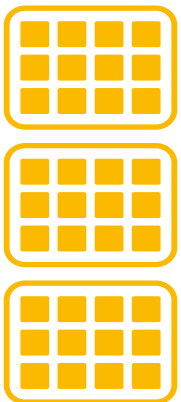


**PHOTOVOLTAIC SYSTEM**

Trade • p. 081// Products • p. 088//



Brand • p. 083//



\* SOURCE: WORLD ENERGY OUTLOOK 2009

\* **4,496**  
M HUMANS USE  
**2030**  
**SOLAR**  
**POWER**

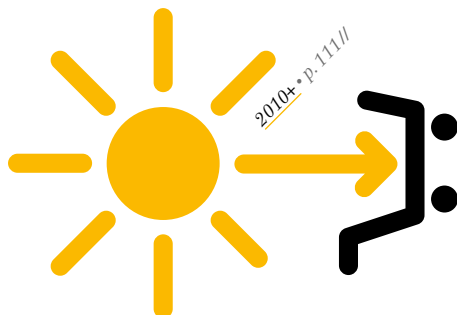


KPI's for ESG • p. 221//



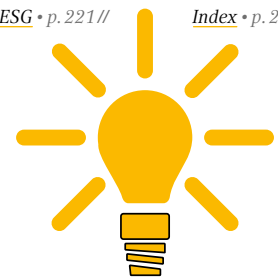
Index • p. 217//

SolarWorld AG  
Investor Relations  
Martin-Luther-King-Str. 24  
53175 Bonn, Germany  
www.solarworld.de  
placement@solarworld.de  
Telephone: +49 228/559 20-0



2010+ • p. 111//

**TEST WINNER**  
IN "STANDARDIZED"  
ANNUAL YIELDS"  
\*2009 PHOTON QUALITY STUDY



**OFF-GRID**  
ELECTRICAL POWER SUPPLY

Sales markets 2010+ • p. 141//