

# ANNUAL GROUP REPORT 2012

## SOLARWORLD AG

SUBJECT TO AMENDMENTS AND UNAUDITED





# ANNUAL GROUP REPORT 2012 SOLARWORLD AG

SUBJECT TO AMENDMENTS AND UNAUDITED



## EXECUTIVE BOARD AND SUPERVISORY BOARD *SPECIFICALLY POINT OUT,*

that the figures per December 31, 2012 stated in this report and the other disclosures are subject to the presumption of going concern, are preliminary, have not been fully audited by nor received an audit opinion from the company's auditors and have been adopted by neither the supervisory board nor the shareholders' meeting. We also specifically point out that possible changes to the balance sheet in the scope of the audit of the annual and consolidated financial statements might possibly lead to substantial changes of the results disclosed below.



## IMPORTANT PRELIMINARY REMARK

### Preliminary and unaudited report

Executive Board and Supervisory Board specifically point out that the figures per December 31, 2012 stated in this report and the other disclosures are subject to the presumption of going concern, are preliminary, have not been fully audited by nor received an audit opinion from the company's auditors and have been adopted by neither the supervisory board nor the shareholders' meeting. We also specifically point out that possible changes to the balance sheet in the scope of the audit of the annual and consolidated financial statements might possibly lead to substantial changes of the results disclosed below.

The information on the asset, financial and income position is based on the requirements of the International Financial Reporting Standards (IFRS) and, where applicable, on German commercial law and the German accounting principles (German GAAP).

### Integrated Sustainability Report

Our sustainability reporting follows the international guidelines (G3.1) of the Global Reporting Initiative (GRI). This year's report has not been audited by GRI yet and will follow after the audit certificate has been issued for the financial statements by the company's auditors.

In the Group Management Report, we comment on particularly relevant economic, ecological and social issues. The sustainability factsheet provides a summary of the most important indicators. "Sustainability in Detail" contains additional data and more in-depth information, and is available online:

@ [www.solarworld.de/financial-reports//](http://www.solarworld.de/financial-reports//)

Rounding differences may occur.

### FOR YOUR GUIDANCE

- ➔ *Cross reference to text passages in the 2012 Annual Group Report • p. 000//*
- Ⓜ *Cross reference to charts in the 2012 Annual Group Report • p. 000//*
- @ [www.internetlink.com](http://www.internetlink.com) //
- 📄 *Cross reference to Details on Sustainability Performance 2012 • p. 000//*
- © *Cross reference to financial reports of prior years • p. 000//*

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## – SOLAR VALUE PROPOSITION –

To learn more about the value we create for our customers, see the introductory pages to the main sections in this report.



## – SOLAR SUSTAINABILITY –

To find out how we are working for a sustainable future for our company, the environment, and society, visit “Sustainability in Detail” on the internet:

@ [www.solarworld.de/financial-reports//](http://www.solarworld.de/financial-reports//)

\* A more detailed table of contents can be found at the beginning of the main chapters.

— SOLARWORLD 2012 —

# 2012 WAS A CRISIS YEAR FOR THE SOLAR INDUSTRY AS A WHOLE.

**SOLARWORLD ALSO FACED AND CONTINUES  
TO FACE GREAT CHALLENGES.**

— **OUR GOALS** —

We want to keep adding to the value we create –  
for our customers and society as a whole.

This way, we want to make our operational business profitable again,  
prove SOLARWORLD's strengths, and withstand the industry consolidation.

— **OUR WAY** —

We consistently scrutinize all processes and structures in terms of  
cost and competitiveness.

We differentiate ourselves from the vast majority of module providers  
by offering our customers complete solutions under the SOLARWORLD  
brand, which enable our customers to generate clean,  
cost-effective power.

Our brand demonstrably stands for quality, innovation and sustainability.

We are increasingly growing into a global entity, becoming even faster,  
more flexible and more effective.

While the market continues to be highly volatile, strategists at  
SOLARWORLD are working to enhance our competitiveness.





# SOLAR *FUTURE*

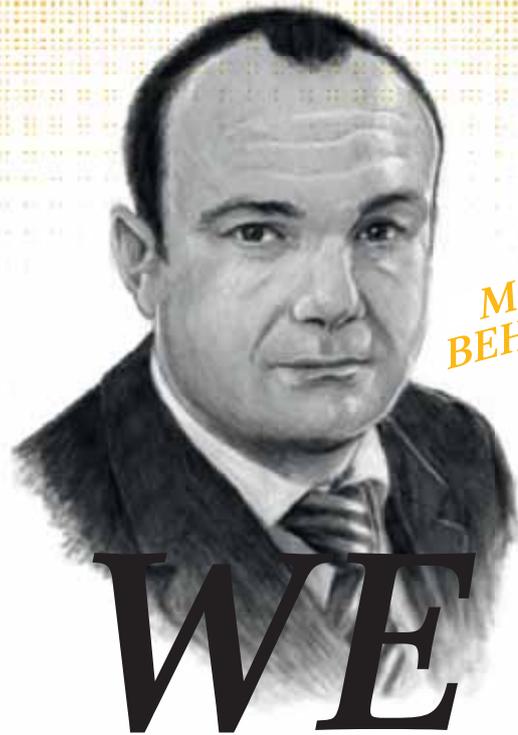
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## **5** *FORWARD-LOOKING* STATEMENTS

FIVE STRATEGIC AREAS PROVIDE INFORMATION ON CURRENT CHALLENGES,  
MEASURES AND GOALS FOR THE FUTURE.



008



MARIO  
BEHRENDT

**WE  
NEED TO  
LEAD  
THE FIELD  
IN TECHNOLOGY**



SOLAR FUTURE

1/5

INTERVIEW

**NEW  
PRODUCTS WILL  
SET US APART  
FROM THE  
COMPETITION  
IN 2013**

— *What is your view on the development of the solar industry over the last few years?*

**M.B.** When I came to SOLARWORLD in 2006, I already believed in the idea of photovoltaics. This hasn't changed at all. Today, very few people would dispute that solar power will play an important role in the future energy mix. Photovoltaics is a key technology. When a new key technology emerges, it is not at all surprising that Asian competitors crowd into the market – with cheap products and high production capacities. This is why, from a very early stage, we focused on automation and standardization as well as on quality and brand. Price deterioration on the scale that the entire solar industry has seen, however, is unprecedented. We too have suffered heavily as a result. As I'm sure you know, things have been even worse for other market participants – many no longer exist.

— *Where are the opportunities for SOLARWORLD?*

**M.B.** 2013 will be another tough year of consolidation in the solar industry. We need to restore fair competition. If this means taking legal action, then so be it. But regardless of that, the opportunities for SOLARWORLD are certainly not bad. As far as manufacturing in Germany and the U.S. is concerned, strength lies in innovation. High price pressure and ruinous competition in the recent past meant there was more of a focus on costs than innovation. And yet, we have continued to invest heavily in research and development. Innovations and the associated cost advantage are fundamental to the continued existence of SOLARWORLD. We have many developments in the

pipeline. If we implement them as planned in 2013, we will have a decisive competitive edge. In combination with the SOLARWORLD brand, this should see us through the difficult phase.

— *What specific innovations are planned?*

**M.B.** Our customers will be convinced by products that let them generate higher yields. This particularly applies to our 270-watt modules and glass-glass modules. In addition, our employees have developed a new process that delivers significant improvements in the manufacturing costs and quality of mono-crystalline products. x

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**ABOUT**

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**POSITION** . *Division Head of Production*  
                  . *Germany*

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**LOCATION** . *Freiberg, Germany*

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*Mario Behrendt (52) has been in charge of solar wafer manufacturing at the Freiberg site since 2006. Before his time at SOLARWORLD, the former Olympic boxer worked for around 14 years in various management positions at Samsung Electronics. There, he was responsible for production and technology development.*

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**MORE ON THE SUBJECT**

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➔ *Innovation report • p. 065//*

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010



**KEVIN  
KILKELLY**

**WE  
NEED TO  
FURTHER BOOST  
THE SALES  
OF COMPLETE  
SYSTEMS**



**SOLAR FUTURE**

INTERVIEW

**WE  
WILL FOCUS  
MORE ON THE  
OVERALL COSTS OF  
THE SYSTEM**

**— Why did you decide to start working in the solar industry?**

*κ.κ.* I completed my first solar project while still working with GE. To me, combining solar power and distributed generation in a way that's reliable and easy to deploy seemed like a natural shift for Americans to embrace. I wanted to become a part of that future. When the opportunity to lead SOLARWORLD's U.S. sales subsidiary presented itself in 2010, I didn't hesitate to seize it.

**— What are the major challenges at the moment?**

*κ.κ.* The solar market has gone from undersupplied to oversupplied practically overnight. In 2012, SOLARWORLD aligned its manufacturing capacities and inventory level with market demand. Efficient use of working capital and excellent cash flow management are and will continue to be key elements. As module costs may continue to decrease, the importance of the balance of system rises. We will

focus more on the overall costs of the whole system.

**— What is SOLARWORLD doing to foster these changes?**

*κ.κ.* In 2012, we used sales forces that can provide our clients with engineering support and that understand the economics of solar systems as a whole, beyond the price of modules. We will concentrate even more on the levelized cost of electricity – including all components, whether they be labor, modules, inverters or financing – as the target for our total installation costs. We have hired people who know how to sell the financing of the systems. This is the best way to return the organization to profitability and give value back to our stakeholders.

**— What are your goals looking forward?**

*κ.κ.* We have innovative products in the pipeline, whose higher power yield and greater reliability will become huge differentiators, bolstering SOLARWORLD's value proposition and brand. The successful launch of these products is critical to our success in 2013. Moreover, we plan to further strengthen our distributor program and certified-installer network, both in the U.S. and in Germany. We need to boost the sales of complete systems and expand our ground-mounted business. **x**

**ABOUT**  
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**POSITION** . *President of*  
                  *SolarWorld Americas Inc.*  
**LOCATION** . *Camarillo, CA, United States*

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*After a career as a helicopter pilot and aviation company commander in the U.S. Army, Kevin Kilkelly (41) joined General Electric (GE) for nine years. In 2010, the sales manager and Six Sigma Black Belt followed his passion for environmental science and joined SOLARWORLD.*

**MORE ON THE SUBJECT**  
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☞ *Trade • p. 057//*

012



JÜRGEN  
STEIN

**WE**  
**WANT TO**  
**BE EVEN**  
**FASTER AND**  
**MORE**  
**FLEXIBLE**



SOLAR FUTURE

3/5

INTERVIEW

**WE  
WILL  
REDEFINE  
OUR LOGISTICS  
CHAINS**

**— What was your personal motivation to join the solar industry?**

J.S. Renewable energies today are what the communications industry was a decade ago. The issues currently at stake concern everybody, because they are relevant to society as a whole. It was not a difficult decision to make. The cost of materials alone accounts for more than 70 percent of the overall costs. Especially in an industry crisis, therefore, you can achieve a lot in purchasing. Personally, setting up the groundwork is what I find most exciting.

**— What sort of groundwork have you done so far at SOLARWORLD?**

J.S. The market has changed very quickly. When I joined SOLARWORLD in 2011, long-term material availability was still the primary goal. But now the actual challenges are flexibility and getting the right price without sacrificing quality. Over the last two years, purchasing has grown into a glob-

al strategic organizational unit that is better equipped to confront these challenges.

**— What have you achieved so far?**

J.S. So far, we have made savings worth millions. At the same time, we want to integrate our suppliers as long-term partners. In 2012, for the first time we invited our top suppliers to a “SOLARWORLD Supplier Day”. All Management Board members took part, and clearly explained the financial, technological and market development situation in their respective areas. This transparent communication was well received.

**— What are your plans for 2013 and beyond?**

J.S. We want to reduce our purchasing costs sustainably and

become even faster and more flexible. Therefore we will organize our logistics chains so that our production facilities have more room to “breathe” with the materials. For example, we will work with consignment warehouses to enable just-in-time delivery. We must act with strategic foresight. Purchasing needs to be involved in innovation early on. High-performance suppliers and the use of the highest-quality and most cost-effective materials play a key role for our new products. Together with select, strategic partners, we will successfully emerge from the crisis in the solar industry. x

**ABOUT**

**POSITION . Global Head of Procurement**  
SolarWorld AG  
**LOCATION . Bonn, Germany**

*Jürgen Stein (46) has been in charge of global procurement management since 2011. The mechanical engineer knows the field well, having worked in management positions in purchasing for more than ten years. He gained his international experience mainly in the communication technology sector.*

**MORE ON THE SUBJECT**

➔ [Procurement](#) • p. 076//

014



MARIA  
KNILL

**WE**  
**NEED TO**  
**THINK EVEN**  
**MORE**  
 **Globally**



**SOLAR FUTURE**

**4/5**

INTERVIEW

# TOGETHER

## WITH OUR EMPLOYEES, WE WILL CONTINUE TO DEVELOP SOLARWORLD AND PURSUE INTERNATIONAL GROWTH

— **What motivated you to join SOLARWORLD?**

m.k. The fact that the position has a global focus was a strong attraction. In 2011, when I came to SOLARWORLD, I had worked abroad for 13 years, gaining considerable experience in the integration of international subsidiaries. But personally I also found the industry – the idea of sustainability – to be very appealing.

— **What were your first impressions?**

m.k. Extremely good. I have truly never before experienced working in a company that has such a strong corporate culture. Large corporations make enormous efforts to create a corporate culture – SOLARWORLD has it already! The driving factor is the “green idea”.

— **How has the industry crisis affected jobs at SOLARWORLD?**

m.k. We adjusted production due to lower demand, and unfortunately we also had to cut some

jobs. At the same time, we have expanded strategic areas in the group such as purchasing and IT. In 2012, we managed to retain our appeal as an employer. We are able to attract the often-mentioned “high potentials”. The “green idea” motivates people to apply to us. In our job interviews we often hear applicants say: Now more than ever!

— **What do you see as being the greatest challenges for SOLARWORLD?**

m.k. To continue being successful, we need an even more global focus and our thinking and actions have to be more sales-oriented. This process of change has begun. There needs to be a change in awareness and atti-

tudes. But I’m confident about this, because I know our employees are highly flexible. The challenge is in achieving better coordination between our sites and departments. We need to work together on all levels to implement our strategic goals.

— **What role does HR play in this?**

m.k. My team and the HR teams at all locations will offer guidance and support to management and all employees throughout the necessary process of change. To achieve a more global focus, we need to create suitable positions, enable international cooperation and actually facilitate greater contact between employees. x

ABOUT

POSITION . *Global Head of Human Resources and Organizational Development*

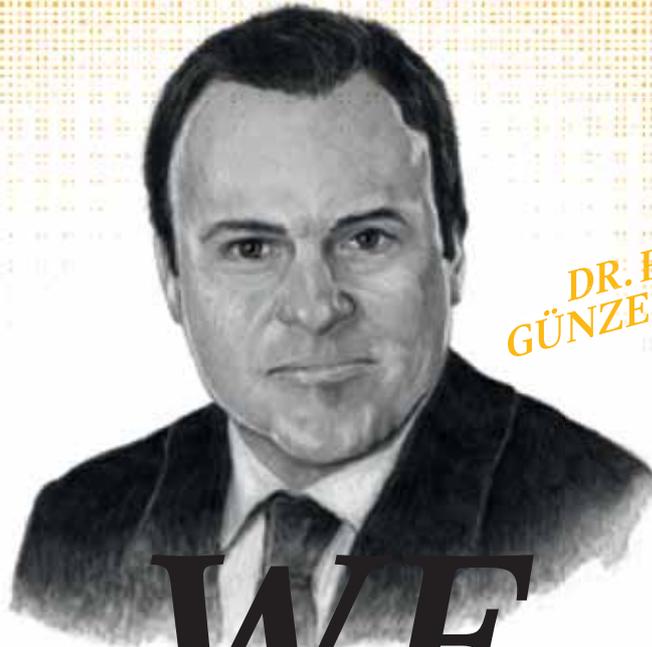
LOCATION . *Bonn, Germany*

*Maria Knill (42) came to SOLARWORLD from the tourism industry in 2011. An experienced HR manager, at Thomas Cook Service AG she was responsible for some 1,500 employees worldwide and helped strengthen global cooperation between the group’s international subsidiaries.*

MORE ON THE SUBJECT

➔ *Employees • p. 077//*

016



DR. PEER  
GÜNZEL

**WE**  
**NEED TO**  
**MAKE SOLAR POWER**  
**EVEN MORE**  
**COMPETITIVE**



SOLAR FUTURE

5/5

INTERVIEW

**OUR  
LARGE-SCALE  
SOLAR PROJECTS  
ALLOW US  
TO CREATE  
POSSIBILITIES FOR  
NEW, SMART  
POWER GENERATION**

**— Why is the group now also becoming increasingly involved in large-scale plants?**

P.G. Internationally, there is a lot of investor demand for large-scale projects. There are big opportunities for us here. Large-scale plants are not a new business area for SOLARWORLD. However, the acquisition of SOLARPARC AG gives the group a whole new set of strategic possibilities. We have combined SOLARWORLD's expertise as a manufacturer with that of SOLARPARC AG as a developer and operator of large-scale plants.

**— What particular features characterize SOLARPARC AG's business operations?**

P.G. What we do is to offer our customers complete solutions. Modules with high technical quality are an important part, but in the project business they are just one of many factors. Ultimately, our customers are most interested in how much the electricity costs to produce. They want to generate power as

economically as possible. Of course, the production costs are mainly determined by the efficiency and reliability of the system as well, but the financing, for example, is also a decisive factor.

**— What do you consider are the strengths of SOLARPARC AG in the project business?**

P.G. We can implement projects quickly. In 2012, within a few months we completed and financed three large-scale solar projects with a total output of 50 MW that met the requirements for feed-in tariffs on time. Our management expertise is also a strong advantage, as it

allows us to generate repeat revenue. We want to further expand this area in 2013.

**— What challenges and opportunities will the year 2013 bring?**

P.G. The greatest challenge will be the international expansion of the business – our integration into the SOLARWORLD group will benefit us here. Together with local partners, we are specifically seeking cooperative ventures in selected markets, for example the Arab countries. Our goal is to further cut project investment costs through intelligent planning. Today, large-scale solar projects are already more than a long-term, low-risk capital investment. Together with partners, we are also unlocking new opportunities that will enable utility companies to make reliable and stable use of solar power from large-scale power plants thanks to storage systems and grid-supporting technologies. This is the future. x

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**ABOUT**

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**POSITION . Chief Financial Officer**  
*. Solarparc AG*

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**LOCATION . Bonn, Germany**

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*Dr. Peer Günzel (41) took over the finance department at the SOLARWORLD subsidiary SOLARPARC AG in 2011. A business graduate, he is using his international experience in the financing and development of large solar projects to grow this business area globally.*

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**MORE ON THE SUBJECT**

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➔ *Trade • p. 057//*

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**WE  
CREATE  
VALUE**

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**SHARE**  
*OUR*  
VISION

AROUND THE GLOBE, SOLARWORLD SHOWS THAT SOLAR POWER IS A KEY TECHNOLOGY. DRIVEN BY THE GREEN IDEA, OUR EMPLOYEES CREATE SOLUTIONS FOR CUSTOMERS ALL OVER THE WORLD THAT BETTER EXPLOIT THE POWER OF THE SUN. „BETTER“ MEANS MORE EFFICIENTLY, MORE INDEPENDENTLY, AND MORE SUSTAINABLY.

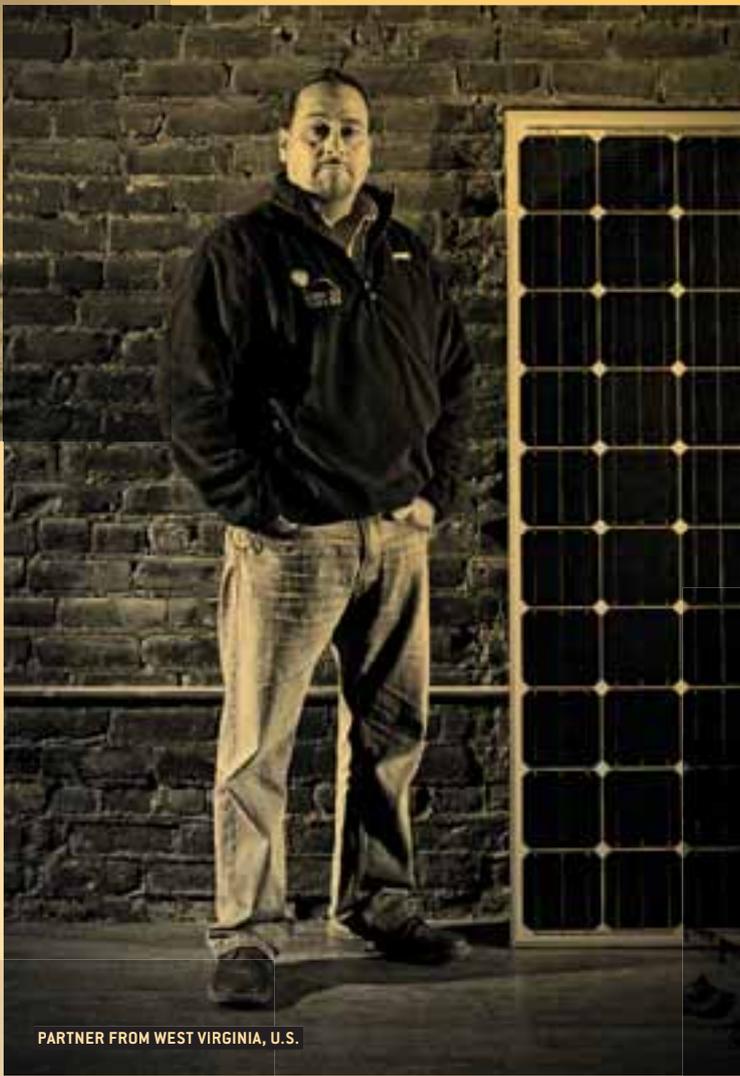


# SHARE

OUR SOLAR WORLD



POWERING DIRECTLY TO THE CUSTOMER



PARTNER FROM WEST VIRGINIA, U.S.



INSTALLER IN MALI, AFRICA



DEDICATED TO THE GREEN IDEA



CLEAN, RELIABLE, AFFORDABLE – FOR EVERYONE

LARGE-SCALE PLANT IN THE VATICAN



AROUND THE WORLD WITH SOLAR POWER



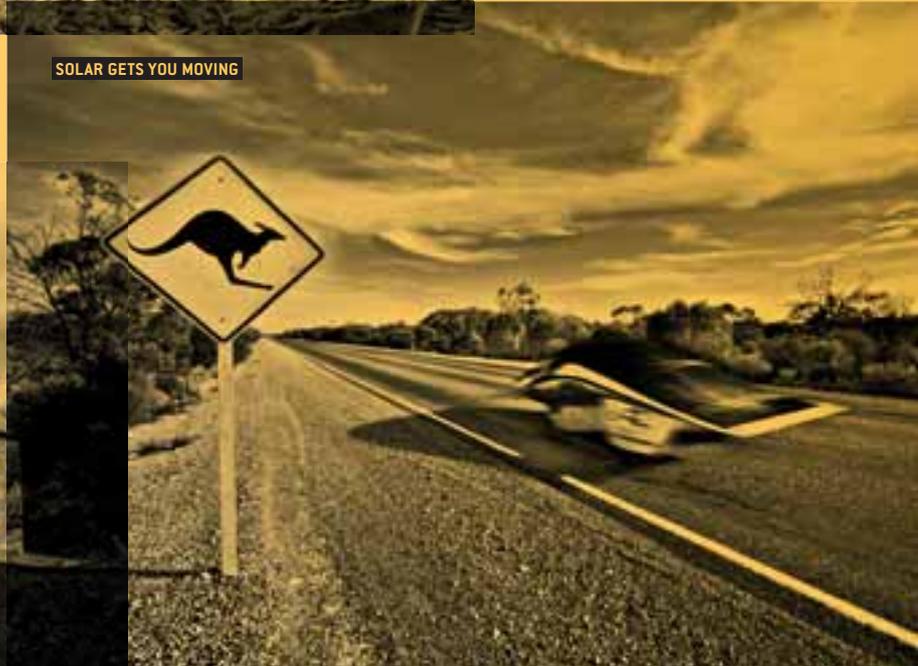
THE SOLAR LIFESTYLE

HIGHER YIELDS – ON THE ROOF TOO



BOOSTING HOMEMADE POWER THE INTELLIGENT WAY

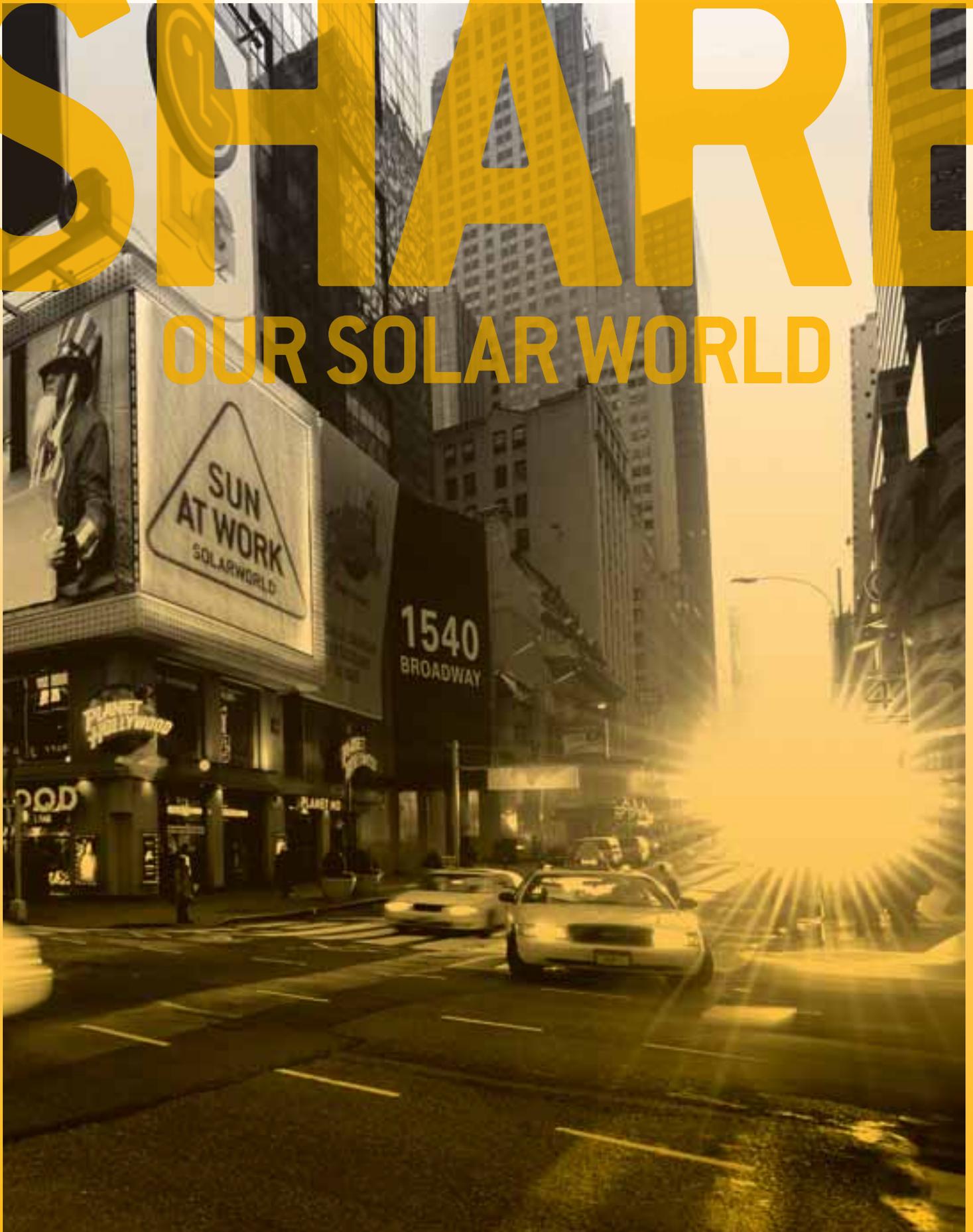
SOLAR GETS YOU MOVING



ATTRACTIVE SYSTEM SOLUTIONS FOR EVERY ROOFTOP

# SHARE

OUR SOLAR WORLD



2012

SOLARWORLD /  
ANNUAL GROUP REPORT (SUBJECT TO AMENDMENTS AND UNAUDITED)



CHAPTER #1

# TO OUR SHAREHOLDERS



**SUN  
AT WORK**  
SOLARWORLD.COM

# THE MANAGEMENT BOARD

– OF SOLARWORLD AG –



**DR.-ING. E. H.  
FRANK  
ASBECK**

**CHIEF EXECUTIVE OFFICER (CEO)**

// Founder of the company, responsible for strategic group development, production and technology development, procurement as well as public relations/public affairs including energy and environmental policy  
// Period of office: 1999 to January 9, 2014



**FRANK  
HENN**

**CHIEF SALES OFFICER (CSO)**

// Responsible for international sales, global quality management and product engineering  
// Period of office: 2004 to January 31, 2016



**PHILIPP  
KOECKE**

**CHIEF FINANCIAL OFFICER (CFO)**

// Responsible for the areas of controlling, finance, accounting and investor relations  
// Period of office: 2003 to April 30, 2015



**COLETTE  
RÜCKERT-  
HENNEN**

**CHIEF INFORMATION, BRAND & PERSONNEL OFFICER (CIBPO)**

// Responsible for the areas human resources, brand management, marketing and sustainability as well as IT  
// Period of office: 2011 to June 30, 2014

DR.-ING. E. H. FRANK ASBECK  
CEO OF SOLARWORLD AG



## ***LETTER BY THE CHAIRMAN***

Dear customers, shareholders, employees and friends of SolarWorld AG,

SOLARWORLD was forced to test your patience in recent weeks and months. For the first time, we were unable to release our business figures and financial report according to our normal schedule. We were able to present the 2012 Annual Group Report to you today in its complete version with all details, albeit with the tagline “subject to amendments and unaudited.”

You already know the reason for the delay in publishing the information. At the end of January, we entered into negotiations with creditors concerning the financial restructuring of the company. And true to the nature of such things, such negotiations take time. I know many of you would have preferred that I provide more regular information on the status of events. I had good reason for not doing so. Any updates along the way would have only fueled speculation and wouldn't be helpful to negotiations at that.

Our CFO Philipp Koecke and I, along with many other supporters of our restructuring activities, have been fighting a daily battle to attain a positive outcome for everyone involved. And a positive outcome can only mean one thing: SOLARWORLD is set to persevere. Unfortunately, it means that we need to make serious cuts and take painful measures.

How did SOLARWORLD manage to run into these difficulties in the first place? I can only say it again: We are talking about a serious crisis affecting the entire industry – an industry that was forced to swallow another bitter pill in 2012 when prices of solar power modules plummeted by more than 40 percent. We had to make some major impairments triggered by distortions of the market, the proportions of which no one anticipated. All in all, we did actually sell the same number of solar modules and kits in 2012 as we did the year before. Nevertheless, the group's revenue dipped by 40 percent. This situation hit other manufacturers even harder. Many threw in the towel. The number of cell and module manufacturers in Germany alone shrank by 35 percent within a year.

There's no doubt that excess capacities, dumping prices, and illegal subsidies in the Chinese solar industry are to blame for it. These negative implications of the crisis have also been affecting companies in China for some time now.



We need to return to a fair global market. That's the only way to achieve a sustainable future for the entire industry. By early June 2013, the EU Commission is expected to announce a preliminary decision on imposing anti-dumping duties. The plight of the solar industry would take an upturn if the EU's decision follows the lead of U.S. policymakers.

If this happens, the industry would be able to invest more in the future. The cut-throat price competition was truly detrimental to innovation. Yet, we at SOLARWORLD bucked this trend with reason and invested more in new technologies in 2012 than ever before. As a consequence, our R&D expenditures grew by 80.5 percent in 2012.

Our innovative force will lead our operative business down the path to success once again. Yet, we need to assume that 2013 will also be filled with difficulties and risks for the solar industry and SOLARWORLD alike. We will focus more strongly on launching new products and advancing the market for systems in efforts to increase our revenues compared to 2012. However, it appears that our operative earnings will remain negative in 2013. I expect to be able to successfully conclude negotiations with our creditors. This situation would mean that SOLARWORLD would be set to pay interest and capital repayments out of its operating income in the long term and to generate positive income.

One thing remains clear. In many parts of the world, solar power is on its way to becoming the most economical form of energy, even without subsidies. SOLARWORLD plans to take advantage of this trend. We want to be the leaders in technology in this market and convince customers of the strengths of the SOLARWORLD brand. The notion of sustainability is also firmly positioned in our company.

The future of SOLARWORLD hinges on two things: its ability to successfully restructure finances and re-establish fair competition on the market. We are not only fighting for the future of SOLARWORLD to protect our past achievements. We are fighting because we are thoroughly convinced of SOLARWORLD's ability to thrive in the future.

In the name of the entire Board, I would like to express my gratitude to all employees. Their extraordinary dedication in these difficult times shows: SOLARWORLD is a company worth fighting for.

Yours sincerely,



Dr.-Ing. E. h. Frank Asbeck  
CEO of SolarWorld AG



CHAPTER #2

# KEY FIGURES AND FACTS

1 / 6

— SOLARWORLD CREATES ADDED VALUE —

*WE*

TRANSLATE EXPERIENCE INTO  
**INNOVATION**

With our expertise and passion, we are one of the pioneers in solar power technology: in Europe since 1998 and in the United States for some 40 years. This experience in technology and markets is the basis of our innovative power, which our customers appreciate in our system solutions.



## 2 / KEY FIGURES AND FACTS

**029** SELECTED INDICATORS

**030** QUARTERLY COMPARISON  
OF THE CONSOLIDATED INCOME STATEMENTS

**030** REVENUE BY REGION

**031** DEVELOPMENT OF KEY FIGURES IN FIVE-YEAR COMPARISON

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**032** *Customers and products*

**033** *Employees*

**033** *Supply chain*

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**034** *Innovation*

# SOLARWORLD 2012

SUBJECT TO AMENDMENTS AND UNAUDITED

029

## 01 SELECTED INDICATORS // IN K€

Financial indicators	2012	2011	Change
Revenue	606,021	1,044,935	-42.0 %
Foreign quota in % of revenue	50.4 %	57.6 %	-7.2 %-points
EBITDA	-215,649	208,656	n. a.
EBIT	-492,385	-243,858	101.9 %
EBIT in % of revenue	-81.2 %	-23.3 %	-57.9 %-points
Capital employed (key date)*	667,265	1,300,303	-48.7 %
Consolidated net result	-476,892	-307,134	55.3 %
Consolidated net result in % of revenue	-78.7 %	-29.4 %	-49.3 %-points
Total assets	1,333,564	2,235,773	-40.4 %
Equity	117,771	614,391	-80.8 %
Equity ratio (in %)	8.8 %	27.5 %	-18.7 %-points
Return on equity (in %)	negative	negative	n. a.
Cash flow from operating activities	-50,244	-49,564	1.4 %
Net indebtedness**	780,672	718,524	8.6 %
Investments in intangible assets and property, plant and equipment	46,452	174,482	-73.4 %
<b>Employee indicators</b>	<b>2012</b>	<b>2011</b>	<b>Change</b>
Employee (key date)	2,355	2,702	-12.8 %
of which trainees (key date)	73	82	-11.0 %
Personnel costs ratio (in %)	23.9 %	12.2 %	11.7 %-points
Revenue per employee (in k€)	257	387	-33.5 %
EBIT per employee (in k€)	-209	-90	131.7 %

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

\*\* Financial liabilities less liquid funds and other financial assets

# SOLARWORLD 2012

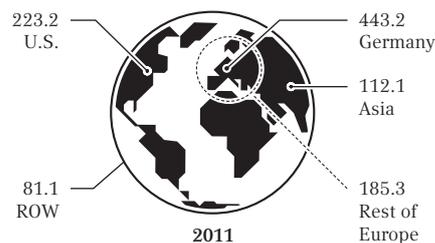
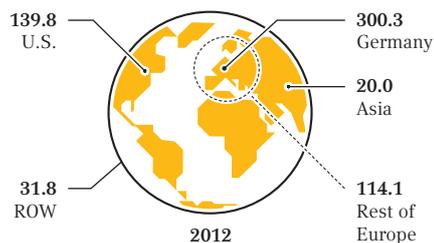
SUBJECT TO AMENDMENTS AND UNAUDITED

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

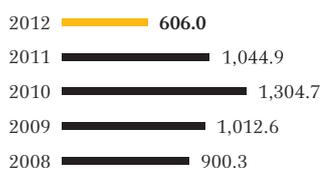
	Q1 2012	Q2 2012	Q3 2012	Q4 2012	Q4 2011	Change
Revenue	170,493	169,587	128,820	<b>137,121</b>	292,537	-53.1 %
Inventory change in products	-8,584	-9,144	8,721	<b>-55,659</b>	-126,319	-55.9 %
Own work capitalized	0	0	55	<b>10</b>	12,634	-99.9 %
Other operating income	83,700	14,950	22,037	<b>32,612</b>	122,105	-73.3 %
Cost of materials	-122,997	-163,356	-119,842	<b>-128,298</b>	-164,474	-22.0 %
Personnel expenses	-36,158	-35,468	-28,881	<b>-29,141</b>	-33,791	-13.8 %
Amortization and depreciation	-21,871	-22,438	-22,080	<b>-210,347</b>	-367,997	-42.8 %
Other operating charges	-37,987	-124,524	-34,612	<b>-49,104</b>	-68,270	-28.1 %
<b>Result of operations</b>	<b>26,596</b>	<b>-170,393</b>	<b>-45,782</b>	<b>-302,806</b>	<b>-333,575</b>	-9.2 %
Financial result	-17,870	-9,062	-20,539	<b>-20,018</b>	-11,620	72.3 %
<b>Pre-income tax result</b>	<b>8,726</b>	<b>-179,455</b>	<b>-66,321</b>	<b>-322,824</b>	<b>-345,195</b>	-6.5 %
Taxes on income	-9,015	18,477	-2,406	<b>75,925</b>	26,862	182.7 %
<b>Consolidated net result</b>	<b>-289</b>	<b>-160,978</b>	<b>-68,727</b>	<b>-246,899</b>	<b>-318,333</b>	-22.4 %

## 03 REVENUE BY REGION // IN M€

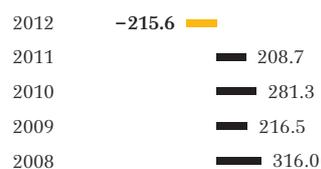


#### 04 DEVELOPMENT OF KEY FIGURES IN FIVE-YEAR COMPARISON

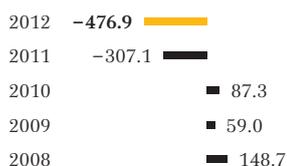
##### Revenues (in m€)



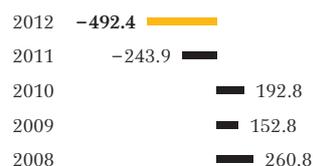
##### Ebitda (in m€)



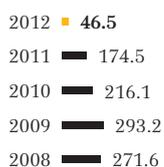
##### Group profit/loss (in m€)



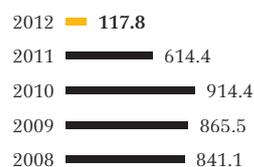
##### Ebit (in m€)



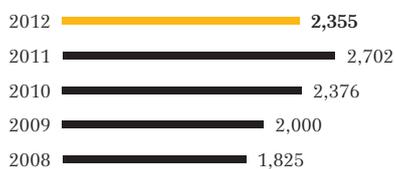
##### Investments excl. financial investments (in m€)



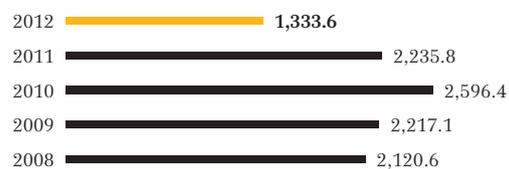
##### Equity (in m€)



##### Employees



##### Balance sheet total (in m€)



# SUSTAINABILITY PERFORMANCE

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## 05 ENVIRONMENTAL PROTECTION

NAME AND DESCRIPTION	2011	2012	2013
<b>Energy efficiency:</b> Total energy consumption (in primary GJ, calculated, preliminary)	5,082,495	3,944,167	↑
<b>Water consumption:</b> Total water take-out (in m <sup>3</sup> , estimated, preliminary)	1,466,030	1,260,735	↑
<b>Water consumption:</b> Waste water discharge (in m <sup>3</sup> , estimated, preliminary)	1,404,641	997,022	↑
<b>GHG emissions:</b> Total GHG emissions (in tCO <sub>2eq</sub> , calculated, preliminary)	188,639	139,372	↑
<b>Emissions:</b> NO <sub>x</sub> , SO <sub>x</sub> and other air emissions (in t, estimated, preliminary)	42	38	↑
<b>Waste:</b> total production waste (in t, estimated, preliminary)	21,827	14,811	↑
<b>Environmental compatibility:</b> Share of ISO 14001 certified locations (weighted by average capacity)	100 %	100 %	↔
<b>Packaging:</b> Material (in t, calculated, preliminary)	3,209.99 t (plus 807.10 m <sup>3</sup> )	2,744.42 t	↑
<b>Environmental violations:</b> sanctions due to environmental violations	0	0	0

## 06 CUSTOMERS AND PRODUCTS

NAME AND DESCRIPTION	2011	2012	2013
<b>Customer satisfaction with SOLARWORLD:</b> Share of satisfied customers among all respondents (measured, final)	93.6 %	93.8 %	↔
Aggregate number (trade: wholesalers, specialist partners)			
<b>Earnings from new products:</b> with life cycles of less than 12 months (estimated, final)	40 %	55 %	↔
<b>Health and safety aspects of the products:</b> Share of product recalls for safety or health reasons in total number of products sold	0	0	0
<b>Customer loyalty:</b> Share of new customers (specialist partners, estimated, final)	20 %	64 %	↔
<b>Customer loyalty:</b> Market share (total, calculated, final)	4 %	2 %	↑
<b>Sanctions due to product and service conditions</b>	0	0	0

## 07 EMPLOYEES

NAME AND DESCRIPTION	2011	2012	2013
<b>Employment type:</b> share of temporary employees	16 %	8 %	↔
<b>Employee turnover:</b> share of employees leaving the company per year	15.5 %	16.4 %	↓
<b>Collective bargaining agreements:</b> share of employees covered by collective bargaining agreements	51 %	50 %	↔
<b>Training and professional development/qualification:</b> average training expenditure per employee (in €)	394.17	310.90	↑
<b>Age structure of the workforce</b> (persons)	≤30: 28 % 30-40: 31 % 40-50: 25 % >50: 16 %	≤30: 23 % 30-40: 33 % 40-50: 28 % >50: 17 %	↔
<b>Absenteeism:</b> total missed working time due to sick leave/total planned working time in the calendar year	4.2 %	5.1 %	↓
<b>Accident rate</b> (per 1000 employees, incl. temporary workers)	15.3	14.1	↓
<b>Relocation of work places due to restructuring:</b> total costs of relocation (in k€) including compensation payments, severance pay, outplacement, recruitments, training, consulting	766	162	↔
<b>Diversity:</b> Share of women in total workforce	23 %	24 %	↔
<b>Diversity:</b> share of women in management positions	16 %	17 %	↔
<b>Pay:</b> total amount of all bonus payments (in m€)	5.4	0	↑
We do not grant stock options, but we pay a profit-oriented employee participation model (GOMAB). Further data on this indicator is so far not available.			
<b>Discrimination:</b> number of documented incidents	2	0	0

## 08 SUPPLY CHAIN

NAME AND DESCRIPTION	2011	2012	2013
<b>Certification:</b> ISO 9001 certification of suppliers (2012: measured (at 77.7 % of the direct material suppliers), final; 2011: estimated, final)	Freiberg: >80 % USA: 33 %	86.96 %	↔
<b>Certification:</b> ISO 14001 certification of suppliers (2012: measured (at 77.7 % of the direct material suppliers), final; 2011: estimated, final)	Freiberg: >55 % USA: 20 %	42.40 %	↔
<b>Production loss:</b> difference between planned and actual production due to material bottlenecks (in %)	0	0	↔
<b>Production loss:</b> monetary effects of production loss due to material bottlenecks (in €)	0	0	↔

# SUSTAINABILITY PERFORMANCE

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## 09 COMPLIANCE AND SOCIETY

NAME AND DESCRIPTION	2011	2012	2013
<b>Effects of subsidies:</b> Share of business activity in markets with feed-in tariffs or regulated pricing  The sales share in markets without feed-in tariff or regulated pricing is still below 1 % // Benchmarks: heavily subsidised markets such as nuclear energy, German coal, EU agricultural market	100 %	100 %	↔
<b>Governmental financial assistance:</b> Investment grants and research grants (in k€)	27,844	32,769	↔
<b>Donations to political parties in (k€)</b>	0	0	0
<b>Other donations in (k€)</b>	508	375	↔
<b>Regional development:</b> SOLAR2WORLD project scope (in kWp)	39	78	↑
<b>Litigation risks:</b> Expenditures and fines for lawsuits and court cases regarding anti-competitive behavior, Anti-Trust, monopoly behavior  SOLARWORLD is involved in the trade litigation of the Coalition of American Solar Manufacturers in the U.S. as well as in the trade complaints of EU ProSun in the European Union and has invested the indicated sum for that.	1	3	↓
<b>Corruption:</b> Share of business activity in regions with a corruption index of less than 60	54 %	26 %	↑
<b>Ascertained corruption incidents</b>	0	0	0
<b>Sanctions for non-compliance with laws and regulations</b>	0	0	0

## 10 INNOVATION

NAME AND DESCRIPTION	2011	2012	2013
<b>Innovation:</b> Total R&D expenditures (in m€)	40.4	49.1	↔
<b>Innovation:</b> Total investment in research on ESG relevant aspects  Our entire business (solar energy) is ESG relevant.	100 %	100 %	100 %
<b>Number of inventions filed in the last 12 months</b>	58	71	↑

These and further sustainability performance indicators can be found at [Sustainability in detail](#) • p. S001ff. //



CHAPTER #3

# GROUP MANAGEMENT REPORT 2012

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– SOLARWORLD CREATES ADDED VALUE –

*WE*

PROVIDE THE RIGHT SYSTEM FOR  
**EVERY ROOF**

We put experience and innovation into every detail of our work, whether the solar cells in our modules or the components in our complete kits. SOLARWORLD has a very high degree of solution expertise for solar roof-mounted systems – our customers have confirmed it, as has the response from other market participants.



# 3 / GROUP MANAGEMENT REPORT 2012

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# BUSINESS AND GENERAL CONDITIONS

2012 was another crisis year for the solar industry as a whole. Excess capacities and price deterioration resulted in losses for nearly all companies, and insolvency for many. The business situation of SOLARWORLD also worsened dramatically in the course of 2012. We faced considerable pressure, which continues at present. We took action: We have significantly cut costs across the company. We restructured our production facilities. We started to adjust processes and structures in all areas to the current market situation, making the group as a whole more efficient and better positioned globally. Our primary goal is to return the operational business to profitability. To achieve this, we need to become even faster and more flexible. Our strong SOLARWORLD brand will set us more clearly apart from the solar mass market, so that we can position ourselves as a quality provider of complete solutions for sustainable energy generation. A key requirement for the continuation of business as a going concern is to adapt our financial liabilities to the group's earnings power. This report is based on the assumption that SOLARWORLD will be able to implement its financial restructuring successfully and will thus be able to continue its business as a going concern.

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## PRODUCTS AND SERVICES – POSITIONING

SOLARWORLD supplies customers around the world with solar power modules and complete solar power systems of all sizes. Together with our subsidiary SOLARPARC AG, we also offer investors development and operation services for large-scale solar power plants.

The group has an international distribution network that incorporates the specialist and wholesale trade, together with installers, as intermediaries between us and our private and commercial end customers.

SOLARWORLD concentrates exclusively on crystalline solar power technology as this has held its ground in the renewable energies market, proving to be a particularly efficient and environmentally friendly way of generating power.

The company emphasizes high social standards at all its locations worldwide, and is committed to resource and energy efficient manufacturing. We count on the high quality and tangible value proposition of the SOLARWORLD brand to set us apart from the competition. An integrated quality and innovation process across all stages of production provides the basis for this. Our complete solutions for solar energy generation are our company's market-differentiating benefit.

## STRATEGY AND ACTION

The consolidation phase within the solar industry intensified in 2012. This difficult market situation will continue in 2013. Our first priority, therefore, is to safeguard the continued existence of SOLARWORLD and return to profitability.

**COST SAVINGS AND GREATER EFFICIENCY IN ALL AREAS.** In 2012, SOLARWORLD succeeded in achieving cost savings in all areas of the group – for example by securing a significant improvement in purchasing terms. (→ Procurement • p. 076 // Staff cutbacks were necessary, too. In addition, we scrutinized all processes and structures and pushed further forward with the transformation of the entire group into a more global and therefore more efficient organizational unit. Our employees will help to shape the process of change with the close involvement of the human resources department. (→ Employees • p. 077 //

**RETURN THE OPERATIONAL BUSINESS TO PROFITABILITY.** It is critical for the future of SOLARWORLD that the operational business returns to profitability. We need to increase shipments and revenue, and achieve higher margins, to improve the operating result. At the same time, SOLARWORLD will consistently maintain its positioning as a quality supplier under a strong brand. With a differentiated and clear value proposition, we want to increase our value to SOLARWORLD customers, thereby stabilizing the price level.

We are focusing on our international sales and on innovation and production. In these areas, we completed and launched new strategic and operational measures in 2012.

## SALES FOCUS

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**INCREASE SHIPMENTS THROUGH STRONG CUSTOMER RETENTION AND INTERNATIONALIZATION.** Germany and the United States are still our most important sales regions. In these established markets, we aim to further increase ties between wholesalers, installers, and the SOLARWORLD brand. The further internationalization of our business is also strategically important. Especially in the young, emerging export markets, we see growth potential and opportunities to occupy lucrative niches. To prepare for market entry, we are working increasingly closely with local partners. Already we have successfully exported SOLARWORLD's specialist partner concept to a number of European markets.

**EXPAND THE PROJECT BUSINESS.** As well as expanding into new sales markets, we also want to develop new business areas. Accordingly, via our subsidiary SOLARPARC AG, we are planning a significant expansion of our project business in selected international markets. Large-scale projects create an additional pipeline for shipments of our products. Moreover, as a supplier of complete solutions and as a developer and operator of large-scale solar power plants, we can achieve higher margins than in the pure module supply business, which has developed into a commodity market due to oversupply.

**OFFER COMPLETE SYSTEMS.** Our goal is to become successively independent of the components sector, where we supply solar modules and wafers. SOLARWORLD is therefore focusing more on the end customer business, offering complete systems. We want to be seen as a supplier of high-value solutions which enable private and commercial users to generate clean, cost-efficient energy. Self-consumption is one of the keys here. This is why, in our product portfolio, we will also continue to place an emphasis on systems that allow our customers to store solar power and increase their self-consumption. SOLARWORLD will pursue innovations that make solar power highly attractive from a cost standpoint, even without subsidy mechanisms. ↻ *The future solar power market • p. 122 //*

## INNOVATION AND PRODUCTION FOCUS

**EXPLOIT INNOVATIONS FROM GROUP'S OWN RESEARCH AND DEVELOPMENT.** For SOLARWORLD to survive in the face of competition from businesses in low-wage countries, it is essential to develop an innovative edge, and with it the associated cost advantages in production. The core product that we manufacture is the solar power module, which with the addition of advanced system technology offers a solution for specific customer and market requirements. Innovations in our cell technology significantly increase the output from our modules. As a result, we create a benefit for our customers and simultaneously reduce our production costs. Furthermore, we develop system innovations to meet our customers' requirements. In addition, in 2013, we will use a new crystallization process that significantly improves the manufacturing costs of monocrystalline products. They also stand out optically. SOLARWORLD engineers developed this process largely by themselves.

**BE FASTER AND MORE FLEXIBLE.** Solar markets of the future will continue to be highly dynamic, with fluctuations in demand. We want to transfer new processes into production in a shorter time, and bring new products onto the market more quickly, by identifying adjustment needs earlier on from systematic customer feedback. Since 2012, our supply chains have been organized more in line with our needs, and we have agreed more suitable purchasing terms with suppliers. Procurement at SOLARWORLD is globally based, enabling it to fulfill its strategic function of reducing costs and managing commodity flows more flexibly. ➔ Production • p. 063 // Procurement • p. 076 // Employees • p. 077 //

## GROUP STRATEGIC FINANCING

Group financing is handled centrally by SOLARWORLD AG, which also acts as a holding company. Controlled directly by the Management Board, SOLARWORLD AG is responsible for group liquidity planning and controlling, and for raising capital. ④⑦ Five-year comparison of asset position • p. 092 // ④⑤ Five-year comparison of financial position • p. 090 //

In addition to the funds generated from the operating cash flow, we have used various external financing instruments. These include, in particular, assignable note loans (Schuldscheindarlehen) in various tranches with a total volume of € 356 million and two corporate bonds issued by SOLARWORLD AG with a nominal value of € 400 million and € 150 million.

As the wave of consolidation has advanced within the solar industry, stocks and bonds issued by all solar companies have suffered hefty price declines. The solar index SOLEX, for example, has fallen by more than 75 percent over the last two years, making solar stocks far less attractive to long-term investors. These dramatic developments significantly reduce the possibility of refinancing via the capital markets.

Another consequence of the distortions in the solar market has been that some lenders have pulled out of financing the solar industry and other related sectors, since the high risk situation among solar companies combined with significantly tighter lending rules for risk investments have made banks more cautious. As a result, this hinders raising capital. The same applies to borrowing on the capital market by issuing corporate bonds and similar instruments.

Given the difficult financing situation, we plan to adjust our existing financial liabilities in line with the company's earnings power. In other words, through negotiation, we want to ensure that the company's liabilities do not exceed a level at which the company can pay interest and capital repayments out of its operating income in the long term, and furthermore is able to generate income so that it also achieves a return on its equity. In addition, we are seeking suitable strategic investors so that we can put SOLARWORLD's financing back on a secure footing.

In the short to medium term, we will take the following steps:

- Restructure liabilities of the group including serious reductions in the company's liabilities (→ *Necessary restructuring and positive going concern prognosis* • p. 094//
- Improve working capital management

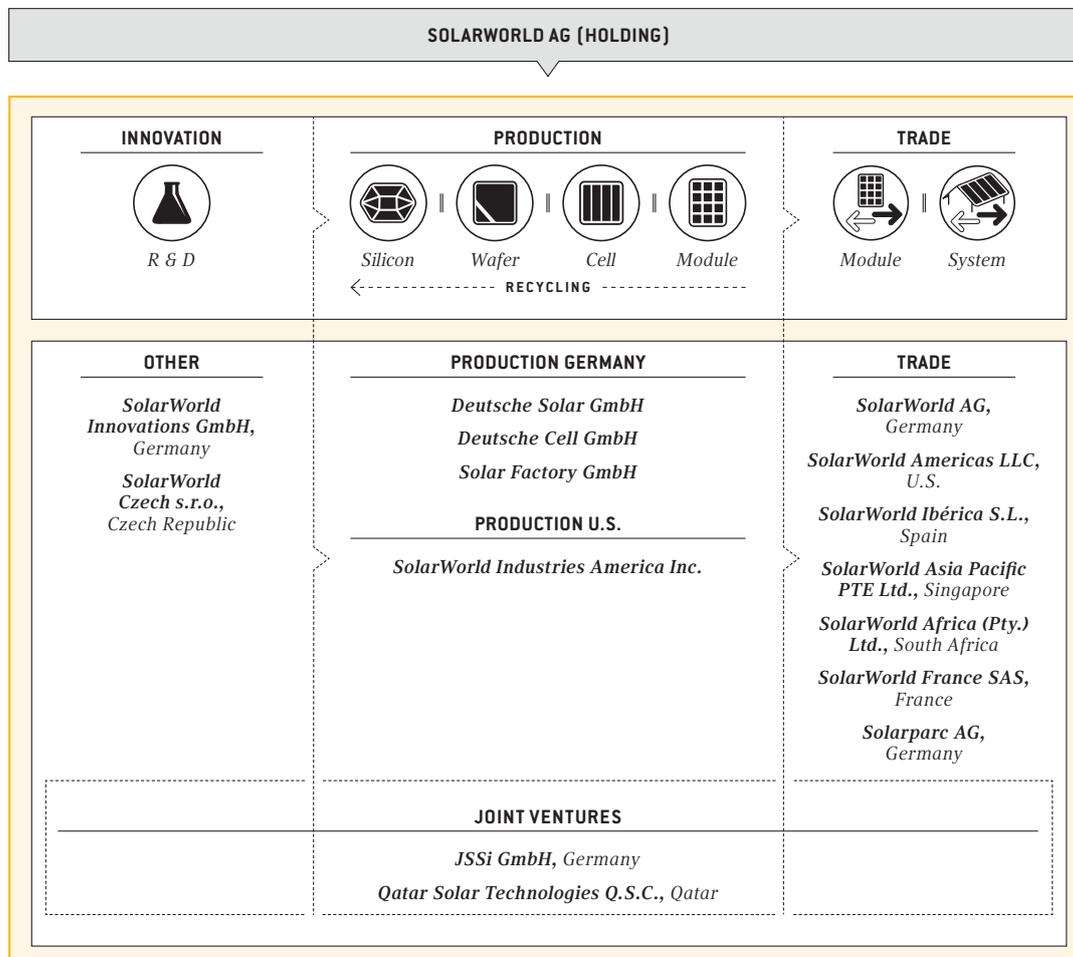
## GROUP STRUCTURE AND SEGMENTS

**BUSINESS FOCUSED FURTHER TOWARD THE END OF THE VALUE CHAIN.** SOLARWORLD's core business is the production of solar modules and international sales of modules and complete solar power systems. The company also develops and operates large-scale solar projects. Its production facilities cover the entire manufacturing chain from wafers to cells to modules. SOLARWORLD also conducts its own research and development activities. Due to general market trends, external wafer shipments currently play a minor role. Instead, the group has shifted its business focus further toward the end of the solar value chain.

**SOLARWORLD AG OPERATES AS A HOLDING COMPANY.** SOLARWORLD AG is the parent company of the SOLARWORLD group. It emerged from the sole proprietorship, Frank H. Asbeck, Ingenieurbüro für Industrieanlagen (Engineering Office for Industrial Plants), which was established in 1988. On March 26, 1999, SOLARWORLD AG was entered in the Register of Companies of the local court of the City of Bonn, under number HRB 8319, as a stock corporation under German law. As the holding company, SOLARWORLD AG performs central group functions such as group controlling, group accounting, finance, investor relations and communication. The Management Board of SOLARWORLD AG is responsible for group management. The corporate audit and sustainability management report directly to the board as staff departments.

**GLOBAL ORIENTATION OF KEY STRATEGIC AREAS STRENGTHENED.** In addition to its role as a holding company, SOLARWORLD AG is home to the group's international distribution center. As the parent company, SOLARWORLD AG also develops and directs global strategies and activities in key areas such as procurement, human resources, product management, logistics, production planning and IT, which are then implemented together with the subsidiaries at local level. The global orientation of these strategic areas was reinforced organizationally and structurally in 2012 to enhance the group's efficiency.

11 SEGMENT STRUCTURE AND STAGES OF THE VALUE CHAIN



**SEGMENT STRUCTURE RETAINED.** As in past years, SOLARWORLD’s operational business was divided into four segments: “Production Germany”, “Production U.S.”, “Trade”, and “Other”. These provide the structure for our internal organization, reporting and management. The “Production Germany” and “Production U.S.” segments each comprise the regionally coherent and fully integrated production activities. The “Trade” segment covers international sales of modules, complete kits and systems. It also includes income generated by our subsidiary SOLARPARC AG from electricity sales, project planning,

and the sale and operation of wind farms and solar power stations. Business activities where the financial impact is not or is no longer crucial to the assets, financial and income position of the group are included in the “Other” segment.

**SLIGHT REDUCTION IN NUMBER OF COMPANIES.** At cut-off date, December 31, 2012, the SOLARWORLD group comprised a total of 55 (Dec. 31, 2011: 61) companies. These included 34 subsidiaries and affiliates of SOLARPARC AG. (75) [SolarWorld group structure as at December 31, 2012 • p. 160//](#)

At the Freiberg location, on July 1, 2012 the raw materials subsidiary SUNICON GMBH merged with DEUTSCHE SOLAR GMBH. Solar Cycle GmbH, which was set up in 2011, was closed down in 2012 while still in the planning phase as the joint venture partner could not develop an economically viable solution for the module recycling operation. Work in this area will continue at DEUTSCHE SOLAR GMBH, a wholly owned subsidiary of SOLARWORLD AG. In addition, our subsidiary SOLARPARC AG sold its wind portfolio during the year 2012, which contributed to the reduction of the number of consolidated companies. (→) [Structural changes implemented at start of value chain • p. 064//](#)

In 2012, SOLARWORLD opened sales offices in Japan and the UK. (→) [Trade • p. 057//](#)

## CORPORATE MANAGEMENT AND CONTROL

**STRATEGIC GROUP MANAGEMENT.** The Management Board determines corporate objectives from SOLARWORLD’s strategy and reassesses them annually. They are broken down into divisional targets so that they can be implemented by employees at all levels. The Board members maintain constant dialog with each other. Moreover, they convene for a regular meeting every month, at which they talk about the business situation, discuss opportunities and risks, review target achievement and adjust targets if necessary. The Management Board introduces necessary measures in close consultation with the management bodies of group subsidiaries. In addition, members of the Management Board and managing directors of the subsidiaries meet several times a year in the Strategy Council. Here, the respective regional and market-specific circumstances are also taken into account. This body decides on additional short to medium-term goals and measures.

Revenue and EBIT are the primary financial control indicators used by the SOLARWORLD group. Group controlling continuously monitors these and other department-specific indicators in a target/actual comparison, and produces a monthly report for the Management Board. This report reflects the structure of the group's operating divisions, which are the same as the operating segments used for financial reporting purposes, namely "Production Germany", "Production U.S.", "Trade" and "Other".

⑭ Segment structure and stages of the value chain • p. 042// In view of the consolidation phase in the solar industry, strict control of our liquidity situation has assumed even greater importance. In 2012, we stepped up our cash flow planning and monitoring activities.

Over the course of the fiscal year, we made further refinements to the monitoring system in the "Trade" segment. As a result, we can now identify trends in the price and quantity structure at an early stage, and rapidly introduce necessary measures. As in the past, the Management Board receives a weekly summary of shipments, revenue and stock levels in the "Trade" segment. In addition, on a monthly basis, more detailed analyses and target/actual comparisons of shipments and revenue by product groups, regions and customers, of sales costs, and finally of the EBIT margin that is achieved are produced in standardized form and reported to the Management Board.

In the "Production Germany" and "Production U.S." segments, there was a stronger focus on EBIT trends than previously. It is also important, however, to analyze the development of production costs per unit and watt-peak, as well as the production volume including an account of individual cost drivers such as material usage and labor intensity. In addition, we monitor our production processes based on the average production output (MW/day) and yield ratio (production output less rejects). Based on all these figures, group management monitors and manages measures to increase efficiency and reduce costs in production.

Non-financial indicators such as productivity figures, customer satisfaction, employee recruitment and retention, and resource consumption supplement the financial control indicators. ☉ Sustainability in detail • p. S032//

To be able to assess customer satisfaction and forecast market trends, we rely in part on information obtained from dialog with our customers. In 2012, we introduced a process for conducting systematic customer surveys across the entire distribution chain. The regular, reliable input from this instrument enables us to further increase our competitive strength and react more quickly to market changes.

**INTERNAL CONTROL SYSTEM.** The internal control system (ICS) in the SOLARWORLD group includes various mechanisms and has a decentralized structure. At the same time, group controlling, group accounting and the corporate audit perform oversight control functions. Group controlling is responsible for monthly reporting of the segment-based financial indicators and for the risk management system. Financial circumstances are also taken into account here. Group accounting ensures that accounting is uniform and complies with legal requirements and standards as well as the group's internal guide-

lines and generally accepted accounting principles. ➔ Internal control and risk management system in relation to the group accounting process • p. 101// Corporate audit pursues an integrated, risk-oriented and systematic approach in its audits. One of its aims is to assess the reliability of the risk management system and internal control system. Corporate audit examines operational processes in respect of regularity, security, safety and efficiency criteria and compliance with legal requirements and company policies. As an instrument of the Management Board, the corporate audit is organizationally and functionally independent of the bodies it audits, thus enabling the proper performance of its duties. Corporate audit can autonomously determine the scope of the audit and reporting.

**COMPLIANCE MANAGEMENT SYSTEM.** Furthermore, in 2012, we restructured and enhanced the group's compliance management system. We aim to prevent non-compliance by developing a heightened awareness of potential compliance risks and taking suitable precautions. The aim is also to rapidly identify specific incidents, deal with them professionally, and in turn introduce improvement measures to prevent further incidents.

Thus, in 2012, a Global Compliance Officer was appointed along with a local compliance officer for each site, and a compliance committee was formed. The committee is an interdepartmental supervisory body that advises on development of the compliance management system and on specific incidents in the company, and approves necessary measures. It meets on a quarterly basis with additional ad hoc meetings if necessary.

In 2012, the compliance committee conducted a risk assessment for the group, which was used to identify the main risk areas. In the departments concerned, awareness-raising training was implemented to address these issues.

An important milestone in 2012 was the comprehensive revision of the Code of Conduct, which is applicable throughout the group. The new version was communicated to all employees in February 2013. It aims to provide guidance to employees and help them ensure their conduct is in line with key values such as integrity, sustainability and social responsibility. In addition, SOLARWORLD SpeakUp was launched. Operated by a European service provider, the system enables anonymized notification of potential compliance-relevant incidents to the compliance committee by telephone or via an Internet portal. Furthermore, this system enables dialog – while safeguarding anonymity – between the person providing the information and the Global Compliance Officer. This allows compliance notifications to be dealt with effectively.

## DISCLOSURE RELEVANT FOR TAKEOVERS

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

The provisions concerning the appointment and dismissal of Management Board members as well as amendments to the Articles of Association (§ 315 (4) No. 6 HGB) result from the German Stock Corporation Act. Regarding Management Board powers (§ 315 (4) No. 7 HGB), reference is made to the Stock Corporation Act. In addition, the following applies:

At the Annual General Meeting (AGM) on May 20, 2010 the authorizations to increase the nominal capital approved during previous AGMs were canceled. At the same time, the Board of Management was authorized with the approval of the Supervisory Board, to increase nominal capital once or several times to a total of up to € 55,860,000.00 for a period of five years, i. e. until May 20, 2015, by issuing new, no-par bearer shares or registered shares in exchange for cash contributions or contributions in kind.

As of the cut-off date, financial liabilities amounting to converted € 931 (2011: € 1,115) million existed for which creditors can demand early repayment in the event of a change of control (§ 315 (4) No. 8 HGB). A change of control shall be deemed to occur if and when one party (with the exception of Dr.-Ing. E. h. Frank Asbeck, members of his family or companies controlled by any of the aforementioned parties), directly or indirectly holds more than 50 percent of the voting rights concerning the shares issued or acquires the possibility to nominate or elect the majority of Supervisory Board members, or to cause such a nomination or election to take place.

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

## REMUNERATION OF MANAGEMENT BOARD AND SUPERVISORY BOARD

The remuneration system for the Management Board and the Supervisory Board is outlined in the  [Remuneration Report](#) • p. 139//. This report is part of the group management report.

# BUSINESS DEVELOPMENT IN THE YEAR 2012

In 2012, government indebtedness continued to increase around the world, while the global economy remained weak. Against this backdrop, the crisis in the solar industry intensified. Although global demand increased in 2012, at the same time all manufacturing solar companies had to contend with a price decline of around 40 percent and continuing oversupply. SOLARWORLD's shipment volume stagnated, and our fiscal year was marked by falling revenues. We had to adjust our production capacities to a demand situation that was difficult to predict and fluctuated strongly by region. We implemented extensive cost-cutting measures throughout the group. Despite this, we were not able to compensate for the heavy loss of revenue, and therefore had a significantly negative operating result in 2012.

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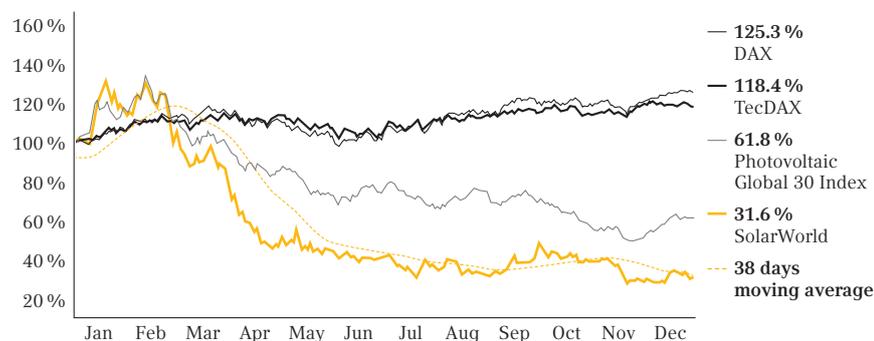
## THE STOCK

**POSITIVE CAPITAL MARKET DEVELOPMENT – SOLAR STOCKS UNDER PRESSURE.** The capital markets showed a positive overall trend in 2012, which was, however, substantially curbed by sizeable falls in stock prices in the second quarter. Three events lifted financial markets in the first quarter: the European fiscal pact coming into effect, the agreement on a rescue package for Greece, and positive outcomes from the bank stress test ordered by the U.S. central bank. For a while, in the second quarter, stock prices fell significantly due to new threats to the stability of the European Monetary Union caused by talks of a Greek exit and an expansion of the sovereign debt crisis into Cyprus. From mid-year, the European Central Bank's expansionary monetary policy, accompanied by a significant reduction in prime rates and the purchase of government bonds, generated a noticeable upturn in German and international capital markets. In addition, at year-end, robust U.S. economic data and an expansionary policy by the U.S. central bank, together with a recovery in leading indicators for Germany and China, encouraged further stock price gains.

Thus, the German stock index – the DAX – was up by 29 percent compared to the start of the year, closing at 7,612 points, its highest level since January 2008. The TecDAX followed a similar pattern, closing at 828 points on the cut-off date to record an increase of 21 percent.

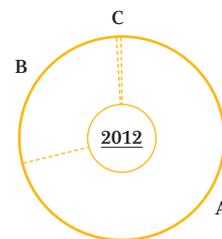
### 12 THE SOLARWORLD STOCK IN COMPARISON

Source: Deutsche Börse, 2013



### 13 SHAREHOLDER STRUCTURE

as at 31.12.2012



A // Free float	71.33 %
B // Dr.-Ing. E. h. Frank Asbeck	27.84 %
C // SolarWorld AG (treasury stock)	0.83 %

### 14 FIVE-YEAR COMPARISON OF SOLARWORLD STOCK INDICATORS

	2008	2009	2010	2011	2012
Year's closing price (€)	15.10	15.33	7.47	3.25	1.06
Year's opening price (€)	41.90	15.60	15.20	7.65	3.36
Performance over the year	-64.0	-1.7	-50.9	-57.5	-68.5
Number of stocks	111,720,000	111,720,000	111,720,000	111,720,000	111,720,000
Treasury stock as at December 31	0	0	4,838,723	924,607	924,607
Market capitalization as at Dec. 31 (€ million)	1,687.0	1,712.7	834.5	363.1	118.4
Highest price (€)	40.92	23.78	16.61	11.95	4.38
Lowest price (€)	11.23	12.24	7.00	2.61	0.95
Earnings per stock (€)	1.33	0.53	0.80	-2.77	-4.30
Price-earnings ratio*	11.4	28.9	9.3	n. a.	n. a.
Amount distributed (€ million)	16.8	17.6	21.1	10.0	0.0
Dividend payout ratio (%)	21.8	16.4	24.1	99.2	0.0
Dividend per stock (€)	0.15	0.16	0.19	0.09	0.0

\* Year's closing price/earnings per stock

### 15 INDICES IN WHICH SOLARWORLD WAS LISTED IN 2012

GERMANY	GLOBAL	
TecDAX // Technology companies	MSCI World // Industry	Global Challenges Index (GCI) // Environment
ÖkoDAX // Renewable energies	MSCI Global Climate Index // Climate change	Photovoltaik Global 30 Index // Solar
DAXplus Family 30 // Owner-managed companies	NAI // Environment	MAC Global Solar Energy Index // Solar
	PPVX // Solar	WilderHill New Energy Global Innovation Index NEX // Renewable energies
	RENIXX // Renewable energies	

As the industry crisis intensified, the performance of solar stocks went against the market trend. The Photon Photovoltaic Stock Index (PPVX) lost around 33 percent in the period under review, the World Solar Energy Index (SOLEX) fared even worse, falling by 39 percent, and the Photovoltaik Global 30 Index also dropped by a similar 38 percent overall. Investors were particularly concerned about the continuing shake-out in the solar industry, which was marked by numerous insolvencies and increasing indebtedness for many solar manufacturers. In Germany, continuing fierce debate over a fundamental revision of the Renewable Energy Sources Act (EEG) and bumpy implementation of the amendment to the act created additional uncertainty.

In the period under review, the SOLARWORLD stock (ISIN: DE0005108401) suffered large declines in price due to the significantly heightened risk situation and negative earnings situation within the solar industry. Compared to the start of the year, it lost a total of 68 percent to close at € 1.06 on the cut-off date. The highest price during the year was € 4.38, the lowest € 0.95. <sup>(14)</sup> *Five-year comparison of Solar-World stock indicators* • p. 048//

**CAPITAL STOCK OF SOLARWORLD AG UNCHANGED.** In the reporting period, SOLARWORLD AG's capital stock remained unchanged and stands at 111,720,000 no par value bearer shares with an imputed nominal value of € 1.

**SHAREHOLDER STRUCTURE OF SOLARWORLD AG SLIGHTLY CHANGED.** In the year under review, no notifications pursuant to § 21 Sec. 1 sentence 1 of the German Securities Trading Act (WpHG) and § 26 Sec. 1 sentence 2 WpHG were issued. On June 6, 2012, in compliance with § 15a (4) of the WpHG, we announced that Eifelstrom GmbH, a company affiliated with the CEO, purchased 45,000 shares of SOLARWORLD AG. As a result, the stake held by Dr.-Ing. E. h. Frank Asbeck in SOLARWORLD AG slightly increased to 27.84 (Dec. 31, 2011: 27.8) percent. @ [www.solarworld.de/en/directors-dealings/](http://www.solarworld.de/en/directors-dealings/)

On the cut-off date, 71.33 percent of shares were in free float.

**NO TREASURY STOCK ACQUIRED.** In the reporting period, SOLARWORLD AG did not make use of the authorization issued by the Annual General Meeting on May 20, 2010 to acquire treasury stock pursuant to § 71 Sec. 1 No. 8 of the German Stock Corporation Act (AktG). No additional treasury stock was acquired in 2012. On the cut-off date of Dec. 31, 2012, SOLARWORLD AG held 924,607 no par value shares. On the cut-off date, pursuant to § 71b AktG, a total of 110,795,393 no par value shares carried dividends and voting rights. This is equivalent to a stake of 99.17 percent.

**ANNUAL GENERAL MEETING APPROVED TO ALL AGENDA ITEMS.** SOLARWORLD AG's thirteenth Annual General Meeting (AGM) was held on May 24, 2012 in Bonn, Germany. Some 750 shareholders and shareholders' representatives attended in all. They represented 37.16 percent of the capital stock with voting rights. The AGM consented to all agenda items and a significant majority granted approval for the

actions of the Management and Supervisory Boards. @ [www.solarworld.de/agm-2012](http://www.solarworld.de/agm-2012)// The AGM also decided to pay a dividend of € 0.09 for the 2011 fiscal year (€ 0.19 for the 2010 fiscal year). Dividends were paid out on May 25, 2012. ☞ [Expected dividend and distribution • p. 130](#)//

**CAPITAL MARKET COMMUNICATION CONTINUED.** A vivid dialog with investors, analysts and shareholders continued to be a high priority in the period under review. Thus, in the context of various roadshows and conferences, we held numerous group and one-on-one meetings with institutional investors and analysts on both the equity and fixed income side. These meetings focused on the corporate strategy, the groupwide restructuring processes, financial stability and SOLARWORLD's positioning in the tough competitive environment.

The 2011 Annual Group Report for SOLARWORLD AG once again placed among the top three in the TecDAX category in the longstanding “best annual report” competition run by Germany's *Manager Magazin*.

## MAJOR BUSINESS EVENTS

**DIFFICULT FISCAL YEAR WITH NEGATIVE FIGURES.** SOLARWORLD was affected by the generalized crisis in the solar industry in 2012. As expected, shipments of wafers fell considerably. While shipments of kits and modules remained stable, this was by no means enough to compensate for the price decline of around 40 percent. Production did not run at full capacity. We had to part company with most of our temporary workers, and we also reduced our groupwide workforce by 13 percent. The group's revenue was significantly below the previous year's level, and the operating result was negative. ☞ [Development of revenue and profit or loss • p. 083](#)//

**COVENANTS RENEGOTIATED.** Over the course of the year, the business situation deteriorated noticeably so that SOLARWORLD could not fulfill its covenants. In light of this, during 2012 we renegotiated with the lenders all loan agreements that were dependent on covenants and adjusted them. ☞ [Financing analysis • p. 088](#)// SOLARWORLD group however also failed to meet the agreed covenants at December 31, 2012. Hence, creditors of borrowed funds in a nominal amount of € 404.5 million (mostly from issued *Schuldscheine*) are currently entitled to give notice in an exceptional case. Since the ad hoc announcement of January 24, 2013, the company has been constructively negotiating with the respective creditors to agree on a financial restructuring concept that in combination with the implementation of necessary operational measures will enable the company's going concern. ☞ [Supplementary Report • p. 094](#)//

**SOLARPARC AG INTEGRATED.** At the start of the year, after SOLARWORLD AG had exceeded the threshold of 95 percent of the voting rights in SOLARPARC AG, it was possible for SOLARPARC AG to be fully integrated into the SOLARWORLD group. In the second half-year, following a successful squeeze-out process, SOLARPARC AG was delisted and incorporated as a wholly owned subsidiary into the SOLARWORLD group's consolidated entity. As a result, SOLARWORLD AG is able to expand its strengths in the project business and grow internationally. (39) Successes achieved with large-scale plants thanks to Solarparc • p. 058//

**TWO NEW SALES PRESENCES ESTABLISHED IN THE UK AND JAPAN.** With our two new sales offices, we aim to develop new customer contacts in the growth markets of Japan and the United Kingdom, and boost our international presence. (40) Trade • p. 057//

## THE MARKET

**OUR MAIN SALES MARKETS.** SOLARWORLD group has eleven sites in eight countries. We serve the important international solar markets from our sales offices in Germany, Spain, France, the United States, Singapore and South Africa. In addition, in 2012, we established sales bases in Tokyo, Japan, and in Salisbury, United Kingdom, to strengthen our presence in these important markets.

Once again in 2012, Germany was our most important sales region, accounting for 44 (2011: 42) percent of revenue. With a revenue share of 24 (2011: 18) percent, Europe (not including Germany) became our second-strongest sales region, followed by the U.S. with 23 (2011: 21) percent of revenue. Asia, Africa and Latin America made up the other 10 (2011: 18) percent. (41) Revenue by region • p. 030//

**WEAK ECONOMIC DEVELOPMENT.** Global economic output slowed again in 2012. The ongoing sovereign debt crisis in the euro area had a negative impact both on investment and on the job market. As a result, private consumption also floundered. Structural changes in industry and reduced government consumption were another brake on the economy. The euro area, an important sales region for SOLARWORLD, slipped into recession during 2012. (42) Economic development of our main sales markets • p. 053//

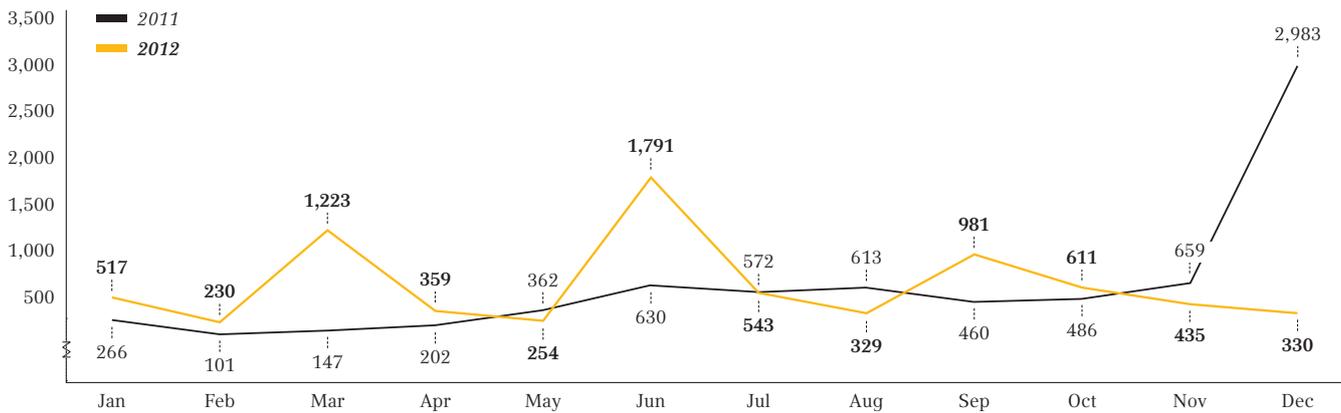
16 TIMETABLE FOR EU PROSUN TRADE COMPLAINT

Source: EU ProSun, www.prosun.org



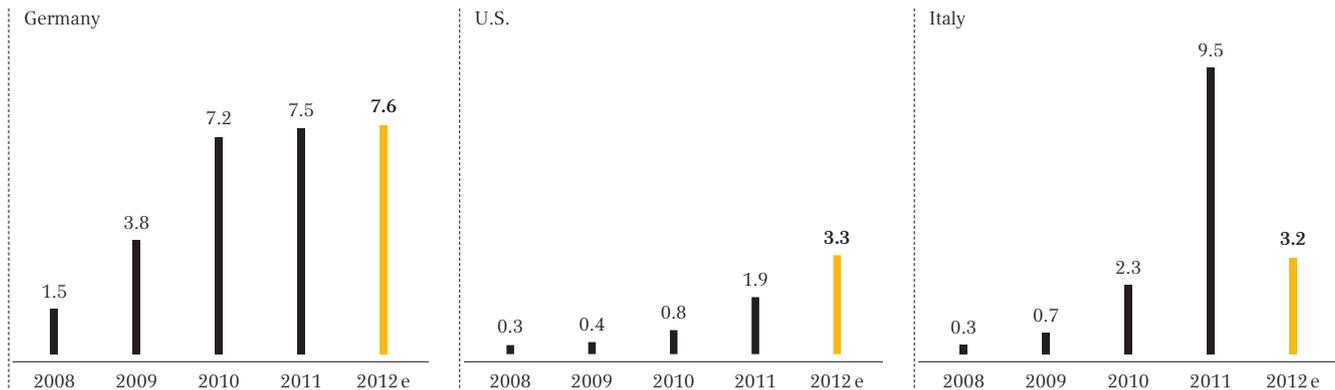
17 NEW SOLAR POWER INSTALLATIONS IN GERMANY // IN MW

Source: German Federal Network Agency, 2013



19 HISTORICAL DEVELOPMENT OF OUR MAIN SALES MARKETS // IN MW

Source: German Network Agency, SEIA, GSE; 2013



Although the German economy continued to grow in 2012, it grew more slowly than in the previous year. Strong exports and rising private consumption due to positive developments in the German employment market boosted the domestic economy. Construction investment in residential property also increased – a consequence of rising demand for physical assets instead of financial products. Overall, gross domestic product grew by 0.7 percent.

The U.S. recorded moderate growth in its economic output in 2012. For the first time in two years, government spending grew and the job market picked up a little, if more slowly than expected. Even though private consumption and corporate investment grew only hesitantly, there was positive economic growth of 2.2 percent.

#### 19 ECONOMIC DEVELOPMENT OF OUR MAIN SALES MARKETS\* // IN PERCENT

Source: Kiel Institute for the World Economy, 2013

	2011	2012	2013 e	2014 e
Germany	3.0	0.7	0.3	1.5
United States	1.7	2.2	1.5	2.5
Euro area	1.4	-0.5	-0.2	0.9
World	3.9	3.2	3.4	3.9

\* measured according to gross domestic product

In the oil market, the relationship between supply and demand eased in 2012. Weak economies in industrialized countries resulted in a fall in the OECD demand for oil. In the emerging economies, however, demand continued to grow. Overall, global oil consumption grew only slightly by just over 1 percent to 89.2 (2011: 88.3) million barrels per day. Despite political unrest in oil-producing countries such as Syria, Libya and Sudan, the annual average oil price was virtually unchanged on the previous year. A barrel of WTI crude cost an average of US\$ 94.12 (2011: 94.86).

**GLOBAL SOLAR MARKET EXPERIENCING SUBDUED GROWTH.** Contrary to analysts' and market experts' initial expectations, global demand for solar products did not stagnate in 2012. However, growth was less strong than in previous years. Global newly installed capacity rose by 10 percent to 33 (2011: 30) GW. However, demand was not sufficient to utilize excess capacities in the market, which meant that the wave of consolidation continued.

Aggressive pricing in the solar industry led to further drastic price declines for silicon, wafers, cells and modules. Over the course of the year, the spot price for silicon fell by 35 percent, reaching its lowest point in December at an average of US\$ 17/kg. Similar developments were seen across all production stages. Because of their weak sales and falling prices, many cell manufacturers were not able to meet their wafer purchasing obligations. They did not fulfill their long-term contracts, or terminated

them prematurely. SOLARWORLD, as a wafer supplier, was also affected by this situation: Positive one-off effects due to payments for non-fulfillment and termination of long-term contracts thus affected profit and loss in the “Production Germany” segment. In the long run, this means that the group will lose revenue. (⇒ *Development of revenue and profit or loss • p. 083//*

Having lost its wafer customers, SOLARWORLD in turn is unable to fully meet its obligations resulting from long-term silicon contracts. Consequently, we are currently in negotiations with our silicon suppliers.

**LEGAL AND ECONOMIC FACTORS.** Over the fiscal year, prices for solar modules fell by more than 40 percent. Within 24 months, they have even declined by more than two-thirds. No module manufacturer has been able to compensate for this dramatic fall through cost optimization or technological improvements. Many providers therefore dropped out of the market; those remaining suffered high operating losses. Accordingly, around the world, the financial situation for solar companies worsened significantly in the fiscal year.

In the United States, in the context of a trade dispute, it was demonstrated that dumping by Chinese manufacturers and illegal subsidies in China had caused massive harm to the American solar industry. On November 7, 2012, the International Trade Commission (ITC) in the U.S. confirmed the imposition of countervailing duties on Chinese solar cells and modules incorporating Chinese solar cells. The duties range from 24 to more than 250 percent of the import price and will remain in force for five years.

In Europe, the EU ProSun industry initiative, of which SOLARWORLD is also a member, filed a complaint with the European Commission against Chinese dumping practices and illegal subsidies. The European Commission is currently investigating the case in two separate proceedings, which will be concluded by the end of 2013 at the latest. (ⓁⓂ *Timetable for EU ProSun trade complaint • p. 052//*

**SOLAR MARKET FLUCTUATING IN EUROPE.** In Europe, several countries have slashed subsidies for solar power, partly as a result of restrictive fiscal policy, and partly with the aim of reducing the high growth rates seen in the past. Changes at short notice to the legal situation caused unexpected leaps in demand, followed by severe slumps. These fluctuations prevented long-term planning. Overall, the European solar market declined sharply in 2012. According to estimates by Sarasin Bank, newly installed capacity, at 17 GW, was around 22 percent below the previous year’s level (2011: 22 GW).

**FIRST HALF-YEAR UNEXPECTEDLY STRONG IN GERMANY.** The surprise announcement and implementation at short notice of the cut in the German feed-in tariffs, effective April 1, 2012, triggered massive pull-forward effects in the normally weak winter quarter. In the first three months of the year, there was increased demand particularly for roof-mounted systems as customers wanted to make sure they still benefited from the old conditions. For large ground-mounted systems, due to their more complex planning requirements, there was a longer transition period lasting until June 30. Consequently, growth in the second quarter was mainly attributable to the construction of large-scale plants. In the second half-year, there was a slowdown in new installations in Germany. In view of the unusually strong demand in the first half-year, and additionally spurred on by dumped prices, newly installed capacity in Germany, at 7.6 GW, was 2 percent higher than in the previous year (2011: 7.5 GW). <sup>(17)</sup> *New solar power installations in Germany* • p. 052// Despite the volume growth, no manufacturer was able to benefit from this development, as is clearly shown by the severe losses sustained by the global solar industry.

The amendment to the German Renewable Energy Sources Act (EEG), which was passed at the end of June, provides for a final end to subsidies for solar power systems when cumulative solar power installations in Germany will have reached 52 GW – at the end of 2012 it stood at 32.3 GW. In accordance with the EEG amendment, the feed-in tariff was subject to a one-off reduction of between 20 and 30 percent, depending on the system size, retroactively from April 1, 2012. To prevent future pull-forward effects, the new law provides for a monthly reduction in the feed-in tariff. The intention is to avoid abrupt tariff reductions which could induce buyers to install systems before a particular date. Systems will receive subsidies up to 10 MW. However, a significant decline of demand has to be expected all in all for 2013 due to the decrease of feed-in tariffs. <sup>(18)</sup> *European solar markets below previous year's level* • p. 123//

**ITALIAN SOLAR MARKET SHRANK AS EXPECTED.** As announced the previous year, Italy reduced its subsidy rates during the year. Following a number of delays, the “Conto Energia V” came into force in August 2012. As expected, customers attempted to install their solar power systems under the more attractive conditions of “Conto Energia IV”. For this reason, demand was particularly strong in the second and third quarters. This development benefited SOLARWORLD as it partly made up for falling demand in the German market. Overall, however, according to the Italian electricity authority GSE, newly installed solar power capacity in Italy was significantly below the previous year's level, at 3.2 (2011: 9.4) GW.

**U.S. SOLAR MARKET CONTINUES GROWTH.** In the United States, the solar market continued to grow. According to the US Solar Energy Industry Association (SEIA) newly installed capacity in the U.S. grew in 2012 by 76 percent to 3.3 (2011: 1.9) GW. Despite this, manufacturers hardly benefited from this increase in fiscal year 2012 as for the most part the modules and solar power systems that were installed had already been purchased in 2011 by dealers, who held them in stock. Stocks were run down over the first half-year, with the result that demand for new products did not increase until the second half of the year. Chinese solar imports began to decline when preliminary duties were imposed by the Department of Commerce in spring 2012. After the final decision in the trade case in November

2012, Chinese solar imports fell to their lowest level in two years, according to U.S. Census Bureau. From October to November 2012, the volume of Chinese solar imports fell from US\$ 75 million to US\$ 50.5 million. This is less than one-fifth of the US\$ 278 million figure for imports in October 2011.

Nevertheless, the solar market picked up in the fourth quarter. Many U.S. customers wanted to install their solar power system before the end of the fiscal year so that they could deduct 30 percent of the cost against tax, as allowed by law. In addition to California, which is the largest sales region in the U.S., other states also showed strong growth in 2012. Of these, the most significant were New Jersey, Arizona, Nevada, Massachusetts and North Carolina. The commercial sector accounted for around 30 percent of the total market. This was particularly good for the SOLARWORLD group as our U.S. subsidiary is well positioned in this market segment. The second most important segment for our U.S. sales subsidiary – private households (residential sector) – accounted for around 15 percent of new installations. The remaining 55 percent of the market consisted of large-scale projects (utility sector).

**ADDITIONAL MARKETS ARE DEVELOPING.** On July 1, 2012, Japan launched an attractive incentive program for solar power. Since Japan has for many years been one of the world's largest photovoltaic markets, and therefore has a lot of experience with installing solar power systems, the enactment of the new law is causing the market there to develop very dynamically. According to current estimates, the market grew by 75 percent in 2012 to 2.5 (2011: 1.4) GW. In the Middle East, countries such as Saudi Arabia and Qatar have expressed interest in developing solar power, envisaging ambitious national development targets. The Latin American countries Brazil, Mexico and Chile have stepped up investment in solar energy, too. Furthermore, our prospects are good in Africa, especially in the commercial roof-mounted business.

## REPERCUSSIONS OF THE GENERAL CONDITIONS ON BUSINESS DEVELOPMENT

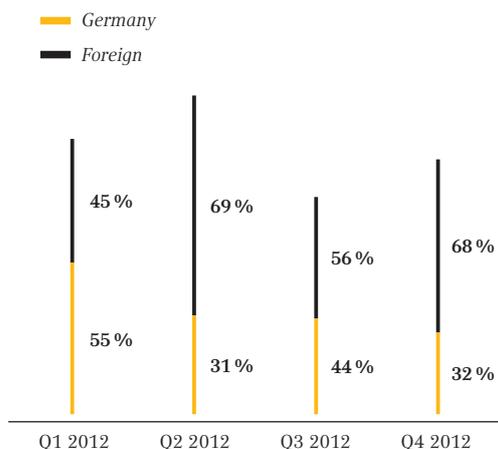
2012 was another crisis year for the solar industry: The entire sector was hit by overcapacity, price decline, operating losses and insolvencies. Despite a slight increase in demand, production capacities in the market could not be fully utilized. State subsidized Chinese companies sold their products at dumped prices and pushed many competitors out of business. Consequently, these were forced to sell off their inventories under closeout conditions, driving the price spiral further downward. The SOLARWORLD group also came under heavy pressure. Price erosion of more than 40 percent and almost total loss of the wafer business weighed on our revenue, which was 42 percent below the previous year's level. The operating result, at € -492 million, also declined sharply.

## TRADE

**VOLUME OF SHIPMENTS LOWER THAN EXPECTED.** Internationally, we sold modules and kits with a total volume of 567 (2011: 555) MW in 2012. Despite the difficult environment, therefore, we were able to keep shipments in the “Trade” segment stable at the previous year’s level. However, the two percent increase is far below our expectations. It was clearly a year of two halves: In the first half of 2012, our shipment volumes were almost within target. This was due principally to pull-forward effects in Germany and Italy. Following this, however, the development of the second half-year was significantly weaker than we had expected in 2011 and still in mid-2012. We had to progressively revise our shipment targets downward. Even the upward trend in U.S. business in the fourth quarter, and successes in large-scale projects and in the European export markets, could not make up for the decline in the rooftop segment in Germany, either in volumes or in revenue. The foreign shipment quota in 2012 was almost unchanged on the previous year, at 60 (2011: 61) percent.

⑳ REGIONAL DEVELOPMENT OF SHIPMENTS IN THE “TRADE” SEGMENT IN 2012 // IN MW

Source: SolarWorld, 2013:



**REVENUE AFFECTED BY PRICE DEVELOPMENT.** In the “Trade” segment, we generated annual revenue of € 581 million, a fall of 33 percent compared to 2011 (€ 863 million). This fall is essentially due to dramatic price decline in the global solar market, caused by illegal trade practices. ⊕ *Legal and economic factors* • p. 054// Customers were still prepared to pay a premium for SOLARWORLD brand quality products, but we had to adjust our prices to the market trend over the course of the year. Above all, however, our volume of shipments in the year as a whole was nowhere near enough to counteract the price decline and stabilize our revenue.

**GERMAN SALES MARKET UNSETTLED.** In the first quarter, the EEG amendment boosted the market, with the result that we increased our shipments by more than 35 percent in the first half of the year. The final adoption of the amendment at the end of June, however, did not in any way cause demand in the roof-mounted business to pick up again after the summer vacation, as had been expected. Surplus stock in the market resulted in an unexpectedly high price decline, especially in the fourth quarter. Thus, over the year, our shipments increased by a total of 5 percent. While this is slightly higher than overall market growth (2 percent), it is well below the growth rate of the first half-year.

In our view, this unsatisfactory development in the second half-year is explained by a range of factors: Firstly, nearly all market participants overestimated demand and increased their stocks far in excess of their requirements. This resulted in a “blocked” pipeline and further falls in prices. At the same time, the departure of one market participant from the quality segment put additional pressure on the price level as products were sold off at clearance prices. Secondly, we were unable to exploit our potential in the market for small systems. Due to the booming construction sector, our partners in the electrical and plumbing trades generally had high volumes of work to attend to outside of the photovoltaics field, and were not available for new business at short notice.

**SUCCESSSES ACHIEVED WITH LARGE-SCALE PLANTS THANKS TO SOLARPARC.** Despite significant subsidy cuts, the market for ground-mounted systems was strong once again in 2012 – driven by the expiration of deadlines set by law and not least by the availability of large quantities of dumped goods. ☺ *First half-year unexpectedly strong in Germany • p. 055*// SOLARWORLD was able to hold its ground in this difficult and price-sensitive field because we implement large-scale turnkey projects via our subsidiary SOLARPARC AG. SOLARPARC completed plants with a total volume of 59.4 MW, of which it had sold 38.1 MW to investors by the end of the fiscal year. The large-scale plant business supported our shipment volume, accounting for around 17 percent of our shipments in Germany. Plus it is strategically important for the further internationalization of our sales markets.

**DIFFICULT YEAR IN THE U.S. ENDED WITH GOOD FOURTH QUARTER.** The United States, after Germany, is SOLARWORLD’s second home market. In 2012, business on the American continent once again accounted for the second-biggest share of our shipments. However, this market was particularly affected by enormous price pressure. Until late summer, dealers in the U.S. were more than well stocked, which slowed our sales. But in contrast to Germany, the second half-year went increasingly well. The months of October to December proved to be the quarter with the highest volume of shipments. This was mainly due to the fact that stocks of goods had been sold by then, and that many American customers wanted to implement their projects by the year end for tax reasons. Because of the decline in the first three quarters, however, our overall annual shipments for 2012 were 16 percent down on 2011.

In the year under review, we were able to benefit from the good access to wholesalers that our U.S. sales team has systematically built up since 2011. Our wide customer network noticeably increased the ability to plan our shipments and their continuity. The majority of our shipment volumes were sold via wholesalers to commercial customers.

The project business was also very important to us. For example, we completed a project for the Los Angeles Department of Water and Power. We provided solar modules and system components for this 11.4 MW system. Also in California, in the second half-year we started construction of projects which have a total volume of 25.6 MW. SOLARWORLD is in charge of the complete development and construction of these projects in the Mojave Desert. They were sold to investors in the first quarter of 2013. We used the second generation of our SUNTRAC tracking system here. In 2013, we are aiming for a decisive improvement in our competitiveness in the American project business, with new high-performance modules. ➔ *Future sales markets 2013+ // "Trade" segment • p. 125//*

**UPTREND IN EUROPEAN MARKETS.** Overall, development in our European markets in 2012 was satisfactory for us. We achieved our planned volume growth. Our main export market in Europe – by a wide margin – was Italy. In the second quarter, we were able to compensate here for the drop in demand in Germany. Our business was satisfactory in a series of smaller markets, for example in Belgium and some south-east European countries such as Greece, Bulgaria and Romania. We also made a strong start in the rising British market. We opened an office in Salisbury in September 2012 to continue developing our specialist partner network in the United Kingdom.

**AUSTRALIA STRONGEST MARKET IN ASIA-PACIFIC REGION.** Despite China's dominance, the Asia-Pacific region remained an important market for SOLARWORLD in 2012 – Japan is particularly promising for us. Together with a partner, we established a sales presence in Tokyo in 2012 to facilitate our entry into the market.

In the year under review, our successes came mainly in the smaller markets. The largest volume share went to Australia, followed by Thailand. In contrast, the Indian market was more sluggish in the year under review than we had expected following our successes in the project business in 2011. In 2012, we were unable to ship any significant volumes into this market, but we did work on developing new customer contacts, for example by appearing at trade shows.

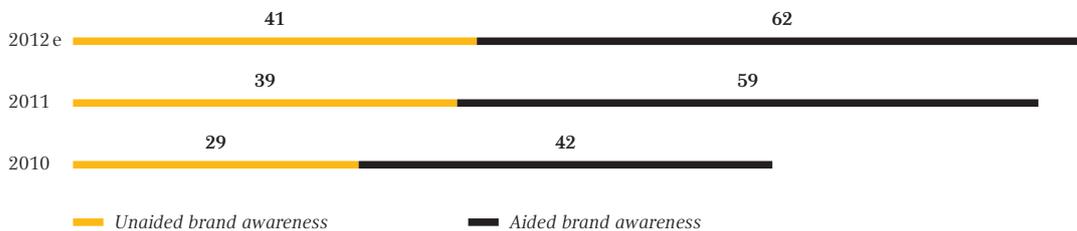
**LARGEST ROOF-MOUNTED SYSTEM IN AFRICA INSTALLED.** As in all parts of the world, competition in Africa was also affected by a fierce price war in 2012. In the rooftop market, SOLARWORLD was well positioned thanks to its system expertise and longstanding customer and supplier relationships. In Cape Town, we installed the largest roof-mounted system in Africa on top of the regional offices of Vodacom. This was a double record breaker as it is also the largest installation to date, anywhere in the world, of our SUN-DECK roof integration system. We also noted increasing interest in the issue of self-consumption, and in future we plan to make more of our potential to differentiate ourselves from competitors in this area.

## BRAND AND MARKETING

SOLARWORLD is the best known solar brand in Germany, and has succeeded in maintaining its position as a quality provider in an increasingly price-driven market environment. Strong brand awareness has proven to be an important advantage in the tough competitive conditions of recent years. Underpinned by quality and a differentiated value proposition, the brand once again proved itself in the upper price segment in 2012.

**21 BRAND AWARENESS IN GERMANY // IN PERCENT**

Source: AS&S Multitracking



**SYSTEMATIC CUSTOMER SURVEY PROCESS ROLLED OUT.** In 2012, we implemented a 360° process for brand observation, which in addition to our self-image analysis provided systematic customer feedback across the entire distribution chain. The regular, reliable input from this instrument enables us to further increase our competitive strength and react more quickly to market changes. Based on the results obtained in 2012, which shed light on the decision-making, purchasing and recommendation processes of market participants in the core market Germany, we have focused our resources in marketing and sales much more strongly on specific market and customer requirements, and implemented corresponding processes.

In 2012, we also conducted a qualitative survey of installers as well as private and commercial customers in the United States. This enabled us to review our brand positioning in the U.S. in the current market environment and initiate measures to enhance our brand profile.

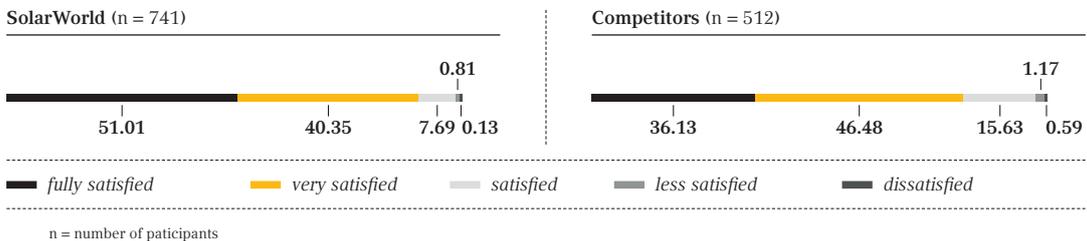
**POSITIONING AS QUALITY PROVIDER CONSISTENTLY DEVELOPED.** The results showed that SOLARWORLD's end customers are well informed in advance, as a result of our communication activities in past years, and that they specifically choose our products despite the wide diversity of suppliers. Our system expertise and the performance of our products are key added benefits. Moreover, the fact that our products originate in Germany and the U.S. is perceived by many customers as a quality feature.

**HIGH CUSTOMER SATISFACTION MAINTAINED.** In parallel to the 360° survey, this year we again conducted an annual survey of our trade customers to gauge their satisfaction with the quality and customer service they receive from SOLARWORLD. The response rate of 33 (2011: 31) percent remained constant compared to the previous year. The results show that even in difficult market conditions, the customers surveyed were equally satisfied with us as in previous years with regard to the quality and customer service they received. Once again, a majority of 93.6 (2011: 93.5) percent of customers said they were “satisfied” to “very satisfied” in terms of their overall satisfaction with SOLARWORLD. Since we have a particular focus on continuously reviewing and improving our services, we are very pleased to see that 96.5 (2011: 94.4) percent of customers rated their customer service experience as “very good” to “good”. This shows that our efforts to direct more attention to customer demands and continue improving our services accordingly are on the right track. When asked about the quality of our products, as in the previous year, many customers – 99.6 (2011: 99.4) percent – responded “very good” to “good”.

Yet a particular indicator of our customers’ satisfaction is their willingness to recommend our products and services to a friend, colleague or business partner (Net Promoter Score). A personal recommendation bears closely on that person’s own reputation, which means it must be well considered. Survey respondents were therefore asked about their willingness to recommend SOLARWORLD to business partners and acquaintances. On a scale of 0 to 10, their average response was 9.0 (2011: 8.9). Confidence in the performance of our products and services is therefore beyond doubt for the majority of those taking part in the survey. In addition, internal market studies show that our end customers also have a high willingness to recommend. This indicator can be seen as a key parameter for the brand’s success in acquiring new customers.

**22 WILLINGNESS TO RECOMMEND // IN PERCENT**

Source: SolarWorld benchmark study 2012, ServiceBarometer AG 2012



**SOLARWORLD AWARDED “GREEN BRANDS GERMANY” SEAL.** Our brand’s premium philosophy is reflected in a sustainable brand identity. Our commitment to sustainability goes beyond our core business to include aid projects under the SOLAR2WORLD program, and the SOLARWORLD EINSTEIN Award. (→ [Solar-2World](#) • p. 075 // [SOLARWORLD Einstein Award](#) • p. 075 // Our corporate culture is strongly shaped by the “green idea”, which we embrace both within the company and in the world at large. For us, living the “green idea” includes all aspects of sustainability, i. e. economic, ecological and social sustainability. In 2012, SOLARWORLD was the first TecDAX company to be awarded the “Green Brands Germany” seal for its sustainable management system and environmentally sound products. It was awarded following a three-stage certification process: first of all, the market research company Ipsos conducted a representative public opinion survey in Germany. Respondents named SOLARWORLD as a brand that has a strong commitment to a sustainable future. In the subsequent validation phase, we disclosed extensive information about environmental aspects concerning both the company and our products. This included areas such as environmental management systems and corporate social responsibility, the extraction of raw materials, production, and sales of our products. As the Green Brands organization confirmed, we achieved outstanding results in many areas.

**EMPHASIS ON EXPANSION OF INTERNATIONAL SPECIALIST PARTNER NETWORKS.** There was a particular emphasis in our international marketing on supporting our global distribution structures. To this end, we significantly expanded our international customer base and set up international specialist partner programs and online shops in five European core markets. By supporting our specialist partners with advanced training courses and materials for end customer acquisition, we strengthen our ties with SOLARWORLD partner businesses. In the United States, our Authorized Installer Program put us in close contact with our specialist partners and meant we could help them target end customers. We also expanded our network in the U.S. to cover several more states.

**CUSTOMER CONTACT AT INTERNATIONAL TRADE FAIRS.** In 2012, we made it a priority to be present at the most important international trade fairs, with the aim of addressing new markets and successfully placing our products in existing markets. For the European trade shows, we concentrated on established markets like Germany and Italy as well as markets with growth potential such as the UK and Poland. In our U.S. core market, in addition to the two main national trade fairs, we were present at smaller targeted events to develop contacts with particular customer groups, such as schools, farmers and government organizations. Following our internationalization strategy, we were also represented at trade fairs in India, Australia, and for the first time Japan and Abu Dhabi. In addition to our trade fair appearances, in our UK and Italy target markets we used roadshows to reach wholesalers and create initial contacts with additional distributors so that we could continue to develop our distribution network in these markets.

**MARKETING PARTNERSHIPS EXPANDED.** We aim to inspire people to choose the solar lifestyle. Via products such as the SUNCHARGER – a solar charger for mobile devices – or the SUNCARPORT, we want to introduce consumers to the SOLARWORLD brand and advertise our core offerings. Initially, we sold the

SUNCHARGER – which won the red dot award for product design – exclusively through the Lufthansa WorldShop. Since December 2012, the SUNCHARGER has also been available through a dedicated online shop. We took the SUNCARPORT on a round-Germany roadshow with auto manufacturer Toyota. In this way, we advertised the possibility of generating your own power for an electric or hybrid vehicle on your own driveway. Solar mobility becomes a practical option in our everyday lives.

**SOLARWORLD GT ON SOLAR-POWERED JOURNEY AROUND THE WORLD.** Solar mobility was also the focus of another cooperative venture with our longstanding partner, the Bochum University of Applied Sciences. With the aim of using the SOLARWORLD brand to raise public awareness of the need for a clean energy supply worldwide, at the end of 2011 we sent our solar vehicle – the SOLARWORLD GT – on a round-the-world journey. It completed the trip in a little over a year, setting a new world record. At stops along the way, we used the SOLARWORLD GT for various media activities and customer events.

## PRODUCTION

**PRODUCTION ADJUSTED TO FALLING DEMAND IN SECOND HALF-YEAR.** In the first half of 2012, we nearly reached our planned shipment volumes. Accordingly, we used our production facilities to the expected capacity in the first six months. © Annual Group Report 2011, Future development of “production germany” and “production U.S.” segments • p. 104 // However, in the second half-year, we experienced much weaker business than had been anticipated, which resulted in significant under-utilization of our capacities. At both production sites, Freiberg and Hillsboro, we introduced restructuring measures such as staff layoffs, budget cuts and structural changes. ☹ Headcount adjusted to market situation • p. 078 // Thanks to the modular design of our plants, however, we were able to retain the nominal capacities. This enables us to utilize our capacities flexibly in future, according to demand. ☺ Flexible use of production capacities • p. 127 //

## ②③ GROUPWIDE NOMINAL CAPACITIES AS AT END 2012 // IN MW

	 Wafer	 Cell	 Module
Germany (Freiberg)	750	300	500
U.S. (Hillsboro)	250	500	350
Group	1,000	800	850

**STRUCTURAL CHANGES IMPLEMENTED AT START OF VALUE CHAIN.** At the Freiberg location, we brought our raw material activities and wafer production closer together by merging SUNICON GMBH (formerly: SUNICON AG) with DEUTSCHE SOLAR GMBH. As a result, we achieved synergies in production and administration. Here too, changing conditions explain why restructuring was necessary: When SUNICON GMBH was set up in 2007, it was going to offer recycling of silicon and old modules as a service for third parties. As a result of the wave of consolidation in the solar industry, very few wafer and module manufacturers now produce anything in Europe, which means that the planned business model is no longer viable. The alternative methods for silicon production, which SUNICON GMBH developed, are now less of a priority for the SOLARWORLD group than in times of raw material shortages and corresponding high silicon prices. Consequently, the company was reintegrated into DEUTSCHE SOLAR GMBH. ↻ *Global solar market experiencing subdued growth • p. 053*

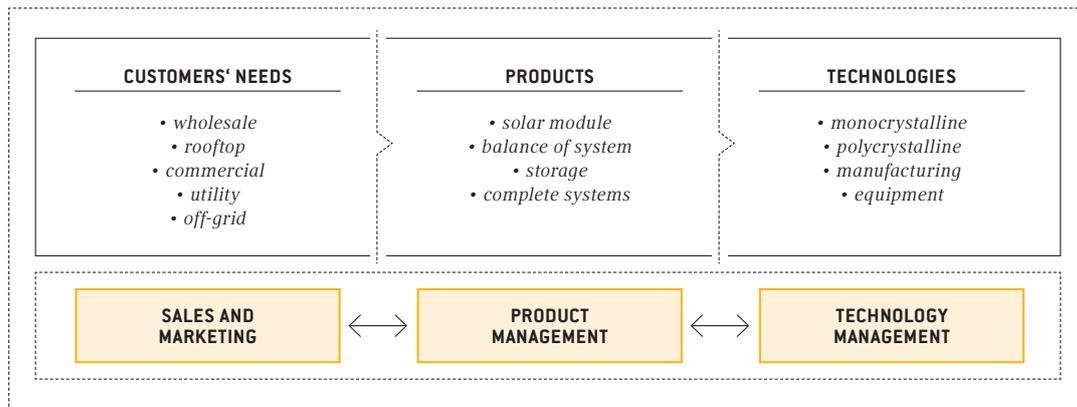
**PRODUCTION GEARED TO INNOVATION.** Production employees played a significant part in the development and implementation of new processes in 2012. In close cooperation with sales and research and development, we were able to implement fundamental innovations in production in 2012. For example, in the second half-year, we began switching the production of monocrystalline solar cells over to passivated emitter and rear contacts (PERC) technology and the use of selective emitters. Furthermore, we tested other innovations on a pilot scale in preparation for implementation in 2013.

## INNOVATION REPORT

**INNOVATION PROCESS FOLLOWS SCIENCE2CUSTOMER PRINCIPLE.** New technologies are a prerequisite for SOLARWORLD's competitiveness and business success. Faced with stiff competition from companies in low-wage countries, an innovative edge and the associated cost advantages in production are essential for the group's survival. Thus, we have significantly increased R&D activities in 2012. We raised our expenses for research and development by 80.5 percent. Research intensity tripled to 4.8 (2011: 1.6) percent. <sup>(30)</sup> *Research ratio and research intensity • p. 070//*

Our innovation approach focuses on the customers: Based on their observations, product management and marketing forecast scenarios for the expected development of the market and customer needs. A product roadmap is derived from this. Finally, SOLARWORLD INNOVATIONS GMBH makes these products possible by developing and providing the technologies that fulfill the product requirements. To do this, they draw up a technology roadmap.

### <sup>(24)</sup> SCIENCE2CUSTOMER: INNOVATION PROCESS AT SOLARWORLD



**GENERATE COMPETITIVE ADVANTAGE WITH NEW TECHNOLOGIES.** Based on market development in 2012, we made it our priority to impress our customers with substantially higher performance and quality, and significantly improve cost efficiency. To achieve this, we developed new processes along the entire production chain, from crystallization, to wafer and cell production, to module production. In combination, considering the decisive criteria of performance, quality and cost, they can give us a clear competitive edge in the years 2013+.

**MODULE OUTPUT INCREASED TO 270 WATT-PEAK.** We have succeeded in raising the output of our monocrystalline modules to 270 Wp, an increase of 6.3 percent compared to 2011. We achieved this by implementing two new technologies simultaneously in the production of monocrystalline solar cells. Rear passivation improves the cell's conductivity. Selective doping under the contact fingers on the front of the cell – the selective emitter – means that the remaining surface is more weakly doped and can be used more effectively to generate electricity. In the fiscal year, we deferred the conversion of some parts of cell production to narrower conductor strips, in favor of the processes described above. This will now be introduced in 2013 both in our monocrystalline and polycrystalline cells. This process, which we developed in-house, will enable SOLARWORLD to offer its customers a polycrystalline module with an output exceeding 250 Wp. © Consolidated Interim Report H1 2012/New products in the first half 2012 and market launch in the second half 2012 • p. 016//

**CRYSTALLIZATION PROCESS SIGNIFICANTLY IMPROVED.** As part of its production strategy, SOLARWORLD is increasingly using monocrystalline technology to manufacture high-performance modules. The production costs and quality of monocrystalline ingots have been significantly improved by a new crystallization process. In future, we will also offer a module with full-square monocrystalline wafers. The mono product differs in appearance from the poly product due to its homogeneous crystal structure, which leads many customers to prefer this type for aesthetic reasons.

**LOW-WEIGHT GLASS-GLASS MODULES DEVELOPED.** In 2012, we developed modules that instead of film have a glass back, like the front. Compared to conventional glass-film modules, these glass-glass modules show less degradation and are more durable, which results in higher yields. We will trade these modules under the name SOLARMODULE PROTECT and be one of the first manufacturers in Germany to use glass just 2 mm thick on both sides of the module. This means that the glass in our modules will have only around half the thickness of competing glass-glass products. The advantage of thin glass is that it does not increase the module weight compared to our same-sized glass-film modules, while also resulting in higher load capacity and greater resistance to moisture. Hence, these modules are also easy to install. Competing products have the drawback of being significantly heavier. In the United States, we will also introduce a glass-glass version that is frameless, and so is particularly suitable for large-scale plants. Our glass-glass technology can also be combined with our other power-enhancing processes.

25 IMPORTANT NEW DEVELOPMENTS IN MODULE TECHNOLOGY

Product	270 Wp+ MODULE (MONOCRYSTALLINE)	250 Wp+ MODULE (POLYCRYSTALLINE)	GLASS-GLASS MODULE
Market launch	Q1 2013	Q1 2013	Q3 2013
Added value	Higher output. Increase over Q1 2012: 6.3 % (mono); 3.7 % (poly)		<ul style="list-style-type: none"> <li>• Guarantee increased from 25 to 30 years</li> <li>• Annual degradation reduced from 0.7 % to 0.35 %</li> <li>• Same weight as glass-film modules</li> </ul>
Future potential	Strengthening position as a module provider in the top performance segment		Better market positioning, particularly in the large-scale projects segment

**ENABLE HIGHER SELF-CONSUMPTION.** A long-term development focus results from the fact that solar power can and should be used cost-effectively irrespective of subsidy incentives. In Germany, solar power systems are transforming from a way of generating income into needs-oriented building engineering projects. ➔ *New markets are opening up* • p. 119// Increased self-consumption and intelligent combination with other energy sources are key themes for “post-EEG” solutions. The product management and research departments at SOLARWORLD are working together closely on several projects to improve existing solutions for intelligent load management and storage in 2013. Back in 2011, we joined forces with external partners in the German EEBus e. V. initiative, which set out to develop uniform standards and mutually compatible solutions for smart homes and smart grids.

## 26 NEW DEVELOPMENTS IN SYSTEMS AND ACCESSORIES

Product	SUNPAC 2.0	SUNFIX AERO DUO
Market launch	Q3 2013	Q2 2012
Added value	Battery storage system with 10.9 kWh total storage (5.5 kWh usable energy); first to integrate charging and discharging functions and a data logger in a three-phase inverter; can be combined with a lead-gel battery and in future with a lithium-ion battery as well → system can be operated without a battery and retrofitted. Fewer components → significantly less work to install and higher efficiency	Low-ballast system and frame technology for flat roofs with low load reserves; new option that enables solar modules to be arranged on roofs in pairs at a tilt → up to 60 percent more output on same area
Future potential	Strengthen pioneering position in self-consumption and smart homes thanks to a compact system that is ready for potential developments in storage technology and makes the investment future-proof	Expand market to flat roofs with low load reserves; great potential in international markets

For yields from new products, see 06 *Customers and products* • p. 032//

**FOCUS ON OWN DEVELOPMENTS.** In-house research and development is the basis for the independent value proposition of the SOLARWORLD brand. Thus, in the period under review, our essential expertise was developed within our company. It was not bought in. Our aim of differentiating SOLARWORLD from the competition by means of proprietary developments is reflected in a continually growing number of patents.

## 27 DEVELOPMENT OF INVENTIONS AND IP RIGHTS

	2008	2009	2010	2011	2012
Registered inventions	18	28	51	58	71
IP ratio*	23 %	31 %	56 %	51 %	60 %
IP rights or applications owned	220	209	203	329	339
IP rights families owned	103	87	107	152	173**

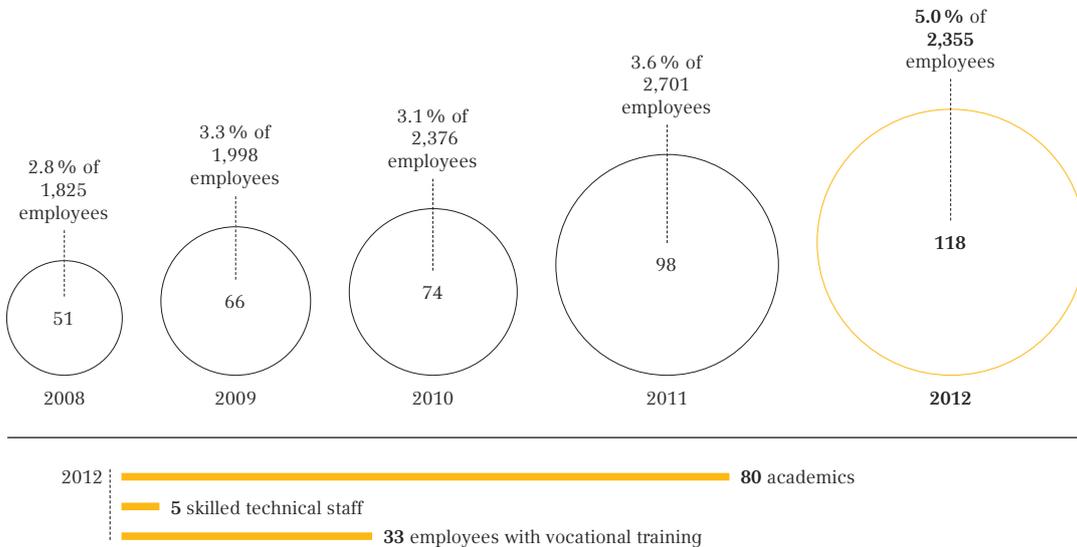
\* Ratio of the number of registered inventions in SOLARWORLD INNOVATIONS GMBH to the number of employees

\*\* Of which 70 with at least one patent granted

**HEADCOUNT INCREASED IN RESEARCH AND DEVELOPMENT.** SOLARWORLD relies on the expertise and inventiveness of its employees. For this reason, and in contrast to nearly all other areas of the group, we again increased staffing levels at our research subsidiary SOLARWORLD INNOVATIONS GMBH in 2012. In particular, SOLARWORLD INNOVATIONS GMBH integrated employees from the crystallization and wafering departments at DEUTSCHE SOLAR GMBH to generate even more synergies in the development of new crystallization processes. Within SOLARWORLD INNOVATIONS GMBH, we have also formed a “systems technology” group so that we can provide better development-side support to product management in sales.

**28 HEADCOUNT DEVELOPMENT SOLARWORLD INNOVATIONS GMBH\***

as at December 31, 2012



\* Excluding temporary workers, adjusted figures in comparison to last year's report without number of students

**CLOSE LINKS WITH PARTNERS.** Despite the high in-house proportion, innovations in the SOLARWORLD group are also developed in collaboration with external partners. At our Freiberg production site, our subsidiary SOLARWORLD INNOVATIONS GMBH is the hub of a network of machine and system manufacturers, producers of consumables such as glass, and partners in the research and scientific communities. Our longstanding partnership with TU Bergakademie Freiberg (TUBAF) and the Freiberg-based Fraunhofer technology center for semiconductor materials (Fraunhofer THM) creates a key location advantage – not least when it comes to recruiting science graduates for SOLARWORLD.

Worldwide, SOLARWORLD INNOVATIONS GMBH worked together with about 25 scientific institutes, universities and technical colleges in 2012 in the areas of crystallization, wafering, solar cells, modules and systems.

**INVOLVED IN PUBLICLY FUNDED PROJECTS.** In 2012, government-funded projects were an important bedrock for SOLARWORLD in the achievement of technological advances. In the year under review, we took part in eight publicly funded projects. The largest of these is funded under the Photovoltaic Innovation Alliance research program run by the German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety and the German Federal Ministry of Education and Research. The project allowed necessary foundations to be put in place for enhancing the output and quality of solar modules. In the United States, an extensive funding project was approved by the Department of Energy that specifically focuses on further performance enhancement and cost reduction for monocrystalline modules.

#### ②9 DEVELOPMENT OF R&D EXPENSES

	2008	2009	2010	2011	2012
Total R&D expenses (in €m)*	13.0	12.0	19.2	27.2	49.1
Sponsored portion (in %)*	18.5	15.0	11.5	14.5	10.7

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

#### ③0 RESEARCH RATIO AND RESEARCH INTENSITY // IN PERCENT

	2008	2009	2010	2011	2012
Research ratio	1.4	1.2	1.5	2.6	8.2
Research intensity	1.9	1.2	1.6	1.6	4.8

[Research ratio = R&D expenses/revenue x 100]; disclosure excluding the R&D activities of our joint venture

[Research intensity = R&D expenses/total expenses x 100]; disclosure excluding the R&D activities of our joint ventures

## ENVIRONMENTAL AND SOCIAL COMMITMENT

SOLARWORLD stands for sustainability. Our activities are based on being green. Despite the difficult state of business, we continued our commitment to the environment and society in 2012; doing so is part of our identity and clearly sets SOLARWORLD apart from its competitors in solar manufacturing for all stakeholders.

SOLARWORLD's activities center on production, which is why we must address three central topics: energy, water, and waste. We have set out to make cuts in these areas and intend to achieve these specific goals by 2020 by continually improving the efficiency of our processes. We measure our progress compared to the production unit watt peak, in other words, how much energy, water, and waste we can save per watt peak. Furthermore, we set an absolute emission target for new cars in our vehicle fleet.

### 31 ENVIRONMENTAL TARGETS 2020

	Unit	Target 2020	Actual 2012
<b>Energy &amp; climate protection</b>			
Groupwide energy consumption	kWh/Wp	-25 %	<b>0.63</b>
Cumulated energy demand (life cycle)	MJ <sub>eq</sub> /Wp	-15 %	<b>13.5</b>
Groupwide CO <sub>2</sub> emissions	kg CO <sub>2eq</sub> /Wp	-15 %	<b>0.25</b>
Emission intensity (life cycle)	kg CO <sub>2eq</sub> /Wp	-15 %	<b>0.8</b>
Average CO <sub>2</sub> emissions from passenger cars in the SOLARWORLD vehicle fleet	g CO <sub>2eq</sub> /km	95 (new passenger cars)	152 (all passenger cars)
<b>Water</b>			
Specific volume of water consumption	m <sup>3</sup> /MWp	-10 %	<b>1,738</b>
Specific volume of waste water	m <sup>3</sup> /MWp	-10 %	<b>1,384</b>
<b>Waste</b>			
Specific volume of waste	t/MWp	-10 %	<b>26.5</b>

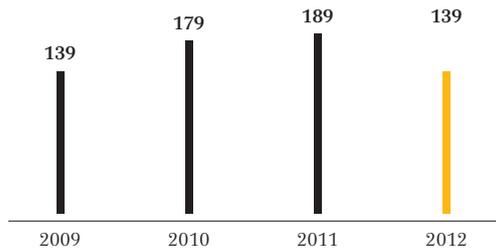
## ENERGY AND CLIMATE PROTECTION

Solar power generation replaces other sources in the energy mix, thus helping reduce harmful greenhouse gas emissions and preserve fossil resources. Nevertheless, the process for manufacturing our products also uses energy. But our products generate far more energy over their life cycle than is needed to manufacture them. Likewise, far more greenhouse gas emissions are avoided than are created in the entire manufacturing process.

072

**CO<sub>2</sub> EMISSIONS.** Since the Carbon Disclosure Project Germany was founded in 2005, we have been involved in capturing greenhouse gas emissions. Our group-wide greenhouse gas emissions reduced in 2012 to 139 (2011: 189) thousand tCO<sub>2eq</sub>.

③② GROUP-WIDE EMISSIONS // IN THOUSAND TCO<sub>2eq</sub>

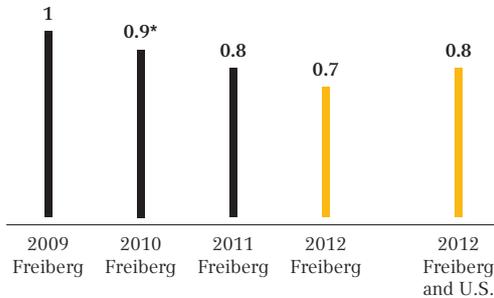


Goal 2020: –15 %, in reference to the groupwide emissions in kg CO<sub>2eq</sub>/Wp

We use the life cycle analysis to calculate the emission intensity of our products (greenhouse gas emissions per production unit, CO<sub>2eq</sub>/Wp). We include emissions from the entire production process, including preliminary stages and input factors in the analysis. Our 2012 emission intensity in Freiberg and the U.S. totaled 0.8 (2011: 0.8, only production data from Freiberg) kg CO<sub>2eq</sub>/Wp. In Freiberg, we achieved an improvement of 8 percent year on year. This year, data from the U.S. is for the first time available.

SOLARWORLD does not use or emit any nitrogen trifluoride (NF<sub>3</sub>).

33 EMISSION INTENSITY // IN KG CO<sub>2eq</sub>/WP



Goal 2020: -15 %, in reference to emission intensity in kg CO<sub>2eq</sub>/Wp

\* average value of 2009 and 2011

**PAYBACK TIMES.** The energy payback time is the amount of time it takes the solar power plant to produce as much energy as was used to manufacture it. Accordingly, the CO<sub>2</sub> payback time refers to the time it takes to compensate for the greenhouse gases that were emitted during manufacturing. Our calculations are cradle-to-gate calculations.

SOLARWORLD's performance progress can be determined from the energy and CO<sub>2</sub> payback times. While it takes a little more than a year to compensate for the energy consumption of the entire production process of a system in Bonn, Germany (power yield: 940 kWh/kWp), it only takes seven months in San Francisco, U.S. (power yield: 1,670 kWh/kWp). By way of comparison, in 2008 the energy payback time was still 3.5 years according to a study by ESU-services.

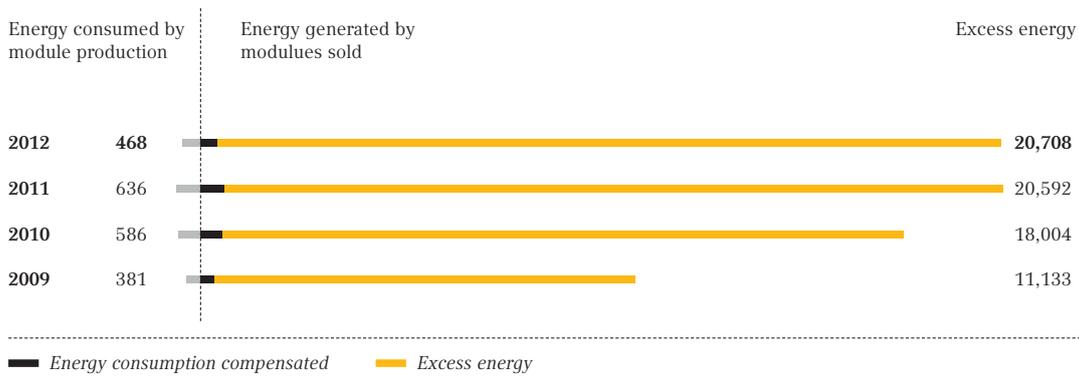
CO<sub>2</sub> emissions are compensated for in a little more than one year in San Francisco, while it takes almost seven years in Grenoble, France (power yield: 1,110 kWh/kWp) due to the high percentage of nuclear power in the French energy mix. These calculations come from our life cycle analysis for our solar modules from Freiberg, Germany, installed in a roof with a southerly orientation and an optimum inclination at an average module lifespan of 30 years.

An overview of many sites around the world and additional information on the calculations is available on our website: @ [www.solarworld.de/sustainability//](http://www.solarworld.de/sustainability//)

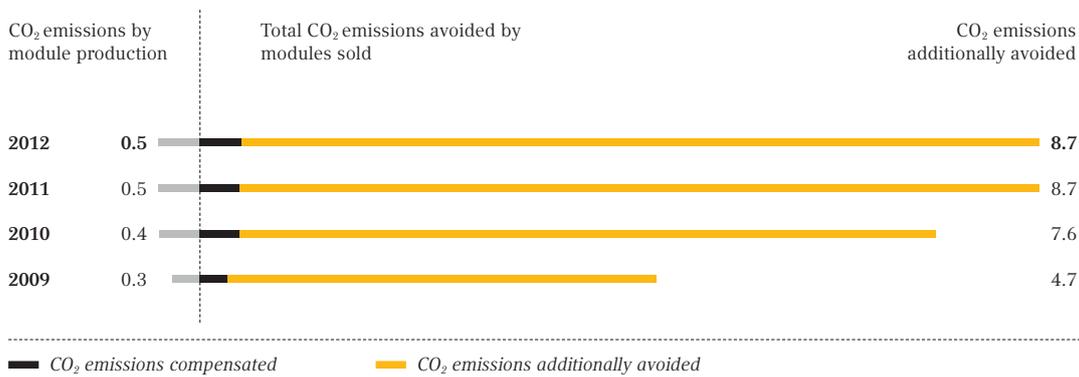
**POSITIVE ENERGY AND CO<sub>2</sub> BALANCE.** Thanks to the volume of solar power modules sold in 2012, an energy surplus of 11,133 GWh can be achieved during a lifetime of 30 years. Thereby, some 8.7 (2011: 8.7, only production data from Freiberg) million tCO<sub>2eq</sub> can be saved. The costs for environmental damage avoided as a result total around € 607 (2011: € 608, only production data from Freiberg) million. The

CO<sub>2</sub> emissions avoided exceed the CO<sub>2</sub> emissions caused along the entire production chain by a factor of 19 (2011: factor of 19, only production data from Freiberg). In that respect, it is appropriate to stress that the values from the production in Freiberg improved by 8 percent year on year. Since we have no exact information about how and where our modules are installed, our calculations are based on a standardized installation (1,275 kWh/m<sup>2</sup>).

34 ENERGY BALANCE // IN GWH



35 CARBON FOOTPRINT // IN MIO. kCO<sub>2eq</sub>



You can find more information about the respective model assumptions and the calculations under [Sustainability in detail • p. S60 et seq.](#)

## SOLAR2WORLD

Driven by our vision of fair and sustainable global development, it has been our goal to give people everywhere access to electricity through decentralized solar power solutions, since 2007 under the auspices of the Solar2World program. Through this program we have carried out projects around the world with a total scope of 519 kWp to date. In 2012, we successfully installed around 78 (2011: 39) kWp working together with our project partners and through the volunteer efforts of our employees.

## SOLARWORLD EINSTEIN AWARD

We recognize people who have rendered outstanding service to the global use of solar energy through our annual SOLARWORLD Einstein Award, which have been held since 2005. The 2012 award was given to Molly and George Greene from the American aid organization Water Missions International (WMI) and to Günther Cramer, founder of the inverter manufacturer SMA. The aid organization WMI from Charleston, South Carolina employs 150 people and has carried out over 600 water projects in 49 countries to date. The idea came to Molly and her husband George when they traveled to Honduras in 1998 to help the victims of Hurricane Mitch. WMI has used solar power almost exclusively to operate their water pumps for years. Günther Cramer and three others founded SMA 30 years ago in Kassel, Germany. Today the company has a worldwide presence and employs over 5,500 people.

We have also presented the SOLARWORLD Einstein Junior Award to a young scientist each year since 2006. The 2012 award went to physicist Dr. Bianca Lim from the Institute for Solar Energy Research in Hameln, Germany. In her doctoral thesis, she investigated boron-oxygen compounds that cause a reduction in the efficiency of solar cells. She was able to describe the phenomenon and develop a practical process that reduces the effect of these compounds.

More information on the above-mentioned topics is available in  [\*Sustainability in detail\*](#).

## PROCUREMENT

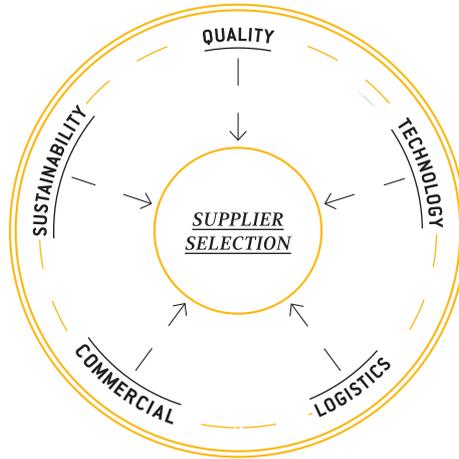
**CUT COSTS, BE FASTER AND MORE FLEXIBLE.** More than 70 percent of our costs are attributable to materials. Procurement management is therefore strategically important to us. In 2012, two tasks stood at the very top of our agenda. Firstly, we wanted to achieve a rapid reduction in our material and service costs. Secondly, we had to restructure the department strategically and organizationally so that we could secure better purchasing conditions on a long-term basis. At the same time, in cooperation with our suppliers, we want to increase our flexibility so that we can adjust commodity flows more quickly than before to changes in the market situation. High flexibility in material usage has now become the decisive success factor, whereas until two years ago, long-term security of supplies was the priority. In the still-young solar industry, frequent supply bottlenecks affected preliminary products such as silicon and components such as inverters. Now, there are global overcapacities of these products as well, with the result that we were able to obtain sufficient supplies of materials throughout 2012.

**SAVINGS TOTALING MILLIONS.** In the year under review, we achieved savings worth millions in material and service costs by acting as a global entity in the procurement markets, thus enabling us to successfully negotiate conditions with our suppliers. In 2012, SOLARWORLD reduced its bill of materials by more than 20 percent. (→ [Development of material income statement line items • p. 085//](#))

**GREATER FLEXIBILITY IN MATERIAL AVAILABILITY.** In 2012, we concluded new agreements with our suppliers in a number of areas to enable future material usage to be more in line with our requirements. For example, for some materials, instead of absolute volumes we have now negotiated a certain share of our future requirements. In this way, we create supply chains in which the risks are shared with our suppliers. In Freiberg, we started using consignment warehouses for the first time in 2012. As a result, we reduce our own material stocks and default risks. (54) [Procurement risks • p. 108//](#)

**SUPPLIERS CAREFULLY SELECTED.** SOLARWORLD attaches great importance to integrating its suppliers into the business as long-term partners. Even in times of enormous cost pressure, choosing a supplier is not just a question of finding the lowest price, since there is a range of criteria – such as quality and sustainability – which create added value for customers and pay dividends for the SOLARWORLD brand.

## 36 SUPPLIER SELECTION CRITERIA



**SUPPLIER DAY LAUNCHED.** On August 28, 2012, we held our first ever international supplier symposium at our Freiberg site. More than 60 strategic partner companies attended, accounting for over half of SOLARWORLD AG's total purchasing volume. All members of the SOLARWORLD Management Board explained our need to achieve further reductions in material and service costs. The overwhelming majority of suppliers then declared themselves willing to support us in the joint effort to make additional cost savings. We now want to establish the "Supplier Day" as a regular forum for direct communication between the group and its suppliers.

## EMPLOYEES

In 2012, SOLARWORLD's HR strategy was aimed at adjusting human resource allocation to changed market conditions, at the same time as supporting the group's increasingly global orientation. To this end, in 2012 we developed key strategic areas into coordinated global organizational structures. Measures that we developed during the process of change are aimed at actively involving our employees in the changes happening in the company, in accordance with the corporate strategy. In the ideas, flexibility and long experience of many of our employees, there is great internal potential that we want to utilize to shape successful change.

**HEADCOUNT ADJUSTED TO MARKET SITUATION.** Due to global excess capacities, we reduced our production volumes in 2012 and adjusted our workforce to our changed requirements. At our two production sites in Freiberg and Hillsboro, this meant a fall in the number of employees by around 23 percent in each case. First of all, we cut back on the employment of temporary workers, and since the end of 2012 we have almost completely relied on permanent employees. Groupwide, we reduced the number of permanent employees by 13 percent. For the most part, we were able to make use of natural attrition, allow fixed-term employment contracts to expire, and negotiate new conditions with existing employees. Despite this, we were unable to avoid redundancies.

To enable a flexible response to future shifts in demand, we will use temp workers again when production needs increase. Here, as in previous years, we intend to continue working with established temporary staffing companies.

With regard to additional cost savings, we reviewed staff deployment in all areas of the group and introduced necessary HR measures at the end of the fiscal year.

In contrast, we increased employee numbers in 2012 in areas of strategic importance to the group such as procurement, IT, sales and export. Even during the industry-wide crisis, SOLARWORLD was able to fill key positions by attracting highly qualified personnel with many years of experience in other industries.

Including temporary workers, the number of employees at SOLARWORLD fell to a total of 2,558 (Dec. 31, 2011: 3,233) people. Groupwide, the number of permanent employees fell by 13 percent to 2,355.

### 37 HEADCOUNT DEVELOPMENT // NUMBER OF PEOPLE

	Employees as at Dec. 31, 2012	Employees as at Dec. 31, 2011	+/- absolute
Germany	1,559*	1,756**	-197
United States	769	919	-150
Rest of the world	27	27	0
<b>Group</b>	<b>2,355</b>	<b>2,702</b>	<b>-347</b>

\* incl. 73 trainees

\*\* incl. 82 trainees

The attrition rate in the group increased to 16.4 (2011: 15.5) percent. This was mainly due to the HR measures described above which were implemented in 2012.

**STRATEGIC AREAS DEVELOPED INTO GLOBAL ORGANIZATIONAL UNITS.** Human resources serves as a partner in a strategic alliance with group management and the departments. Fundamental change and the current crisis in the solar industry have resulted in the need for organizational restructuring at SOLARWORLD. Since employees are asked to play their part in shaping this process of change, HR will be on hand to provide close support.

An initial measure as part of our corporate strategy concerns the realignment of our internal organizational structures in the group. Back in 2011, we scrutinized structures and processes throughout the group, and implemented corresponding measures in 2012. These have included developing our procurement, IT and export departments into global organizational units, thus adapting them to current market requirements and making additional cost savings. Two other core areas – sales in Germany and product management – were then restructured, under new management, to form organizational units with a wider reach. As a result, the group’s global orientation is now better reflected in the organizational structure of the departments.

**OUR CORPORATE CULTURE PROVIDES A SUSTAINABLE FOUNDATION.** SOLARWORLD has a strong corporate culture that makes us an attractive employer both internally and externally. It is characterized by a lively exchange of ideas between people of all ages represented in the group. 55.1 percent of employees are under 40 years, which means we have a relatively young workforce. Our corporate culture also thrives on living the “green idea”. This is the decisive factor that drives many employees’ dedication to achieving the company’s goals. Internal surveys confirmed this again in 2012. The importance of the company’s green ethos also gained external recognition: In 2012, SOLARWORLD was awarded the “Green Brands Germany” seal for the sustainable approach that its employees follow and practice both inside the company and externally. (→ [SolarWorld awarded “Green Brands Germany” seal](#) • p. 062//

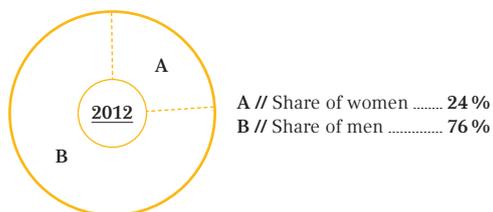
**COMPETENCE MODEL STRATEGICALLY IMPLEMENTED.** Our corporate culture forms the basis for our human resources strategy. Based on our self-image and our guiding principles, in 2011 we developed a global competence model. In addition, we surveyed employees at all levels throughout the group. This model is a key instrument for our HR activities. In 2012, based on the competence model, we developed and implemented a new recruitment system. Applicants are assessed using suitable diagnostic tools such as structured interviews, simulations and an assessment center. The results form the basis for our recruitment decision. In 2012, all necessary new appointments in strategic key areas followed this process. As a result, we ensure, now and in the future, that new positions are filled by employees who act in accordance with our corporate culture and group strategy.

**PROMOTION OF TALENT CONTINUED.** We aim to retain particularly highly qualified employees in the company and familiarize them with the new global and local processes and structures. In the long term, we want to cover our specialist and executive recruitment needs by appointing highly able and motivated employees from within our own ranks. Hence, in 2012, one focus of our HR activities was on the continuation of our global talent management program, which offers special support to high-potential employees and training for junior executive positions. Participants attended targeted coaching sessions on global leadership skills to bolster their abilities in this area. As the next stage, individual development plans were produced.

**EDUCATION PROMOTED.** In 2012, we invested in training programs, courses and projects especially intended to promote cross-cultural exchange and further our aim of a global strategic alignment for the group. We also planned and launched an initial implementation phase of specific professional development measures. In this way, we want to enable employees at all levels to play an active part in the group's new strategic alignment, by identifying necessary changes in their working environment themselves and jointly developing suitable measures for implementation. Costs for training and professional development totaled € 0.7 (2011: € 1.1) million.

**IMPROVING EQUAL OPPORTUNITIES.** At 23.5 (2011: 22.5) percent, the proportion of women in our total workforce slightly increased. In management positions, the proportion was 17.0 (2011: 15.6) percent. Our aim is to achieve approximately the same proportion of women at management level as in the group as a whole. We therefore create incentives equally for women and men in our workforce to move up to management positions. Finally, we ensure attractive and flexible working conditions by offering part-time models and home-working where possible, as well as giving employees control over their working hours within core hours. When selecting candidates for the talent management program, we also made sure that it reflects the structure of the workforce as a whole. Thus, the proportion of women was 23.8 percent.

### 38 SHARE OF WOMEN IN THE TALENT MANAGEMENT PROGRAM



**EMPLOYEE PROFIT-SHARING.** For a number of years, our employees have shared in the company's profits. The profit-oriented participation model is calculated every year depending on the group's shipments, operating result and production costs. Employees will not receive a payout for 2012 as we did not achieve the relevant ratios.

**SUCCESSFUL PROCESS PLANNING THROUGH TEAMWORK PRODUCTIVE MANAGEMENT.** Smooth processes and effective structures in production and in all other areas of our group are key to our future competitiveness. Under our internal formal company suggestion plan, employees can submit their ideas for potential improvements in the various departments. In 2012, a total of 74 (2011: 149) employee suggestions were received, of which the majority were implemented. Since 2007, our Teamwork Productive Management system has ensured continuous process improvements at our production sites in Freiberg and Hillsboro.

**HEALTH AND SAFETY AT WORK.** We are constantly working to implement further health and safety improvements for our employees. In the period under review, we completed as planned the certification of our subsidiary SOLAR FACTORY GMBH and of SOLARWORLD AG in accordance with the Occupational Health and Safety Assessment Series standard OHSAS 18001. At our company's various locations, we organize various preventative options as well as fitness choices for employees. In Freiberg, we run an annual health day and offer a variety of health checks and back training classes. We also make it possible for employees to participate in our regular sports offerings. Likewise, at our locations in the United States, we organize a range of health programs such as fitness classes, quit smoking and nutrition courses. Safety at work takes a high priority in our quality management system. The accident rate per thousand employees decreased to 12.1 (2011: 15.3) in 2012.

**TRAINING OF YOUNG TALENT.** In 2012, 23 (2011: 29) trainees obtained their vocational qualification at our two German sites. The trainee ratio remained in Germany constant at 4.7 (2011: 4.7) percent. This year, due to the low number of vacant positions, we were only able to offer an employment contract to 21 (2011: 27) trainees. A further 19 (2011: 25) trainees began their careers in IT or in commercial or technical areas at our sites in Bonn and Freiberg in 2012.

**NEW OPPORTUNITIES OPENED FOR STUDENTS.** SOLARWORLD has maintained excellent contacts with university research and teaching for many years. At our Freiberg site, we foster close links with local faculties and support students working on research projects and dissertations.  *Close links with partners • p. 069* Our aim is to attract and retain young talent for our company in the long term. In 2012, we participated in the German National Scholarship Program ("Deutschlandstipendium"), which offers targeted support to students. Through this scholarship program, we specifically support students taking courses in "sustainable resource management", "material science", and "finance, operations and information management". Our goal is to show students potential opportunities and create incentives – for high-school graduates also – to study these courses. The scholarship program allows us to get involved as a sponsor, in addition to simply providing financial support. For example, we offer

targeted support to two information science students by providing them with a mentor from our company who enables them to gain practical experience in this area. This gives us the opportunity of getting to know potential young recruits in person, and preparing them for future specialist and management roles together with the finance and information management (FIM) core competence center at Augsburg University.

**AMONG THE BEST GERMAN EMPLOYERS.** Despite the great challenges we faced as a result of the global crisis in the solar industry, we maintained our position as an attractive employer in 2012. This was seen from the results of a recent survey by the research institute *trendence*. In the “German engineering edition” of the *trendence* barometer, German students voted SOLARWORLD the 16th most popular employer. This recognition encourages us to continue to position ourselves as a desirable employer in future, and to offer worthwhile incentives to potential candidates.

# ECONOMIC POSITION 2012

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The following presentation of the results, assets and financial position is subject to the presumption of going concern, is preliminary, has not been fully audited by nor received an audit opinion from the company's auditors. We also specifically point out that possible changes to the balance sheet in the scope of the audit of the annual and consolidated financial statements might possibly lead to substantial changes of the results disclosed below.

In 2012, we generated revenue of € 606.0 million. Sales regarding wafers, modules and kits amounted to 608 MW. In accordance with IAS 36, SOLARWORLD AG recognized impairment losses on fixed assets of € 189.5 million. The EBIT of the period under review amounted to € -492 (2011: € -244) million. The consolidated net result for the period 2012 amounted to € -477 (2011: € -307) million.

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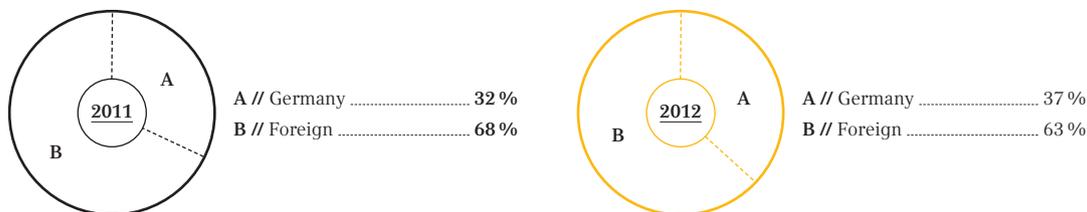
## RESULT OF OPERATIONS

### DEVELOPMENT OF REVENUE AND PROFIT OR LOSS

In the annual period 2012, the group's module and kit sales in the "Trade" segment amounted to 567 (2011: 555) MW. In the first six months of 2012, our quantity of sales mostly ranged within budget, which was primarily attributable to pull-in effects in Germany and Italy. The second six months of the 2012 period, however, developed considerably weaker than we had assumed in 2011 and even in mid-2012. Although we were able to slightly increase sales as compared to the prior period, this did not suffice to compensate the decline in prices that amounted to some 40 percent. Thus, at € 581 (2011: € 863) million, revenue in the "Trade" segment ranged 33 percent below that of the prior period.

As forecasted in the consolidated financial statements for the annual period 2011, wafer-related shipments decreased in the course of the year 2012. Overall, it decreased by 83 percent to 41 (2011: 240) MW. Revenue of the "Production Germany" segment that is primarily characterized by our wafer operations decreased by 91 percent to € 23 (2011: 263) million.  *Note 40: Segment reporting • p. 189//*

### 39 SHIPMENTS DIVIDED INTO DOMESTIC AND FOREIGN SALES

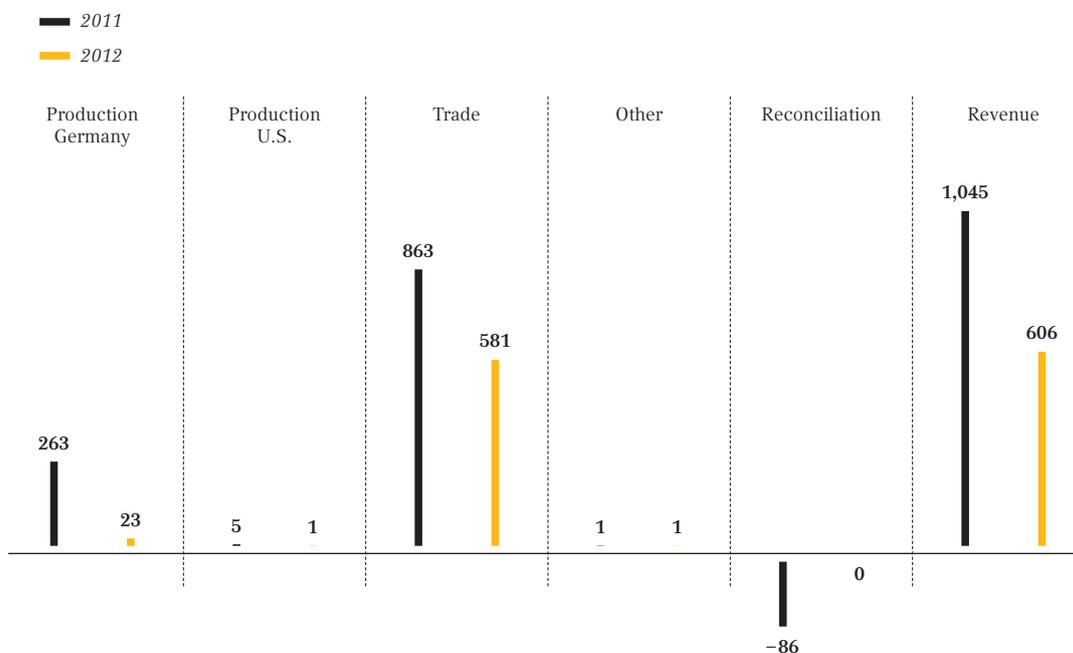


In total, group-wide sales of wafers and solar modules amounted to 608 (2011: 794) MW. This decrease can be attributed to the severe decrease in wafer sales. In the annual period 2012, the group-wide foreign shipment ratio decreased by 5 percentage points to 63 (2011: 68) percent. Main reasons were the strong German demand for modules and kits in the first six months of 2012 and the decrease of foreign wafer sales. ➔ *Trade • p. 057*// Due to the severe drop in prices and wafer sales, our consolidated revenue decreased by 42.0 percent or € 438.9 million to € 606.0 (2011: 1,044.9) million. The proportion of foreign revenue amounted to 50.4 (2011: 57.6) percent.

In accordance with IAS 36, impairment tests of fixed assets were conducted at the end of the period, which resulted in the necessity to recognize impairment losses of net € 176.1 million. The impairment loss contains gross impairment losses of fixed assets of € 189.5 million and corresponding reversals of accrued investment grants of € 13.4 million. Substantial reasons for this result are the overcapacities and the severe drop in prices. ➔ *Development of material income statement line items • p. 085*//

As already announced in the interim report 2012, the group was not able to achieve the goal set for 2012, i. e. positive earnings before interest and tax (EBIT). Our EBIT decreased to € -492.4 (2011: -243.9) million. The “Trade”, “Production Germany” and “Production US” segments’ EBIT amounted to € -164.5 (2011: -85.3) million, € -146.7 (2011: 48.8) million and € -161.2 (2011: -200.1) million, respectively.

## ④ REVENUE BY SEGMENT // IN M€



In the annual period 2012, our group-wide earnings before interest, tax, depreciation and amortization (EBITDA) decreased by € 424.3 million to € -215.6 (2011: 208.7) million. The financial result amounted to € -67.5 (2011: -59.5) million. → [Financing analysis • p. 088](#)

The consolidated result for the annual period 2012 amounted to € -476.9 (2011: -307.1) million.

## DEVELOPMENT OF MATERIAL INCOME STATEMENT LINE ITEMS

In the annual period 2012, cost of materials decreased by 35 percent to € 534.5 (2011: 819.2) million. This was primarily due to decreased production, cost cuts through optimization of the group-wide purchasing processes and improvement of the utilization of materials. The decrease, however, did not suffice to make up for the severe drop in prices for solar power products. The cost of materials ratio amounted to 98.7 (2011: 72.4) percent.

In the scope of the restructuring measures initiated in 2012, we adjusted our personnel to the reduced production quantities. Accordingly, personnel expenses decreased by 6.2 percent or € 8.6 million to € 129.6 (2011: 138.2) million. However, the personnel cost ratio increased to 23.9 (2011: 12.2) percent due to the decreased overall output.

Especially due to lesser impairment losses as compared to the prior period, amortization and depreciation decreased by € 175.8 million to € 276.7 (2011: 452.5) million. Impairment losses of fixed assets were also recognized in 2012. In the “Production Germany” segment, the result was a net impairment loss of € 83.6 (2011: 162.3) million regarding mainly the German wafer production while the net amount for the “Production US” segment amounted to € 84.6 (2011: 152.2) million. Mostly, the impairment loss concerns our US cell production. In addition, further unscheduled amortization and depreciation was recognized in an amount of € 7.5 million. (→ *Note 32: Amortization and depreciation* • p. 182//

Other operating expenses increased by € 20.4 million to € 246.2 (2011: 225.8) million mostly due to the impairment losses on prepayments in an amount of € 88.7 million conducted in the second six months of the annual period. Group-wide cost cut measures in the scope of restructuring worked as a countereffect. This mainly concerned external personnel, maintenance and marketing. In the reporting period, the expense ratio amounted to 45.5 (2011: 20.0) percent.

As compared to the prior period, other operating income decreased by € 107.2 million to € 153.3 (2011: 260.5) million. This decrease is primarily due to the prior period’s higher earnings effects from the non-compliance and cancellation of long-term supply contracts with wafer customers.

## ④1 FIVE-YEAR COMPARISON OF INCOME POSITION // IN K€

	2008	2009	2010	2011	2012
Revenue	900,311	1,012,575	1,304,674	1,044,935	606,021
Changes in inventories products	15,160	48,830	8,434	72,054	-64,666
Own work capitalized	7,740	3,117	1,025	14,349	65
Other operating income	36,841	69,934	100,791	260,499	153,299
<b>Operating performance</b>	<b>960,052</b>	<b>1,134,456</b>	<b>1,414,924</b>	<b>1,391,837</b>	<b>694,719</b>
Cost of materials	-454,060	-691,062	-834,780	-819,152	-534,493
Personnel expenses	-90,130	-99,783	-126,282	-138,224	-129,648
Amortization and depreciation	-55,166	-63,659	-88,503	-452,514	-276,736
Other operating expenses	-99,883	-127,127	-172,607	-225,805	-246,227
<b>Subtotal</b>	<b>-699,239</b>	<b>-981,631</b>	<b>-1,222,172</b>	<b>-1,635,695</b>	<b>-1,187,104</b>
<b>Result of operations</b>	<b>260,813</b>	<b>152,825</b>	<b>192,752</b>	<b>-243,858</b>	<b>-492,385</b>
Financial result	-72,144	-21,073	-44,131	-59,492	-67,489
Taxes of income	-53,422	-72,779	-61,309	-5,592	82,982
Result from discontinued operations (after tax)	13,432			1,808	0
<b>Consolidated net result</b>	<b>148,679</b>	<b>58,973</b>	<b>87,312</b>	<b>-307,134</b>	<b>-476,892</b>

## ④2 INDICATORS OF INCOME POSITION // IN PERCENT

	2008	2009	2010	2011	2012
<b>Return on sales</b> (Consolidated net result/revenue)	16.5	5.8	6.7	negative	negative
<b>Cost of materials ratio</b> (Cost of materials/revenue plus changes in inventory and own work capitalized)	49.2	64.9	63.5	72.4	98.7
<b>Personnel expenses ratio</b> (Personnel expenses/revenue from continued operations plus changes in inventory and own work capitalized)	9.8	9.4	9.6	12.2	23.9

## FINANCIAL POSITION

### FINANCING ANALYSIS

As compared to December 31, 2011, equity decreased by € 496.6 million to € 117.8 (Dec 31, 2011: 614.4) million until the end of 2012, which can be attributed to the consolidated loss. At the end of the period, our equity ratio amounted to 8.8 (Dec 31, 2011: 27.5) percent.

Per end of the period, our financial liabilities decreased by € 267.1 million to € 1,004.8 (Dec 31, 2011: 1,271.9) million. As of December 31, 2012, the group was not able to meet its agreed covenants. Thus, creditors of borrowed funds are entitled to give exceptional notice of termination. In total, this concerns an amount of € 404.5 million (mainly from issued promissory note loans). ⊕ Necessary restructuring and positive going concern prognosis • p. 094 // For this reason, previously non-current financial liabilities of € 403.6 million were reclassified and are now recognized as current financial liabilities. ⊕ Note 57: Non-current and current financial liabilities • p. 202 // Thus, at reporting date, 53.5 (Dec 31, 2011: 90.5) percent of our financial liabilities were classified as non-current.

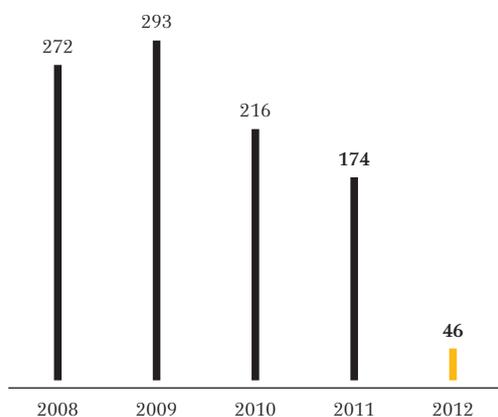
Investment grants and subsidies recognized in non-current liabilities decreased to € 51.3 (Dec 31, 2011: 56.8) million per end of the period. These public funds accrued on the liabilities' side of the balance sheet are reversed over the period of utilization of subsidized investments through profit or loss. Due to the conducted impairment test, the respective accrued investment grants were subject to unscheduled reversals in accordance with the impairment loss recognized for fixed assets.

Other noncurrent liabilities decreased by € 56.8 million to € 27.0 (Dec 31, 2011: 83.8) million. The noncurrent proportion of customer advances for supply contracts included therein amounted to € 26.3 (Dec 31, 2011: 79.2) million at the end of the period.

### INVESTMENT ANALYSIS

In the annual period 2012, we invested a total of € 46.5 (2011: 174.5) million in intangible assets and property, plant and equipment. Of this total amount, € 14.2 million and € 5.2 million concerned wafer production and module production at our German Freiberg site, respectively. Another € 18.4 million were invested in wafer, cell and module production at the Hillsboro/U.S. site. € 2.4 million were invested within the research and development entity SOLARWORLD INNOVATIONS GMBH while € 6.3 million were invested at other SOLARWORLD group sites.

## ④3 DEVELOPMENT OF INVESTMENTS // IN M€

**LIQUIDITY ANALYSIS**

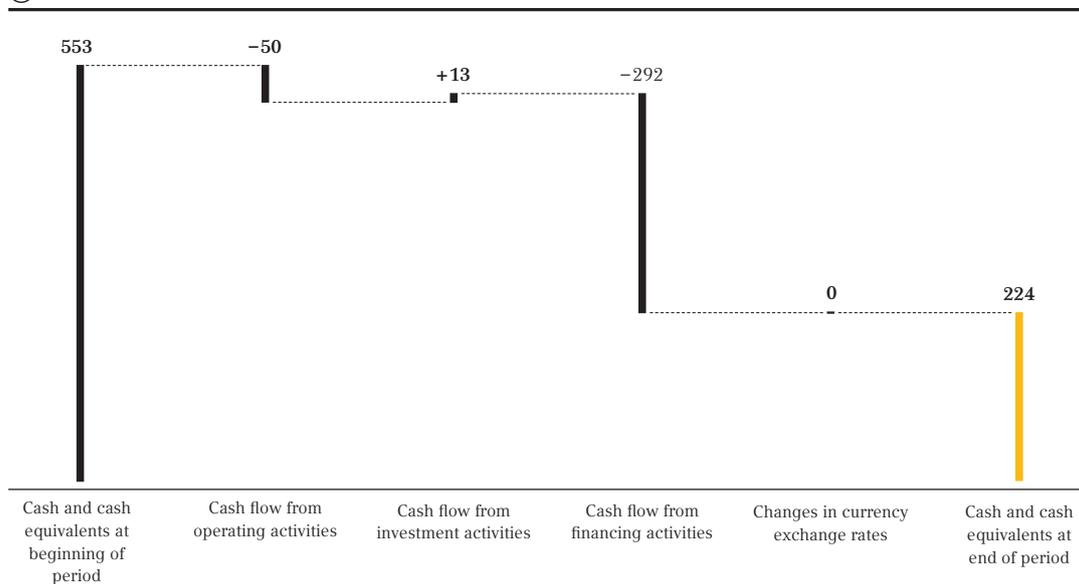
At the end of the period, liquid funds amounted to € 224.1 (Dec 31, 2011: 553.3) million and included cash and cash equivalents that mainly consisted of day-to-day money and fixed deposits.

The cash flow from operating activities amounted to € -50.2 (2011: -49.6) million.

Cash flow from investing activities amounted to € 13.0 (2011: -51.5) million. This is mainly due to cash receipts from the retirement of fixed assets in an amount of € 32.5 (2011: 22.8) million, the receipt of investment grants of € 27.5 (2011: 23.9) million and cash receipts from financial assets of € 7.9 (2011: 67.5) million. Cash payments of € -52.5 (2011: -181.4) million for investments in fixed assets had a counter-effect on the cash flow.

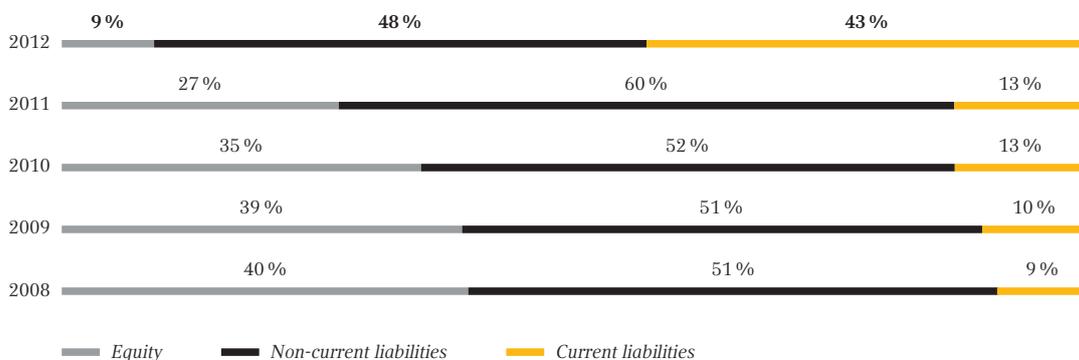
Cash flow from financing activities amounted to € -291.7 (2011: 46.4) million and primarily included cash payments for the repayment of loans in an amount of € -214.8 (2011: -132.6) million and interest payments of € -66.9 (2011: -59.8) million.

## ④ CASH FLOW RECONCILIATION // IN M€



## ④ FIVE-YEAR COMPARISON OF FINANCIAL POSITION // IN K€

Capital	31.12.08	31.12.09	31.12.10	31.12.11	31.12.12
Equity	841,075	865,462	914,372	614,391	117,771
Non-current liabilities	1,093,559	1,119,411	1,340,349	1,339,273	646,664
Current liabilities	185,988	232,177	341,637	282,108	569,129
<b>Total</b>	<b>2,120,622</b>	<b>2,217,050</b>	<b>2,596,358</b>	<b>2,235,772</b>	<b>1,333,564</b>



## ④6 INDICATORS OF FINANCIAL POSITION // IN PERCENT

	2008	2009	2010	2011	2012
<b>Return on equity</b> (Consolidated net income/equity)	17.7 %	6.8 %	9.5 %	negative	<b>negative</b>
<b>ROCE (key date)</b> (EBIT/Capital Employed*)	37.1 %	13.7 %	14.4 %	negative	<b>negative</b>
<b>First degree liquidity</b> (Liquid funds + other financial assets/current liabilities)	4.5	2.2	2.1	2.1	<b>0.7</b>
<b>Second degree liquidity</b> (Liquid funds + means available on short notice/ current liabilities)	5.0	3.2	2.6	2.8	<b>0.8</b>
<b>Third degree liquidity</b> (Current assets/current liabilities)	6.0	4.3	3.6	4.1	<b>1.2</b>

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

## FINANCIAL STANDING

### ASSET STRUCTURE ANALYSIS

As compared to December 31, 2011, SOLARWORLD group's consolidated balance sheet total decreased by € 902.2 million to € 1,333.6 (Dec 31, 2011: 2,235.8) million.

Noncurrent assets decreased by € 426.0 million to € 642.4 (Dec 31, 2011: 1,068.4) million. Working capital decreased by € 152.8 million to € 234.8 (Dec 31, 2011: 387.6) million. This is primarily due to the € 117.2 million decrease in inventories (excluding short-term prepayments made), which amounted to € 211.8 (Dec 31, 2011: 329.0) million and the € 67.4 million decrease in receivables which amounted to € 55.6 (Dec 31, 2011: 123.0) million. Trade payables decreased by € 31.8 million to € 32.6 (Dec 31, 2011: 64.4) million. Prepayments made on short notice recognized in inventories amounted to € 10.7 (Dec 31, 2011: 49.4) million. Income tax credits decreased by € 34.4 million to € 1.1 (December 31, 2011: 35.5) million.

## ④⑦ FIVE-YEAR COMPARISON OF ASSET POSITION // IN K€

Assets	31.12.08	31.12.09	31.12.10	31.12.11	31.12.12
Non-current assets	1,000,856	1,211,471	1,364,377	1,068,447	<b>642,447</b>
Current assets	1,119,766	1,005,579	1,231,981	1,167,326	<b>691,117</b>
<b>Total</b>	<b>2,120,622</b>	<b>2,217,050</b>	<b>2,596,358</b>	<b>2,235,773</b>	<b>1,333,564</b>



## ④⑧ INDICATORS OF ASSET POSITION // IN PERCENT

	31.12.07	31.12.08	31.12.09	31.12.10	31.12.11
<b>Equity ratio</b> (Equity/total assets)	39.7 %	39.0 %	35.2 %	27.5 %	<b>8.8 %</b>
<b>Investment intensity</b> (Non-current assets/total assets)	47.2 %	54.6 %	52.5 %	47.8 %	<b>48.2 %</b>
<b>Frist degree equity-to-fixed assets ratio</b> (Equity/non-current assets)	0.8	0.7	0.7	0.6	<b>0.2</b>
<b>Second degree equity-to-fixed assets ratio</b> (Equity + non-current liabilities/ non-current assets)	1.9	1.6	1.7	1.8	<b>1.2</b>

## OFF BALANCE SHEET FINANCIAL INSTRUMENTS

Off balance sheet financial instruments have no impact on the group's asset position.

## ASSETS NOT SHOWN IN THE BALANCE SHEET

The group had no assets not shown in the balance sheet as at December 31, 2012.

## OTHER INTANGIBLE ASSETS

In the context of our close-to-production research and development activities, we create better processes and methods that make a significant contribution to increasing efficiency and reducing costs in our current and future business. → [Innovation report](#) • p. 065//

Based on our high brand awareness, we were able to expand our position as a quality provider during the fiscal year. Via our customer programs, we strengthened ties with our German and American sales partners, adding lasting value to our brand. → [Brand and marketing](#) • p. 060//

# SUPPLEMENTARY REPORT

## DISCLOSURE AND IMPACT OF EVENTS OF PARTICULAR IMPORTANCE

**NECESSARY RESTRUCTURING AND POSITIVE GOING CONCERN PROGNOSIS.** In light of anti-competitive market conditions, the Management Board in consultation with the Supervisory Board of SOLARWORLD AG had the company's business planning for the years ahead – in particular its projected earnings and financial planning – reviewed by an external expert.

On January 24, 2013, in accordance with § 15 of the German Securities Trading Act (Wertpapierhandelsgesetz, WpHG), SOLARWORLD AG published an ad-hoc notification announcing the following: Based on corporate planning for the current and future years, which has been validated by external experts, the management assumes that serious reductions in the company's liabilities will be necessary, affecting in particular its issued bonds and assignable loans (Schuldscheindarlehen). At the same time, SOLARWORLD AG assumes the possibility more likely than not that it will be able to implement the necessary financial restructuring and necessary operational measures – in the interests of all parties. This therefore results in a positive going concern prognosis.

Since the publication of the ad-hoc announcement, the Management Board has had the going concern forecast reviewed on an ongoing basis. With the announcement of the need for restructuring, constructive negotiations were entered into. In particular, these include talks with SOLARWORLD AG's main lenders. These are, among others, the creditors of SOLARWORLD AG assignable loans (Schuldscheindarlehen). During the course of these talks, the aim is to reach an agreement on a restructuring proposal, which can then be presented to the bondholders of the two issued bonds and – if necessary – to the shareholders' meeting of SOLARWORLD AG with a request to draft the resolutions necessary to implement still in development restructuring concept.

**REORGANIZATION OF MANAGEMENT BOARD DEPARTMENTS AT SOLARWORLD AG.** On February 7, 2013, SOLARWORLD AG and Boris Klebensberger came in best consent to a mutual agreement on the termination of Mr. Klebensberger's position on the Management Board. As COO since 2001, Boris Klebensberger had been chiefly responsible for the development and expansion of the SOLARWORLD group in the areas of production, technology and product development. The Management Board was restructured to respond to the challenges facing the company and achieve rapid implementation of planned measures and projects.

- The production units in Freiberg and Hillsboro were placed directly under the leadership of CEO Dr.-Ing. E. h. Frank Asbeck. Mario Behrendt, Managing Director of DEUTSCHE SOLAR GMBH, and Gordon Brinser, President of SOLARWORLD INDUSTRIES AMERICA INC., report to the CEO as division heads.
- New appointments were made to an enlarged Management Board of SOLARWORLD INDUSTRIES AMERICA INC. in Hillsboro, highlighting the importance of the American market to the group. Its members are now: Philipp Koecke (CFO SOLARWORLD AG), Colette Rückert-Hennen (CIBPO SOLARWORLD AG), Jürgen Stein (Global Head of Procurement), Gordon Brinser (President SOLARWORLD INDUSTRIES AMERICA INC.) and Mukesh Dulani (Vice President Operations SOLARWORLD INDUSTRIES AMERICA INC.).
- The line structure at Freiberg was changed as follows: The Managing Directors of the Freiberg subsidiaries DEUTSCHE CELL GMBH and SOLAR FACTORY GMBH now report directly to the new division head Mario Behrendt.
- The Global Procurement department as well as SOLARWORLD INNOVATIONS GMBH are also under the responsibility of the CEO.
- Global Quality Management and Product Engineering were integrated into CSO Frank Henn's department to achieve further synergies and process optimization.
- The IT department was transferred to Colette Rückert-Hennen's area of responsibility, henceforth Chief Information, Brand and Personnel Officer (CIBPO).

**EU TO REGISTER CHINESE SOLAR IMPORTS.** On March 6, 2013, the European Commission started registration of solar products imported into the EU from China in anticipation of possible anti-dumping and countervailing duties. Ever since, importers of solar power modules, solar cells and solar wafers have had to specify at customs whether the products were imported from China or have been produced mainly in China. Importers may pay duties on such registered products if retroactive measures are imposed.

The current anti-dumping and anti-subsidy investigations in Brussels follow trade complaints filed by the initiative EU ProSun. The European Commission has been investigating Chinese manufacturers since September 2012, and will make a preliminary decision on anti-dumping in early June 2013. If anti-dumping tariffs are imposed, they can be collected 90 days retroactively, therefore from March 2013. ☞ *Legal and economic factors* • p. 054//

**SOLARWORLD AG NO LONGER LISTED IN TECDAX SINCE MARCH 2013.** As at March 18, 2013, the share of SOLARWORLD AG was excluded from the selective index TecDAX. The working group for indices of Deutsche Börse (German Stock Exchange) explained its decision by the comparatively low market capitalization of the SOLARWORLD stock. SOLARWORLD AG had been listed in the TecDAX since 2004.

**LARGE-SCALE PROJECTS SOLD IN THE U.S. AND IN GERMANY WITH A TOTAL CAPACITY OF ABOUT 47 MW.** At the end of the first quarter 2013, SOLARWORLD was able to sell two large-scale projects which are located in the Mojave Desert, California, to electric power holding company Duke Energy Renewables. The projects have an overall nominal capacity of 25.6 MW. In Germany, SOLARWORLD sold another solarpark in early April. Located at the Pütznitz Peninsula, Mecklenburg-Western Pomerania, it has a nominal capacity of 21.3 MW. All parties agreed that the terms of the purchases would be confidential. Having sold these projects has improved the group's liquidity and strengthened its international position in this business area.

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

The economic position of the group is rated as critical by the management of SOLARWORLD AG, taking into account the earnings, financial and asset position resulting from the consolidated annual financial statements for 2012 as outlined above, and considering ongoing business in 2013 at the time of drawing up the group management report. SOLARWORLD AG needs restructuring to adjust the level of external liabilities in line with the company's earnings power. In other words, it must be achieved, through negotiation, that the company's liabilities do not exceed a level at which the company can pay interest and capital repayments out of its operating income in the long term, and furthermore is able to generate income so that it also achieves a return on its equity.



CHAPTER #4

# GROUP MANAGEMENT REPORT FORECAST

3 / 6

— SOLARWORLD CREATES ADDED VALUE —

*WE*

ENSURE TOP  
**QUALITY**

Our solar modules are certified according to standards recognized worldwide. But our demands go much further than these standards. We thoroughly inspect our modules using our own testing procedures. To earn the SOLARWORLD label, our modules need to withstand salt mist, extreme heat, and bitter cold.



# 4 / GROUP MANAGEMENT REPORT FORECAST

## **099** EXPECTED FUTURE DEVELOPMENTS

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# EXPECTED FUTURE DEVELOPMENTS

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2013 will be another tough year for the solar industry. Although selling prices could fall further this year, SOLARWORLD is planning to increase its shipments of modules and kits, and to generate higher revenue than in the previous year. To achieve this, we are planning to develop new markets and continue expanding our international presence. We want to enhance our image as a global system provider with a strong brand, and we particularly want to expand our project business significantly. The group intends to work on the systematic implementation of its restructuring concept in order to guarantee its ability to continue to operate. In the future also, we will flexibly adjust our groupwide capacities in line with the demand situation. Our investment activities will focus on transferring innovations into industrial production. Despite an anticipated improvement in revenue, SOLARWORLD expects a negative operating result in fiscal year 2013 as well.

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## RISK REPORT

### OPPORTUNITY AND RISK MANAGEMENT SYSTEM

An opportunity and risk management system is necessary to enable the prompt identification and analysis of risks and as far as possible the proactive introduction of counter-measures. It is equally important to identify and exploit market opportunities at an early stage. Thus a strong opportunity and risk management system helps to safeguard the group's ongoing existence in the long term and enhance corporate value.

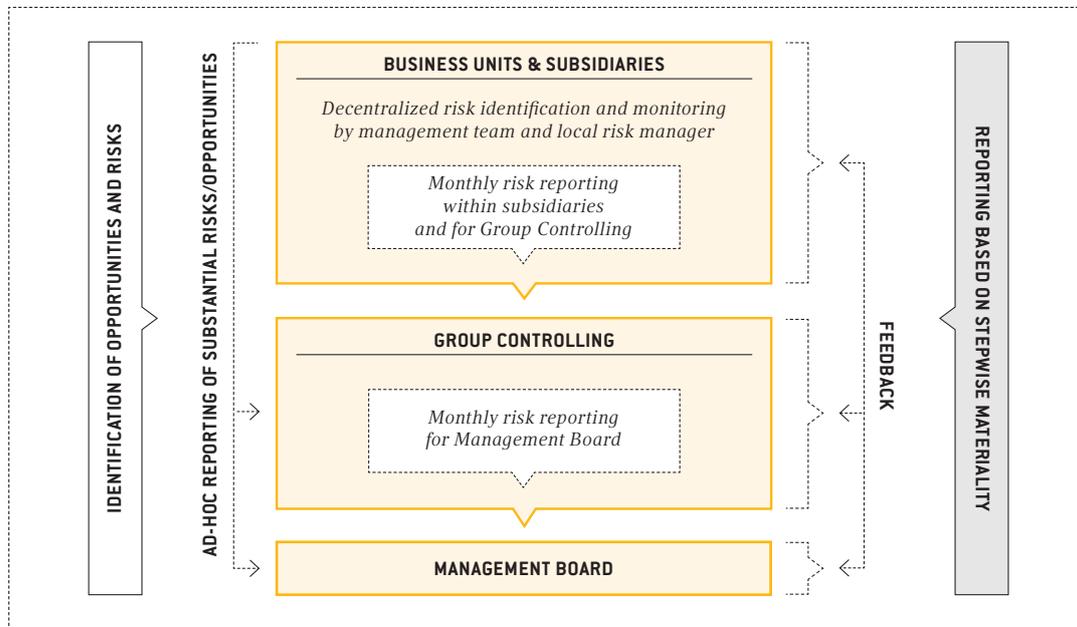
Based on the corporate strategy, the Management Board defines the essential features of the risk policy and manages the company accordingly. Group controlling, which is responsible for global opportunity and risk reporting, together with local risk managers supports the Management Board in assessing the probability of occurrence and effect on earnings of major opportunities and risks. One particular purpose of the opportunity and risk management system is to identify risks that could in principle threaten the continued existence of the company. Taking into account the acceptable overall risk level, the Management Board assesses all options available to the company to counteract the risks

identified as being a threat to the company's survival. The Supervisory Board is involved in an advisory capacity in all decisions concerning fundamental structural measures. The measures to be introduced are defined, implemented and controlled with the involvement of the Management Board, group controlling and local business management and risk managers. Insurance policies are taken out for the purpose of risk management where possible and economically justifiable.

All fully consolidated companies in the SOLARWORLD group are included in the opportunity and risk management system. (75) SolarWorld group structure as at December 31, 2012 • p. 160// Responsibility for identifying and monitoring risks primarily resides locally with managers in the first and second management levels. They are assisted by local risk managers, who produce monthly opportunity and risk management reports for group controlling. This reporting is produced taking materiality limits into account in respect of the impacts of opportunities and risks. In the case of risks and opportunities which are considered to have a highly material potential impact, reporting takes place immediately and directly to the Management Board.

Local reports are made available to the Management Board by group controlling in consolidated form. In addition, the Management Board is continuously informed about current market trends and receives regular competitor analyses. In Management Board meetings and in the Strategy Council, which is held several times each year, this market and competitor information is considered, material opportunities and risks are discussed, trends and measures to be implemented are examined. (76) Strategic group management • p. 043//

## 49 OPPORTUNITY AND RISK MANAGEMENT SYSTEM



### INTERNAL CONTROL AND RISK MANAGEMENT SYSTEM IN RELATION TO THE GROUP ACCOUNTING PROCESS

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

Within 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. Based on this structure, however, the functions of finance and accounting, controlling, and investor relations essential to the accounting process are controlled throughout the group by corresponding departments.

The functions and responsibilities of finance and accounting, controlling, and investor relations are clearly separated and allocated mutual control processes that assure a continuous exchange of information.

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

The financial systems used are protected against unauthorized access by appropriate installations in the IT system. We use standard software wherever possible.

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

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

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

Group accounting acts as the central point of contact for special technical questions and complex accounting issues. If required, external experts (auditors, qualified accounting specialists, etc.) will be consulted.

On the basis of data supplied by the group companies, consolidation takes place centrally in group accounting. In general, as a minimum, the principle of dual control applies at every level.

Independently of group accounting, a monthly analysis of target/actual and actual/actual deviations is carried out 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 IN RELATION TO FINANCIAL INSTRUMENTS

The task and objective of risk management with regard to financial instruments is to continually monitor market, liquidity and default risks and limit them if necessary by means of operational and financial measures. Rules and regulations have been established to control the use and handling of financial instruments, thus ensuring that no material financial transactions can take place without consulting the Management Board of SOLARWORLD AG. Risk monitoring is the responsibility of the respective boards and managing directors of the subsidiaries, who directly report existing and newly emerging financial risks to the Management Board of SOLARWORLD AG.

Derivatives are also used alongside financial instruments as a way of controlling financial risks. Derivative financial instruments are used exclusively for hedging purposes and not for trading or speculative purposes. Financial risks such as price, currency, and interest rate risks arising from our international business operations are countered by means of framework agreements, deadlines and hedges. We also refer to the following information on the respective individual risks and the disclosures in the notes. (→ *Note 65b: Principles and objectives of financial risk management • p. 210//*)

## INDIVIDUAL RISKS

### Legend:

Risk assessment		Time horizon of effects	
↑	Up year-on-year	<b>Short-term</b>	One to three years
↓	Down year-on-year	<b>Medium-term</b>	Three to five years
→	Flat year-on-year	<b>Long-term</b>	More than five years

**Preliminary note:** For the purposes of risk analysis and the disclosed counter-measures, we do not distinguish between the reportable operative segments “Production Germany” and “Production U.S.” in our in-house production, except in the case of risk factors which need to be assessed differently by region. Counter-measures may serve to reduce the risk › **reduce**, transfer the risk to third parties › **transfer**, e. g. by taking out insurance, or consciously assume the risk › **assume**.

## 50 MACRO-ECONOMIC RISKS →

### Risks

1. **Sovereign debt crisis and/or recession:** tighter financing terms and unstable economic conditions; lower private consumption, increased inflation risk
2. **Falling domestic electricity prices:** delays in solar power becoming competitive/reaching grid parity; slowdown in tapping new markets

### Probability

1. **High:** The existing levels of national debt in the euro area may further threaten the stability of the euro. This could negatively influence the economic and financial position. Restrictive fiscal policy could slow down the economy and reduce the private sector's propensity to invest. Overall, we expect continued high risk with regard to tighter financing terms. In the short term, credit bottlenecks could occur for large-scale investment projects and especially for project financing.
2. **Low:** Since falling costs of primary sources of energy were hardly passed on to customers in the past, and energy prices are expected to tend to rise in future due to the further increase in energy demand, we assess the risk as low.

### Effect (strength, time horizon)

1. **Medium, short-term to long-term:** A decline in demand by end customers might have a medium effect on our group revenue and earnings. Large-scale projects would be worst affected by a tougher financing environment.
2. **Medium, medium-term:** Over the medium term, domestic electricity prices will impact on our business since end customers may choose between self-produced solar power or power from a utility company, i.e. the electricity generation costs of a solar power system are compared with domestic electricity prices.

### Counter-measures

- **Trade:** Our internationalization strategy helps us spread the risk of a decline in consumption among various regional markets › **reduce**. By offering a diversified range of products, we appeal to various customer groups in order to spread the financing risk and compensate for shifts in demand › **reduce**. ☺ *Future sales markets 2013+ // "Trade" segment • p. 125//*
- **Production; Other:** Ongoing cost reductions and efficiency enhancements along the entire value chain have already enabled us to undercut domestic electricity prices in a number of markets, and we continue to get closer elsewhere › **assume**.

## 51 POLITICAL AND REGULATORY RISKS →

**Risks**

**Changes in laws promoting solar power:** slower market growth due to a reduction in or even abolition of financial incentives in individual countries

**Probability**

**High:** Economic incentives for solar power are discussed time and again by policymakers in important sales markets such as Germany, the United States, Italy and France. Further changes to legislation can be expected in these countries in 2013. Overall, government financial incentives for solar power will be further reduced. ↻ [The future solar power market](#) • p. 122 //

**Effect (strength, time horizon)**

**High, short-term to medium-term:** Declines in demand due to changes in the regulatory framework in individual regions may temporarily have a negative impact on our revenue and earnings. As long as grid parity has not been achieved in individual markets, SOLARWORLD will be exposed to this risk.

**Counter-measures**

- **Trade:** We spread this risk across several markets by means of our international presence › **reduce**. ↻ [Future sales markets 2013+ // "Trade" segment](#) • p. 125 //
- **All segments:** Continuous cost reductions and efficiency enhancements facilitate faster achievement of grid parity and thus progressive independence from incentives with long-term competitive pricing › **assume**.
- **All segments:** We engage in dialog with politicians and society, are active in several industrial associations and are committed at a socio-political level to increasing the percentage of photovoltaics in the energy supply › **assume**. Ⓞ [Sustainability in detail](#) • p. S113 //

## 52 RISKS ARISING FROM ALTERNATIVE SOLAR POWER TECHNOLOGIES ↓

### Risks

**Technological breakthrough or sharp cost reductions in alternative solar power technologies:** risk of substitution for crystalline technologies

### Probability

**Low:** Due to current silicon price levels, few manufacturers of alternative solar power technologies have cost benefits versus crystalline manufacturers. This particularly applies to the roof-mounted systems market as alternative solar power technologies only have low module efficiency, making optimum use of limited roof space more difficult.

### Effect (strength, time horizon)

**Medium, long-term:** Successful competitors might reduce our market share and increase price competition, thus placing stronger pressure on margins. This might adversely affect our revenue and earnings.

### Counter-measures

- **Production; Other:** Ongoing investments in research and development to enhance efficiency and optimize costs › *assume*.
- **Production; Other:** Regular, analytical observation of the development of alternative technologies in the market › *reduce*.  
 ↪ *Opportunity and risk management system* • p. 099 //

## 53 RISKS FROM TOUGHER COMPETITION ↑

**Risks**

**Intensification of competitive pressure:** Continuation of consolidation at all stages of the value chain in the solar industry; increased competition from state-sponsored manufacturers; unfair pricing practices; excess capacities; dumping

**Probability**

**High:** The consolidation wave will continue to accelerate as competitive pressure increases. So far, this has prevented any lasting stabilization of sales prices. The risk of unfair competition rises as competitors sell below production costs on a long-term basis to drive competitors out of the market ⊕ *The future solar power market* • p. 122//

**Effect (strength, time horizon)**

**High, medium-term to long-term:** Loss of market share, failing profitability and increased negative margin trends due to unfair trade practices and stronger international price competition may weigh down revenue and earnings. The longer the consolidation of the solar industry continues in such a way, the more difficult it is for companies to implement successful measures to restore business profitability.

**Counter-measures**

- **Trade:** differentiation of our products through innovation, quality, service and design › **reduce**; customer retention programs › **reduce**. ⊕ *Brand and marketing* • p. 060//
- **Other:** legal steps to guard against dumping and unfair competition by Chinese solar manufacturers in Europe › **assume**. ⊕ *Legal and economic factors* • p. 054//
- **Production; Other:** optimization of production along the entire value chain to improve our cost structure; research and development › **assume**
- **Production; Other:** measures to make capacity utilization more flexible › **reduce** ⊕ *Flexible use of production capacities* • p. 127//

## 54 PROCUREMENT RISKS ↑

**Risks**

1. **Varying opinions in regard to the fulfillment of long-term silicon contracts:** Silicon manufacturers insist on fulfillment of unfavorable purchase terms from older long-term contracts; supplier relationships could be burdened.
2. **Costs of purchasing other raw materials (silver, copper, aluminum, etc.) on the rise:** higher procurement costs, strong speculative fluctuations – particularly for silver, aluminum and copper, inaccurate hedging for forward transactions

**Probability**

1. **High:** According to external legal opinions, these long-term silicon supply contracts violate EU anti-trust laws and are more likely than not null and void or could be come invalid. Therefore, SOLARWORLD intends to demand the return of the prepayments.
2. **High:** A rise in the international demand for raw materials in all industries could cause raw material prices to rise.

**Effect (strength, time horizon)**

1. **High, short-term to medium-term:** As a rule, our silicon supply contracts are take-or-pay contracts. However, the company assumes that these contracts are null and void or could be come invalid and that claims for restitution in regard to these prepayments exist. Nevertheless, a partial or a total loss of the prepayments or further claims for damages cannot be completely excluded to the extent that the company cannot agree with its suppliers or courts make different assessment. If the affected silicon suppliers refuse to deliver to SOLARWORLD, the company would have to find alternative suppliers. This entails the risk that the company cannot procure sufficient silicon of the appropriate quality, which in turn could have the effect of reducing earnings.
2. **High, short-term:** Higher prices for other raw materials could negatively impact earnings and margins.

**Counter-measures**

- **Production; Trade:** Expansion of our supplier networks and maintenance of our good, long-term supplier relationships; renegotiations with silicon suppliers; flexibilization of purchase terms › **assume** → *Future procurement* • p. 128 //
- **Production; Trade:** Use of alternative products reduces dependence on individual suppliers › **reduce**.

## 55 CORPORATE STRATEGY RISKS ↑

**Risks**

1. **Misjudgments concerning future developments:** bad strategic decisions with regard to investments, disinvestments, technology development, location decisions, financing, organizational structure and business model
2. **Industrial espionage:** loss of intellectual property, technological advantages, patents, etc. as a result of systematic industrial espionage

**Probability**

1. **High:** The solar power industry is currently experiencing rapid market changes and tough competition. In this critical market environment, it is more difficult to design long-term strategies that can also withstand the consolidation phase. Owing to the prevailing state of cut-throat competition, market participants are currently acting in an increasingly irrational and unpredictable way. This increases the risk of making wrong strategic decisions.
2. **High:** Stronger competitive pressure increases the danger of industrial espionage.

**Effect (strength, time horizon)**

**High, short-term to medium-term:** Losses of market shares, image, and capital due to wrong strategic decisions might erode the group's economic position further. Lack of acceptance of new products might impact on our revenue and earnings. Loss of intellectual property might diminish our pioneering role and mean the loss of competitive advantages. Due to the tight financial situation, it is not currently possible to pursue multiple strategies simultaneously, with the result that bad decisions could threaten the company's survival.

**Counter-measures**

- **Other:** make use of external consultants › *reduce* › *transfer*
- **Production; Other:** strategic alliances to diversify the investment risk › *transfer* › *assume*
- **Other:** production-related research and development activities, and cooperation schemes with universities and research centers › *reduce* ☺ *Close links with partners* • p. 069//
- **All segments:** identify market trends by means of market analyses in all business segments and long-term relationships with customers, suppliers and political decision-makers › *reduce* › *assume*
- **All segments:** stricter security precautions, particularly in IT › *reduce*
- **All segments:** more global orientation of structures and functions in the group; exchange best practices between individual group locations › *assume*

## 56 DEFAULT RISKS ↓

### Risks

**Insolvency of individual customers:** loss of receivables outstanding

### Probability

**Low:** Under the effects of the consolidation wave, the majority of our wafer customers have now pulled out of the market or terminated their contracts with us. As a result, the likelihood of further defaults has decreased compared to last year. Our customers in the “Trade” segment are mainly wholesalers, who are not affected by the solar industry crisis. Therefore, we assess the general risk of bad debt loss in this area to be low.

### Effect (strength, time horizon)

**Low, short-term:** Any contractual default or non-performance of payment obligations by our wafer customers now could only have a limited negative impact on earnings and liquidity. The loss of receivables from individual customers in the “Trade” segment would only have a small impact on our business as we have a very broad customer base and none of our customers accounts for more than 10 percent of our revenue.

### Counter-measures

- **Production; Trade:** ongoing monitoring and analysis of receivables and selective conclusion of credit insurance policies  
› *reduce* › *transfer*
- **Production; Trade:** cash in advance and down-payment arrangements › *reduce*
- **Trade:** spread risk across a wide customer base of more than 1,200 customers, including international system integrators, specialized wholesalers and installers › *reduce*

## 57 SALES AND PRICE RISKS ↑

Risks
1. <b>Continuing or further increases in price pressure and supply surplus:</b> lower demand for our products
2. <b>Purchase of less than agreed volumes and cancellation of contracts:</b> non-performance of long-term wafer contracts
3. <b>Large-scale projects remain unsold after completion:</b> Cash is tied up long-term.
Probability
1. <b>High:</b> Price pressure in the market may intensify as a result of consolidation and changes in the legal framework in core markets. Less favorable funding and financing conditions for purchasing solar power systems could lead to drops in demand on the market. ↪ <i>The future solar power market</i> • p. 122 //
2. <b>Low:</b> Owing to the small number of remaining wafer customers, we assess this risk as low.
3. <b>Medium:</b> With constantly falling production costs for solar power, higher quality of planning and technology in solar farms, and continuing low interest rates with a lack of lucrative alternative investment options for investors, the profitability of large-scale projects remains at an attractive level. Focusing more on international markets, we expect stable demand for solar projects. However, investors may withdraw their investment commitment during construction.
Effect (strength, time horizon)
1. <b>High, short-term:</b> If less than the agreed volumes of our products are purchased or if prices fall drastically, this could mean that we are unable to manufacture at a cost-covering price. Furthermore, impairments on inventories may be necessary, which would adversely affect earnings. Not only could a steep drop in demand diminish revenue, it could also result in excess production capacities that negatively impact unit costs as well as margins and affect the intrinsic value of the production facilities. It could also increase our storage costs.
2. <b>Low, short-term:</b> Contractual defaults could only have a limited adverse effect on earnings now as we have hardly any remaining customers in the wafer business and the company is increasingly shifting its strategic focus onto system sales.
3. <b>High, short-term to medium-term:</b> Large-scale projects that remain unsold after construction would tie up liquid funds. In a worst case scenario, these parks would have to be carried as assets in our balance sheet. Owing to the current tight liquidity situation in the group, any longer-term lockup of liquid funds could seriously limit the company's ability to act.
Counter-measures
<ul style="list-style-type: none"> <li>• <b>Trade:</b> identify changing customer needs at an early stage and target them specifically with new products › <i>assume</i>; enhance the value added of the SOLARWORLD brand; increase customers' loyalty to the company and affirm their decision to buy from SOLARWORLD › <i>assume</i></li> <li>• <b>Trade:</b> spread risk across a wide customer base of more than 1,200 customers, including international system integrators, specialized wholesalers and installers › <i>reduce</i>.</li> <li>• <b>Other:</b> keep unsold large-scale projects as own inventory and generate revenue from electricity production; sell at a later point in time › <i>assume</i></li> </ul>

## 58 RISKS FROM LARGE-SCALE PLANT BUSINESS ↑

### Risks

1. **Non-realization of projects:** Large-scale projects are not continued beyond the planning stage.
2. **Regional shortage of suitable land:** limited availability of land that can be profitably developed in core markets

### Probability

1. **Medium:** There is a large number of conditions which are necessary for a project to succeed. These range from the conclusion of a usage agreement for a suitable piece of land, to obtaining the construction permit, to the physical construction of the project. In addition, there are general financial risks and risks specific to SOLARWORLD in short-term interim and long-term external project financing.
2. **Medium:** Depending on the region, subsidy conditions and solar radiation values, the supply of suitable land for the construction of profitable large-scale plants may become limited. In markets like Germany, where the rate of new installations was very high in the past, many attractive areas have already been developed or are not available to the solar industry.

### Effect (strength, time horizon)

1. **Medium, short-term to medium-term:** The further the planning process has advanced, the more heavily expenditures resulting from abandoning a project would weigh down earnings. Project planning ties up liquid funds in the short to medium term, which are therefore not available for the company to use elsewhere. If a project is not completed, in addition to start-up costs and consequential costs, opportunity costs may be incurred through the provision of funding.
2. **Medium, medium-term:** Less favorable location conditions have to be taken into account in the planning and realization of new projects, and/or more capital has to be invested to secure suitable sites. This may reduce the profitability of the project and therefore lower the sale price.

### Counter-measures

- **Trade:** Careful project management with particular attention to project and financial planning › *assume*
- **Trade:** Spread risk by developing selected international markets › *reduce*

## 59 HUMAN RESOURCES RISKS →

### Risks

**Shortage of highly-skilled technical and executive staff:** difficulties in filling key positions, high employee turnover

### Probability

**High:** The availability of highly qualified technical and executive staff in the labor market is declining, while competition for talent is growing. The strong trend toward consolidation in the solar industry negatively affects the solar market's appeal to young people just starting out in their careers or those entering the market from other industries.

### Effect (strength, time horizon)

**Medium, medium-term:** Potential erosion of our technological edge and slowdown in corporate growth due to a shortage of skilled technical staff might adversely affect revenue and earnings.

### Counter-measures

- **All segments:** selective, needs-oriented skills development for our existing staff; strengthening our image as an attractive employer; employee motivation through strong leadership and corporate culture, working hours schemes › **reduce** › **assume**  
 (→ *Employees* • p. 077//
- **All segments:** defining deputy roles and powers within the scope of our quality management system › **reduce**

## ⑥0 IT RISKS ↑

**Risks**

1. **Disturbances in the operation of IT systems and networks:** endangerment of availability of IT services at international sites

2. **Hacker attacks:** risks by data loss and industrial espionage

**Probability**

1. **Medium:** Our IT systems undergo regular maintenance and are adapted so that they meet professional, organizational and safety-related demands.

2. **High:** Attacks on IT infrastructure cannot be influenced by the company. Regular security updates, controls and action plans prevent and limit the effects on our operative business.

**Effect (strength, time horizon)**

1. **Medium, short to medium-term:** Interruption of production and workflows might cause productivity losses.

2. **High, long-term:** Industrial espionage and theft of intellectual property could result in the loss of competitive advantages.

**Counter-measures**

- **All segments:** regular investments in updates, software and hardware systems; up-to-date virus scanners and firewalls reduce the risk of virus and hacker attacks; certified systems enhance security and reliability; encryption protects our data › *reduce*.
- **All segments:** Separation of production and administration IT systems to minimize potential failure risks › *reduce*.
- **All segments:** Regular data backups several times per day › *reduce*.

## 61 LIQUIDITY RISKS ↑

Risks
1. <b>Termination of loans and the associated early repayment due to non-compliance with the covenants:</b> Risk of insolvency
2. <b>Longer-term negative earnings position:</b> increased outflow of funds; negative operating cash flow
3. <b>Longer and more extensive capital lockup:</b> Expanding large-scale plant business locks up liquidity.
Probability
1. <b>Medium:</b> The Management Board has been in negotiations with creditors since January 2013 with the goal of agreeing on a financial restructuring concept. The Board assesses the probability as more likely than not that the necessary financial restructuring can be successfully implemented. ↻ <i>Note 65e: Liquidity risks • p. 212 //</i>
2. <b>High:</b> Ongoing price deterioration and falling shipments could further worsen the earnings position and accelerate the outflow of liquid funds from the company.
3. <b>High:</b> SOLARWORLD intends to increase its involvement in the large-scale project segment. However, intensification of the project business brings the risk of more extensive cash resources being tied up for longer periods of time.
Effect (strength, time horizon)
1. <b>Strong, short-term:</b> The refinancing environment for solar industry companies is extremely difficult due to the current industry crisis. If creditors demand early repayment of our financial liabilities, there would be a risk of insolvency for the company.
2. <b>Strong, short-term to medium-term:</b> Ongoing negative operating cash flow could have a massive negative impact on the group's liquidity situation, limiting our ability to act and to pay. If the company is exposed to this situation in the longer term, it would make refinancing with borrowed capital even more difficult.
3. <b>Strong, short-term to medium-term:</b> Any longer and more extensive tying up of cash resources could seriously affect the company's solvency.
Counter-measures
<ul style="list-style-type: none"> <li>• <b>All segments:</b> regular meetings with all of our creditors; closer control of liquidity using active working capital management; measures to appraise assets › <i>reduce › assume</i></li> <li>• <b>All segments:</b> renegotiation and restructuring of financial debts › <i>reduce</i></li> <li>• <b>All segments:</b> ↻ <i>Note 65e: Liquidity risks • p. 212 //</i></li> </ul>

## 62 OTHER FINANCIAL RISKS →

### Risks

Currency, interest rate and price risks

### Probability

**Medium:** Due to the procurement of raw materials, in particular in U.S. dollars, and the sale of U.S. 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.

### Effect (strength, time horizon)

**Medium, long-term:** impact on the financial result of our business operations; thanks to pro-active, regular, careful review of our financial instruments, we assess these risks as being medium.

### Counter-measures

- **All segments:** selective use of derivative and non-derivative financial instruments › *transfer* › *reduce* → *Note 65: Capital management and financial instruments • p. 209//*

## 63 LEGAL RISKS ↑

### Risks

**Legal risks:** There is a wide range of tax, competition, patent, anti-trust, trade mark, and environmental regulations within the scope of our international business operations, infringement of which may cause costs

### Probability

**High:** In the current situation in the solar industry, the risk of legal claims increases from long-term supply relationships which have previously been entered into. This relates in particular to our subsidiary DEUTSCHE SOLAR GMBH, which was recently sued for damages by a supplier from the United States. Beyond this, SOLARWORLD is currently not aware of any material risks from litigation, patent infringement, or other legal risks that might significantly impact the business situation of the company. As a result of our global sales presence, however, risks could in principle arise in connection with legal disputes relating to trademark usage.

### Effect (strength, time horizon)

**Medium, long-term:** Litigation might impact on the result of our business operations since it would tie up financial resources, jeopardize the company's reputation and brand, and cause losses of tangible and intangible corporate property.

### Counter-measures

- **All segments:** integrated legal advice from specialized external legal experts › *assume* › *reduce*
- **All segments:** adherence to strict quality and safety standards in the group › *reduce*

## 64 GUARANTEE AND OTHER LIABILITY RISKS →

### Risks

1. **Guarantee risks:** granting a linear performance guarantee of 25 years for solar modules sold by us

2. **Other liability risks (e.g. product safety)**

### Probability

1. **Low:** Based on careful examination of our process and product quality, we assess the risk of claims being made against our performance guarantee as low.

2. **Low:** 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.

### Effect (strength, time horizon)

1. **Medium, long-term:** potential negative impact on our earnings, financial and asset position in the event of guarantee claims

2. **Medium, long-term:** production losses, loss of assets, potential claims for damages

### Counter-measures

- **All segments:** risk provisioning in the balance sheet for the company's guarantee commitment through the formation of a provision › **assume** (⇒ *Note 59: Non-current and current provisions • p. 203//*)
- **All segments:** securing other risks via comprehensive insurance cover based on conventional concepts › **transfer**; regular review of the extent of insurance cover for risks, based on site inspection › **transfer**; compliance with legal provisions and voluntary adherence to more far-reaching standards (e.g. ISO 9001 and ISO 14001, codes of conduct) › **assume**
- **All segments:** analysis of complaints and improvement of product quality › **reduce** › **assume**.

## 65 ENVIRONMENTAL AND OTHER RISKS →

### Risks

1. **Environmental risks:** higher insurance premiums due to more frequent storms/fires/drought periods caused by progressive climate change; punishment for infringement of environmental laws
2. **Conflicts with stakeholders:** for example because of inconvenience caused by noise and light emissions for residents living in the direct vicinity of our production sites

### Probability

1. **High:** Climate experts forecast an increase in extreme weather incidents.  
  
**Low:** Fines or compensation payments are less probable since we ensure compliance with standards by means of our environmental management system.
2. **Low:** There are many stakeholders with many different needs. By facilitating direct dialog with our stakeholders we reduce the probability of conflict.

### Effect (strength, time horizon)

1. **Low, medium-term:** Potential damage due to more frequent storms/fires or costs in the wake of drought periods and floods will not affect us more than other companies.  
**Medium, medium-term:** Fines or compensation payments might impact on the financial position of our company.
2. **Medium, long-term:** Should any serious conflicts with stakeholders arise, this might impact on our company (via damage to our image and follow-up costs) over the very long term.

### Counter-measures

- **All segments:** Current risks are largely covered by insurance policies › *transfer*.
- **All segments:** Further development of the company's environmental management system › *reduce*
- **All segments:** Stakeholder dialog, for instance through discussions with residents at neighborhood meetings and the joint preparation of measures, e. g. to reduce noise and light emissions › *reduce*

## OVERALL STATEMENT BY THE MANAGEMENT BOARD ON THE GROUP'S RISK POSITION

From the current perspective, the Management Board assesses the described risks as high. Regardless of the need for restructuring within SOLARWORLD AG, the Management Board assumes a positive going concern prognosis, and that the valuations in the financial statements can and should be performed on a going concern basis (going concern values) as is the normal case provided by law. This positive going concern prognosis results, in particular, from the Management Board's assumption that the creditors involved in restructuring are willing – in the interests of all parties – to accept the measures necessary for the long-term continuation of the company, and that in the ongoing talks, SOLARWORLD AG will reach agreement with the main providers of capital, particularly creditors of the assignable loans (Schuldscheindarlehen) and holders of the issued corporate bonds. The negotiations

conducted by the Management Board in this regard are going well and the creditors who have been approached are willing in principle to hold talks with SOLARWORLD AG about the envisaged restructuring. ↻ Overall statement by the management board on the economic position at the time of the report • p. 096//

## OPPORTUNITIES

### OPPORTUNITIES FROM THE DEVELOPMENT OF GENERAL CONDITIONS

**NEW MARKETS ARE OPENING UP.** Despite the industry crisis, 2012 was a year that showed the enormous growth potential of photovoltaics. New installations reached a record level. Experts predict that solar power will become established as an energy source in nearly every region on earth. In addition to mature markets such as Germany and the United States, a series of emerging markets will develop. Sarasin Bank expects an average annual growth rate of around 17 percent to the year 2016.

A decentralized supply using renewable energies, as enshrined in our vision, is becoming possible for a broad consumer base – particularly through intelligent combination with other energy sources. The technology for storing solar power, and thereby optimizing self-consumption, will improve still further in the years ahead. This development opens up new prospects for established solar markets such as Germany and the United States, but also for countries which do not offer solar incentive schemes. Regions with high solar radiation levels are most attractive, as photovoltaics can be used particularly cost-effectively in these regions.

SOLARWORLD will launch new products including high-performance modules and the glass-glass module in 2013. With its lower degradation and higher yields, this module is particularly suited to use in solar farms – both in on-grid and off-grid regions. Our new battery system SUNPAC 2.0, which will be launched in the third quarter of 2013, is also geared to the increased need for decentralized energy supply options. SOLARWORLD intends to use the opportunity to position itself with new products as a premium provider of solar solutions for self-consumption.

**POSITIVE EFFECTS EXPECTED FROM RULING AGAINST ILLEGAL TRADE PRACTICES.** The final ruling in the U.S. trade dispute in November 2012 brought independent legal confirmation that the allegations of distortive practices made against Chinese solar manufacturers were justified. Since November 2012, we have

seen indications that this decision will have a stabilizing impact on price development in the U.S. solar market in 2013. A positive outcome from the trade dispute should also contribute to stabilization of the market in Europe.

An end to dramatic and anti-competitive price deterioration gives all manufacturers in the solar sector the opportunity to return to a profitable earnings situation and invest more strongly in research and development again. High cost pressure and ruinous competition in the recent past were extremely detrimental to innovation, as they undermined technological competition between solar manufacturers. As a result, technological progress in the solar industry as a whole was impeded, and its sustained growth obstructed.

## STRATEGIC OPPORTUNITIES

SOLARWORLD plans to position itself more strongly at the end of the value chain, which means that in sales we will focus on the market for complete systems in all size classes. Higher revenues can be realized here than by selling individual components such as modules and wafers.

Interest in storage technologies is growing all the time. This is why, since March 2011, we have been involved in mining lithium, one of the raw materials used in lithium-ion batteries. We secured exploration rights in the eastern Ore Mountains (Zinnwald) on the German-Czech border. This lithium deposit is among the ten largest in the world. In this project, we closely work together with TU Bergakademie Freiberg (TUBAF). Over the course of fiscal year 2012, we conducted a feasibility study to assess the costs of exploring and processing the deposit. The results of this study will be available to us in the first half of 2013. All further decisions will depend on the results of this study.

## PERFORMANCE-RELATED OPPORTUNITIES

We adjusted our procurement structures in fiscal year 2012. In the new delivery contracts, instead of negotiating the purchase of absolute quantities, we agreed on supplying a pro-rata portion of our material requirements. We are therefore able to extend the flexibilization of our production to our supply chains and purchasing processes, and realize further savings potential. This will enable us to react more quickly to changes in market conditions in a way that is more in line with our needs. (→ Procurement • p. 076// By selecting the right suppliers and pooling order quantities, we will continue to optimize our procurement costs and reduce our Bill of materials. (→ Future procurement • p. 128//

We will transfer important projects from research and development into production in 2013. ☞ Innovation report • p. 065// We expect these to result in significant increases in the performance classes of our products and considerable cost savings in production. Both effects could have a positive impact on our earnings. In particular, the introduction of a new crystallization process, developed in-house, that enables monocrystalline wafers to be manufactured at significantly lower cost, should give us important competitive advantages over other solar manufacturers in the second half-year. ☞ Rapidly implement innovations • p. 127//

## THE FUTURE MARKET 2013+

### FUTURE ECONOMIC ENVIRONMENT

**ECONOMIC GROWTH REMAINS WEAK.** A decisive upturn in the global economy cannot be expected in 2013. The Kiel Institute for the World Economy (IfW) estimates that global output will increase by only 3.4 (2012: 3.2) percent. Analysts believe that the unresolved European debt problems and restrictive fiscal policy in most industrialized countries will continue to dampen the economy in 2013. Therefore, the global economy might not pick up again until 2014, with growth of 3.9 percent.

According to IfW, the recession in the euro area will continue in 2013. The main reasons are the high debt burden and consolidation pressures on government budgets. Because of the crisis, investment and private consumption will only recover slowly. Gross domestic product in 2013 is therefore likely to decline by a further 0.2 (2012: -0.5) percent.

Germany will not be spared from the euro crisis. According to IfW, domestic consumption will not be sufficient to compensate for weak foreign trade. Continued weak corporate investment is expected, with production capacities not fully utilized. Consequently, the German economy is likely to lose momentum in 2013 and grow by a mere 0.3 (2012: 0.7) percent. Stronger growth of 1.5 percent is not expected until 2014.

In the United States, the economic recovery will remain moderate. Ongoing conflicting power relationships between the House of Representatives and the Senate are making it difficult to implement fiscal measures to stimulate the economy. Structural problems such as excess capacities in the real estate market and high private household indebtedness continue to retard economic growth. IfW expects gross domestic product to grow by 1.5 percent in 2013 and 2.5 percent in 2014 (2012: 2.2 percent).

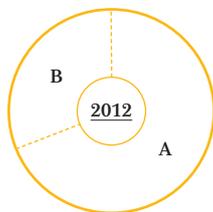
As the global economy's recovery strengthens, demand for oil looks set to increase in 2013. But the Energy Information Administration (EIA) also expects sufficient production increases to compensate for the increased demand. Current forecasts predict that prices for WTI crude will fall in 2013 to average US\$ 89.54 (2012: US\$ 94.12) per barrel. For 2014, EIA predicts a price of US\$ 91.00 per barrel. As before, oil prices are subject to high volatility and may be influenced by unpredictable factors such as political conflicts and natural disasters.

### THE FUTURE SOLAR POWER MARKET

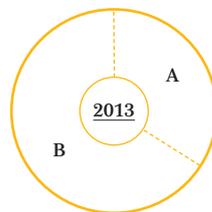
**EXPECTED DEVELOPMENT OF THE SOLAR POWER MARKET.** Solar power is becoming competitive in more and more countries. Therefore, the focus of investment is increasingly shifting to markets where photovoltaics can compete with conventional electricity prices even without government incentives. According to estimates by Deutsche Bank, the turning point in this development will be reached in 2013. Analysts expect a further overall increase in demand in 2013. However, this increase cannot be sufficient to achieve a balance between demand and continuing oversupply. Sarasin Bank expects global growth of 12 percent in newly installed capacity to 37 (2012: 33) GW. Forecasts for 2014 see the global market increase by 22 percent to 45 GW.

66 **PROPORTION OF MARKETS NOT DEPENDENT ON SUBSIDIES IN THE GLOBAL SOLAR MARKET // IN PERCENT**

Source: Deutsche Bank, 2013



A // subsidy dependent ..... 69 %  
 B // subsidy independent . 31 %



A // subsidy dependent ..... 34 %  
 B // subsidy independent. 66 %

The consolidation process looks likely to continue in 2013. Analysts do not expect the market to stabilize until the second half-year, although this forecast is based on a lot of uncertain factors and is strongly dependent on regulatory conditions. Even if the price level does stabilize, manufacturers' margins will likely remain under pressure – until the market shakeout is completed. This process could take some time if Chinese banks continue to provide domestic manufacturers with cheap loans worth billions of dollars, distorting global competition.

**EUROPEAN SOLAR MARKETS BELOW PREVIOUS YEAR'S LEVEL.** The European market is expected to shrink significantly in 2013. Regulatory incentives for installing solar power were cut back sharply in 2012, and this is likely to dampen demand. Newly installed capacity is expected to fall by 12 percent to 15 (2012: 17) GW in 2013. The same level of around 15 GW of new installations is expected in 2014.

Germany in particular – until now the growth engine of the European solar market – will contribute to this downward trend. Stricter controls on the construction of large solar farms are expected to slow down new installations in Germany – a trend that could already be seen in the last two months of 2012. [Ⓢ New solar power installations in Germany • p. 052](#)// In contrast, the market for smaller roof-mounted systems with less than 10 kW should remain stable with new additions of 0.6 to 0.8 GW. This segment is likely to benefit from a program to promote electricity storage systems, which was announced in January 2013. Rising energy prices could be an additional incentive for the installation of rooftop systems, as solar power systems are increasingly used to reduce electricity costs and household bills. SOLARWORLD intends to position itself more strongly in this market segment, offering its customers “post-EEG” solutions. According to Sarasin, newly installed capacity of around 5.2 (2012: 7.6) GW is expected overall in the German solar market in 2013. In 2014, new additions are likely to fall further to 4.8 GW.

In Italy, too, the solar market is expected to contract in 2013. According to Deutsche Bank, demand will fall by more than half to 1.5 (2012: 3.2) GW in 2013. Nevertheless, the Italian market remains attractive due to rising electricity prices and strong solar radiation. Hence, especially in the second half-year, analysts expect an increase in subsidy-independent demand for solar power.

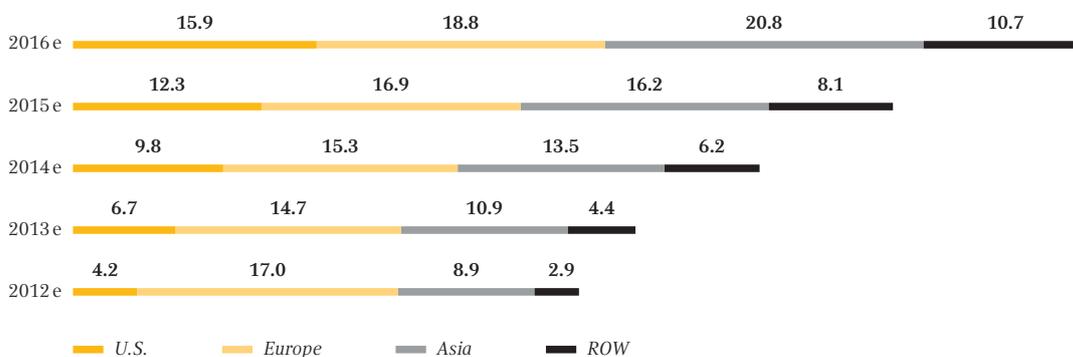
**U.S. SOLAR MARKET CONTINUES GROWTH.** According to expert opinion, a large proportion of growth in the 2013 global solar market will take place in the United States. Newly installed capacity is set to increase by around 50 percent to 5.3 (2012: 3.6) GW. In 2014, estimates suggest, the market will grow to 7.8 GW. Increasing numbers of U.S. states are developing into promising new sales regions, with the result that growth is not concentrated on just a few states such as California and New Jersey. Hence, the market as a whole is growing more consistently and sustainably. Despite this, 2013 will be another year marked by fierce price wars.

**SOLAR MARKET IN EMERGING ECONOMIES AND OIL EXPORTING COUNTRIES GAINING IMPORTANCE.** In sunny, off-grid regions of Africa, Latin America and Asia, solar power is already more economical than electricity from conventional diesel generators. In these countries, where energy scarcity is a key challenge and power grids are insufficiently developed, solar power is increasingly developing as a low-cost alternative for the electricity supply. Analysts therefore expect a strong increase in demand for solar power systems in these regions over the next two fiscal years. In India, they anticipate new installations of around 1.5 (2012: 1.3) GW in 2013. The Chinese market is expected to grow massively, too. The Chinese government has set the target to reach a total capacity of about 40 GW by 2015 in order to support sales of Chinese solar companies. For non-Chinese-companies, this market will remain difficult to penetrate. By contrast, the solar market in the Middle East region offers new opportunities for Western companies as well. Oil-exporting countries such as Saudi Arabia and Qatar want to increase their use of solar in future as a power source. Analysts expect that solar power systems having a total capacity of 3.5 GW will be installed in Saudi Arabia alone by the year 2015. In this region, the Turkish solar market is expected to see rapid growth, too.

In Latin America, newly installed capacity is set to reach around 1 GW in 2013. Mexico, Chile and Brazil in particular, according to expert opinion, will achieve annual growth rates of around 45 percent to the year 2017, together accounting for 70 percent of the Latin American market.

#### 67 EXPECTED DEVELOPMENT OF SOLAR MARKETS BY REGION // IN GW

Source: Sarasin Bank, 2012



## FUTURE STRATEGIC ALIGNMENT OF THE GROUP

Over the next two fiscal years, the SOLARWORLD group plans to continue the systematic implementation of its restructuring concept. In our established markets Germany and the United States, we will strengthen ties between customers and wholesalers and installers.

We want to expand our position as a system provider in the international solar market. In future, we will focus more strongly on the market for complete systems and less on sales of individual components such as wafers. Through our planned process and product innovations, we intend to optimize the price-performance ratio of SOLARWORLD systems for our customers. Here, we utilize the advantages of close-to-production research and development to swiftly transfer newly developed processes into manufacturing. (→) Future research and development activities 2013+ // “Other” segment • p. 128//

Our location policy will continue to be geared to customer proximity. We will flexibly adjust the capacity utilization of our production facilities in line with current market demand. (→) Flexible use of production capacities • p. 127// In future, projects of all sizes will play a larger role in our business. To this end, we are systematically leveraging the experience of our subsidiaries SOLARPARC AG in Europe and SOLARWORLD AMERICAS LLC throughout the American continent.

## EXPECTED BUSINESS TREND 2013+

### FUTURE SALES MARKETS 2013+ // “TRADE” SEGMENT

**VERY DIFFICULT FISCAL YEAR EXPECTED.** Following the crisis year of 2012, looking to 2013 we are expecting another tough year with many uncertainties. One factor on which price development in Germany and within Europe depends is the outcome of the trade complaint filed with the European Commission. In the United States, since the decision in November 2012, we see signs of a return to fair competition, but here too we anticipate a tough competitive struggle. All in all, there are great opportunities in the international solar markets, which we want to exploit with our strong brand, our product innovations and the right sales channels.

**UTILIZE STRENGTH IN THE ROOF-MOUNTED SYSTEMS SEGMENT.** The German solar market as a whole is likely to decline sharply in 2013, especially in the ground-mounted segment. Despite this, we are planning to keep our shipments at the previous year’s level by using our strength as a provider of roof-mounted systems. We see our main growth potential in commercial roof-mounted systems. Self-consumption

and self-sufficiency will become increasingly appealing in 2013 both for commercial plant operators and for private homeowners, particularly once government incentives for the use of solar power storage systems are supposed to be introduced in 2013. Our SUNPAC 2.0 product will be an extremely competitive solution for this purpose.

**TARGET SALES FOR SELF-CONSUMPTION.** The transformation from an EEG-driven investment project into a self-sufficient energy supply has far-reaching consequences for our sales efforts. Previously, our customers installed systems with the greatest possible output and maximum yields to achieve the highest possible financial return. But future customers who want a solar power system that covers the highest possible percentage of their own energy consumption will install capacity to cover their needs. Systems will tend to be smaller as a result. Planning and installation costs are no lower for smaller systems, however, meaning that allowances have to be made for the greater overall expense in order to sell the same watt-peak volume in the market.

In light of this, we will continue to expand our three-level distribution system, which supports wholesalers and installers as intermediaries to reach end customers. Wholesaler partners, who already have logistics and warehouse structures in place and who are broadly positioned, enable us to reduce transaction costs. We will take further steps to secure greater involvement on the part of installers than previously. We will create additional new incentive systems for wholesalers and installers to sell SOLARWORLD brand products.

**EXPAND BUSINESS IN THE UNITED STATES.** In the United States, we want to go beyond the commercial sector and also increase business with private homeowners. To achieve this, we are actively seeking to partner with businesses offering financial solutions to private households, because for U.S. customers, financing is a key criterion when purchasing a solar power system. SOLARWORLD will be able to communicate a clear value proposition to its customers with the high performance classes of its modules and the new glass-glass design. Our products generate higher yields on a long-term basis than competitors' modules. This has a major influence on electricity production costs. These costs, in turn, are a decisive factor in the choice of modules for utility companies operating large ground-mounted systems.

**STRENGTHEN POSITION IN THE PROJECT BUSINESS.** Using the expertise of our subsidiaries, we want to substantially expand our project business in 2013 – particularly in the U.S. and selected export markets, for example in Latin America, Turkey and on the Arabian Peninsula, i. e. in regions where solar power is cost-effective today without incentive mechanisms. We will work together with local partners to expand the project business.

**OPEN UP AND DEVELOP INTERNATIONAL MARKETS.** In 2013, SOLARWORLD will continue to work on developing emerging solar markets. In particular, we want to increase our shipments in European export markets. Promising markets for us also lie in the Middle East. In Asia, we have high expectations about development in the Japanese market. In Africa, we see opportunities in the market for large roof-mounted systems used for self-consumption even without storage systems.

## FUTURE DEVELOPMENT IN PRODUCTION

**FLEXIBLE USE OF PRODUCTION CAPACITIES.** The group will continue to manufacture in-house along the entire production chain so that it can guarantee the comprehensive quality promise of the SOLARWORLD brand and leverage innovation potentials at all stages of the value chain. We want to align our production volumes very closely with market demand in 2013 – not least to minimize risks. The modular design of our production lines lets us carry out this kind of flexible adaptation without reducing nominal capacities. (23) *Groupwide nominal capacities as at end 2012 • p. 064*// Thus, in 2013, we will also retain existing production facilities in the full extent so that we can bring them back on line quickly as soon as demand increases.

At the start of 2013, we geared our worldwide production along the value chain to a basic capacity utilization of around 600 MW. We have adjusted our workforce in line with these volumes. In Freiberg, for example, in the first quarter of 2013 we implemented reduced working hours. This enables us to cushion the impact of temporary demand weakness and, at the same time, retain our well-trained core workforce. We need their specialist knowledge to transfer innovations that are developed in-house into production. If demand picks up significantly, we will initially use temporary staff so that we retain the necessary staffing flexibility.

**RAPIDLY IMPLEMENT INNOVATIONS.** Our production units have a central task to perform in 2013: to implement planned innovations as quickly as possible. In the summer of 2013, we will start producing monocrystalline wafers using our new crystallization process. In some sections of our cell production, we will implement narrow conductor strips. Selective emitters are to be used on polycrystalline cells also. This summer, we also plan to launch our glass-glass modules. We began making necessary modifications to machinery in the first quarter. (24) *Innovation report • p. 065*//

## FUTURE RESEARCH AND DEVELOPMENT ACTIVITIES 2013+// “OTHER” SEGMENT

Our future research and development activities will focus on further improvements to our core product, the module, in respect of performance, quality and cost criteria. We will also continue to work intensively on intelligent load management and storage solutions.

We will further improve our internal innovation process so that we can offer market-oriented new products more quickly than before. To help us achieve this, at the start of 2013, we created an important interface between sales, research and development, and production, by launching the additional Global Product Management department.

## FUTURE PRODUCTS AND BRAND STRATEGY

Building on our strong market position in Germany, in 2013+ we will increasingly concentrate our resources on the development and expansion of our brand in our target markets and on supporting our international sales. The focus here is on communicating the value of the SOLARWORLD brand to potential customers. We aim to transfer our customers’ needs directly into the development of our products, thus further increasing the individual benefit for our customers. This is why we also plan to focus on identifying requirements by means of market analyses and customer surveys, and then implement these requirements in our custom applications.

## FUTURE PROCUREMENT

We expect that we will be able to cover our needs for materials and services in 2013 as well. The aim of our global procurement management system is to make further significant reductions in our Bill of materials. We see scope for further cost reductions, but to a lesser extent than in the period under review, in which we were particularly far-reaching in realizing our potential through renegotiations.

Further savings will result from increased design to cost measures, global sourcing, standardization, and further optimization of our specifications. In future, therefore, global procurement management at SOLARWORLD must collaborate even more closely with product management and with research and development to identify better performing and cost-saving alternatives for materials. ☞ Innovation process follows science2customer principle • p. 065// We will involve our suppliers in new developments at an even earlier stage. This way, we can take material costs and properties into account and ensure at the very beginning of the product life cycle that we can offer products at competitive prices.

As before, we are aiming to reach further agreements with our suppliers to enable our materials to be supplied in line with our requirements on a long-term basis, and reduce our default risks. Sustainability remains important to us in every respect on the procurement side also.

## HUMAN RESOURCES – FUTURE DEVELOPMENT

Aligning our group as a global organizational unit which adapts to changed market conditions continues to be a central goal of our human resources strategy for 2013+. Thus, we will continue to work on the effective merger and organization of departments across different locations to enhance the group's international competitiveness.

In view of the upcoming change processes, we will assist our executives in preparing their employees for the new requirements and offering them constructive support, especially in particularly challenging phases. The forthcoming changes in our structures and processes should be explained to all employees so that they can take an active involvement in changes in their departments. Our employees' experience and motivation are key for the success of the planned new developments. Hence, with regard to the future, we intend to work on reinforcing our corporate culture as a common basis for our locations to grow together, and develop additional areas for action based on our existing guiding principles. We will continue our talent management program in 2013+ to prepare talented junior staff who represent and live our values for regional and global management positions.

We must continue to respond to market developments – also in the short term. Therefore, in human resources, we reserve to ourselves the possibility to implement various measures such as reduced working hours, flexitime accounts, and, as a final resort, also further layoffs.

## EXPECTED EARNINGS AND FINANCIAL POSITION

### EXPECTED REVENUE AND EARNINGS DEVELOPMENT

The continuing crisis affecting the entire solar industry makes it difficult to predict future business trends. We aim to increase shipments of modules and kits in 2013 compared to the previous year (2012: 567 MW). At the present time, it is not possible to rule out further price reductions for solar products. But because we intend to increase the sales share of systems of all sizes, we are expecting revenue in 2013 to exceed the previous year's level (2012: € 606 million). However, current plans assume negative operating result for the year. The group expects that the solar industry will reach the final phase of the consolidation process in 2014. SOLARWORLD should be among the remaining manufacturers with good business prospects in this industry of the future.

In this context, we expressly wish to point out that the assumptions and conditions on which the forecast is based could change over the course of fiscal year 2013. The going concern prognosis is inseparably linked to the successful agreement and implementation of our financial restructuring concept. Because it requires the agreement of several groups of creditors, this is complex and entails not inconsiderable risks. Nevertheless, the Management Board currently assumes that it is more likely than not that the necessary financial restructuring forming part of the concept, and the necessary operational measures, will be implemented. The forecast produced here, and statements concerning the expected earnings and financial position, are based on the premise of successful implementation of the financial restructuring and an associated positive going concern prognosis for the SOLARWORLD group.

### EXPECTED DIVIDEND AND DISTRIBUTION

Due to the losses in the business year 2012, a dividend distribution is not possible. The future development of dividend distribution will largely depend on the earning situation of the coming financial years.

### SCHEDULED FINANCING MEASURES

The Management Board of SOLARWORLD AG, in consultation with the Supervisory Board, had the group's business planning reviewed by an external expert. Based on this, the Management Board considers that serious reductions in the company's liabilities are necessary, particularly with regard to issued corporate bonds and assignable loans (Schuldscheindarlehen). The Management Board is cur-

rently working on an extensive restructuring concept which puts an exact figure on the necessary cuts. After the announcement of the need for financial restructuring in an ad-hoc release on January 24, 2013, the Management Board entered into negotiations with representatives of the parties concerned regarding a financial restructuring concept.

As part of this restructuring, external liabilities are to be adjusted in line with the company's earnings power. In other words, the aim is to negotiate an arrangement whereby the company's liabilities do not exceed a level at which the company can pay interest and capital repayments out of its operating income in the long term, and furthermore is able to generate income so that it also achieves a return on its equity. The exact form that this restructuring will take has not been decided yet. Accordingly, at the present time, it has also not been established whether, as part of the restructuring, new agreements concerning the allocation of borrowed capital or equity, for example in the form of a capital increase by cash contribution or contribution in kind or a debt-to-equity swap, will be concluded or desired.

In so far as the restructuring concept involves amendments or additions to the bond terms and conditions, SOLARWORLD AG will immediately call a meeting of the bondholders of the respective bond. As at the publication date of this report, an exact timing for the creditors' meeting had not been decided. More specific information about the planned financial restructuring will be communicated to the capital market without delay, e. g. by way of an ad-hoc notification pursuant to § 15 WpHG.

## **PLANNED INVESTMENTS**

In fiscal year 2013, our investment activity will focus on transferring our research and development results into production to achieve cost savings and generate benefits for our customers. Investment for 2013 is set to total roughly € 40 million.

## **EXPECTED LIQUIDITY DEVELOPMENT**

On December 31, 2012, liquid assets totaled € 224.1 (December 31, 2011: € 553.3) million. It is expected that liquidity development in fiscal year 2013 will be influenced mainly by the outcomes of the negotiations in connection with our financial restructuring, and by the operating result. Currently, we are expecting a negative cash flow.

## OVERALL STATEMENT BY THE MANAGEMENT BOARD ON FUTURE GROUP DEVELOPMENT

The restoration of fair competition in the international solar markets is one important condition for the SOLARWORLD group's further business development, as it provides a reliable investment basis and planning security. With regard to the company, the introduction of our new technological methods in production and associated market launch of higher-performance products will also be key to the future development of business and the company's success. From the financial point of view, successful conclusion of the planned negotiations with the company's bondholders and creditors of assignable loans as part of our financial restructuring as well as the possible involvement of our shareholders is a fundamental requirement for a positive going concern prognosis.

The Management Board considers the possibility more likely than not that these measures will be successfully implemented. The group with its business model will then have good chances of surviving the consolidation of the solar industry and emerging from the crisis stronger by 2015. The SOLARWORLD group believes in customer focus, innovative system solutions of all sizes, a good price-performance ratio and a strong brand. SOLARWORLD should be the number one choice for quality-conscious customers everywhere in the world. For this reason, the group is pursuing the further internationalization of its business.



## CHAPTER #5

# CORPORATE GOVERNANCE

4 / 6

— SOLARWORLD CREATES ADDED VALUE —

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*WE*

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OFFER PROFESSIONAL  
**PLANNING**

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Our customers receive the full package when they purchase a solar power system from SolarWorld: from professional planning for the specific requirements of their roof and installation to decades of operation. We maintain a two-way partnership with our installers. We keep them up-to-date by offering training and conduct a professional dialog on planning, installation, and maintenance.



# 5 / CORPORATE GOVERNANCE

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# CORPORATE GOVERNANCE DECLARATION

The management and control of SOLARWORLD AG are aligned to the recommendations of the German Corporate Governance Code. The following report provides the relevant transparency for the stakeholders of the corporation. Both the present composition of the Management and Supervisory Board as well as their respective responsibilities and remuneration are disclosed here in detail. Neither the Management Board nor the Supervisory Board received variable remuneration in the 2012 fiscal year. Moreover, the Corporate Governance Report provides information about the objectives achieved by our management in 2012 and those set for the future.

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## CORPORATE GOVERNANCE AT SOLARWORLD

We are endeavoring to gear the management and control of SOLARWORLD towards long-term, sustainable value creation, especially against the background of a young and dynamic global market and its current distortions. We are continuously working on further developing Corporate Governance within the company as well as on adequately integrating all stakeholders.  [Sustainability in detail](#) // In the process, we are guided by the German Corporate Governance Code (GCGC), which represents the major provisions on the management and monitoring of German listed companies and contains both nationally and internationally recognized standards for good and responsible corporate management. Therefore, pursuant to section 4.1.1 GCGC, our management philosophy takes into consideration the interests of our investors, business partners, employees and the public in order to continuously confirm the trust placed in us by our stakeholder groups.

The Management Board and the Supervisory Board of SOLARWORLD AG cooperate closely and confidently to successfully guarantee corporate management and control.

## CORPORATE GOVERNANCE REPORT 2012

**DECLARATION OF COMPLIANCE BY MANAGEMENT BOARD AND SUPERVISORY BOARD.** The Management Board and the Supervisory Board of SOLARWORLD AG issued a Declaration of Compliance in the year under review. This was absolutely in line with the recommendations of the GCGC of May 15, 2012 as published on June 15, 2012. Pursuant to § 161 German Stock Corporation Act (Aktiengesetz, AktG), this declaration has been made permanently available on our website. In March 2013, the Supervisory Board and the Management Board of SOLARWORLD AG issued an amendment to the declaration. @ [www.solarworld.de/declarationofcompliance//](http://www.solarworld.de/declarationofcompliance//)

**MANAGEMENT AND CONTROL UNCHANGED IN 2012.** SOLARWORLD AG as a German stock corporation has a dual management and control structure with segregation between management and monitoring function. Compliant with the law (§§ 77, 78 AktG), the Articles of Association (§§ 5, 6) and the Rules of Procedure, the Management Board manages the company under its own responsibility and develops the strategic direction. The Management Board is appointed by the Supervisory Board. The latter, pursuant to § 95 Sec. 1, § 96 Sec. 1, § 101 Sec. 1 AktG, is made up of shareholder representatives and is appointed by the Annual General Meeting (AGM), which in turn, is not bound by election proposals. The Supervisory Board works on the legal basis of the German Stock Corporation Act, the Articles of Association, and the Rules of Procedure. It appoints, monitors, and controls the Management Board regarding fundamental decisions, which require the approval of the Supervisory Board. → [The Management Board](#) • p. 024// [The Supervisory Board](#) • p. 146//

Insofar as section 4.1.5 GCGC states that the Management Board, when staffing management functions in the company, has to observe the principle of diversity and must particularly strive to give more consideration to women, concrete plans to increase the proportion of women in management and key positions are pursued jointly by the Management Board and Supervisory Board.

The Management Board consisted of five members in the year under review. Distribution of business was adjusted groupwide in line with global requirements. Responsibilities were distributed as follows:

- **Dr.-Ing. E. h. Frank Asbeck** (Chief Executive Officer)  
 Founder of the company, responsible for strategic group development, group procurement as well as PR, including energy and environmental lobbying as well as corporate communications  
 Initial appointment: 1999  
 End of current period of office: January 9, 2014

- **Frank Henn, Dipl.-Wirtschaftsing.** (Chief Sales Officer)  
Responsible for the coordination of national and international sales  
Initial appointment: 2004  
End of current period of office: January 31, 2016
- **Boris Klebensberger, Dipl.-Ing.** (Chief Operating Officer)  
Responsible for the group divisions IT, supply chain management, group procurement, quality management, investment management/technology transfer, production planning as well as research and development  
Initial appointment: 2001  
End of current period of office: February 7, 2013 (→ Reorganization of Management Board departments at SolarWorld AG • p. 094//
- **Philipp Koecke, Dipl.-Kfm. tech.** (Chief Financial Officer)  
Responsible for the departments controlling, finance, accounting, and investor relations  
Initial appointment: 2003  
End of current period of office: April 30, 2015
- **Colette Rückert-Hennen, attorney-at-law** (Chief Human Resources and Brand Officer)  
Responsible for the areas of human resources, group communication/brand management, marketing and sustainability management  
Initial appointment: 2011  
End of current period of office: June 30, 2014

The composition of the Supervisory Board remained unchanged in the year under review and continues to consist of three members: (→ The Supervisory Board • p. 146//

- **Dr. Claus Recktenwald**, 54 (Chairman of the Supervisory Board)
- **Dr. Georg Gansen**, 53 (Deputy Chairman of the Supervisory Board)
- **Dr. Alexander von Bossel**, 47 (Member of the Supervisory Board)

Taking into consideration the two appointments of the Chairman of the Supervisory Board that count double, Dr. Recktenwald held seven mandates – out of a permissible total of ten mandates (since the registration of the squeeze-out on July 5, 2012, the position of the Supervisory Board Chairman at SOLARPARC AG has increased the permissible total number of mandates to twelve, § 100 Sec. 2 sentence 2 AktG). Dr. Gansen held two mandates, and Dr. von Bossel, since his retirement from the Supervisory Board of SOLARPARC AG on May 23, 2012, is only a member of the Supervisory Board of SOLARWORLD AG. The recommendations under section 5.3 GCGC on the formation of committees do not apply to SOLARWORLD AG due to the fact that the Supervisory Board still consists of only three members and performs all tasks in plenary session. The Supervisory Board in its entirety deals with Man-

agement Board issues, including the remuneration system, and performs the required audit and monitoring functions. In this context, the ruling on the capping of management remuneration pursuant to section 4.2.3 is also observed. The age limits to be stipulated pursuant to sections 5.1.2 and 5.4.1 GCGC for the Management Board and Supervisory Board of SOLARWORLD AG are 68 years.

**TRANSPARENCY FOR OUR SHAREHOLDERS AND THE PUBLIC.** To meet our legal obligations, we publish all relevant information transparently and promptly via the relevant media channels in line with the principle of fair disclosure. On our website @ [www.solarworld.de/en/investorrelations//](http://www.solarworld.de/en/investorrelations//), this information is provided in its most recent version in both German and English pursuant to section 6.8 GCGC.

At the AGM, our shareholders can exercise their rights and cast votes. All relevant information concerning the AGM can be found on our webpage well ahead of time.

If shareholders are prevented from attending the AGM personally, it is possible to have a voting right exercised through a personally selected, duly authorized representative or through an accountable proxy appointed by the company. This proxy will also be accessible to our shareholders during the AGM. Pursuant to sections 2.3.1 and 2.3.3 GCGC, the company gives the shareholders the opportunity of casting their votes by postal vote.

**CAPITAL MARKET LAW AND COMPLIANCE.** Observing capital market laws and reporting obligations is an important function of the Management Board of SOLARWORLD AG. The Board is advised in this capacity by an external legal clearing office that checks groupwide facts and transactions with respect to their ad-hoc relevance. Management Board members, employees, as well as service providers and project participants are specially trained regarding the ban on insider trading pursuant to § 14 German Securities Trading Act (Wertpapierhandelsgesetz, WpHG), and are registered in a special insider list.

There were no voting right announcements in the year under review. After SOLARWORLD AG's share in the voting rights of SOLARPARC AG was above 95 percent since February 2012, the AGM of SOLARPARC AG passed a resolution on May 23, 2012 to transfer the shares of the remaining shareholders of SOLARPARC AG to SOLARWORLD AG against payment of an appropriate cash compensation of € 8.59 per share. This resolution was entered on July 5, 2012 in the Commercial Register of the Bonn Local Court, which constituted consummation of the "squeeze-out". Pursuant to section 6.6 GCGC, the Corporate Governance Report must include information about the ownership of shares in the company or related financial instruments by Management Board and Supervisory Board members, if these directly or indirectly exceed 1 percent of the shares issued by the company. If the entire holdings of all members of the Management Board and Supervisory Board exceed 1 percent of the shares issued by the company, these shall be reported separately by Management Board and Supervisory Board. Share ownership of the members of the Management Board of SOLARWORLD AG amounted to a total of 27.84 percent as at December 31, 2012. Share ownership of the members of the Supervisory Board of SOLARWORLD AG amounted to 0.0045 percent as at December 31, 2012. Pursuant to § 15a WpHG, members

of the Management Board and of the Supervisory Board as well as persons close to them are obliged by law to disclose the acquisition and disposal of shares of SOLARWORLD AG or of financial instruments based on them, if the value of the transactions exceeds the total sum of € 5,000 within one calendar year. There was one announcement pursuant to § 15a WpHG (Directors' Dealing) in the year under review: Eifelstrom GmbH, a company related to the Chief Executive Officer, Dr.-Ing. E.h. Frank Asbeck, acquired 45,000 shares in SOLARWORLD AG on June 6, 2012. The relevant announcement was made public on the website of SOLARWORLD AG. @ [www.solarworld.de/en/investor-relations/news-announcements/directors-dealings//](http://www.solarworld.de/en/investor-relations/news-announcements/directors-dealings//)

In order to promote a culture of integrity within the entire group in the sense of good Corporate Governance, the groupwide Compliance Management System was expanded comprehensively in the year under review. → [Corporate management and control](#) • p. 043//

## REMUNERATION REPORT

With the Remuneration Report, the Supervisory Board and the Management Board of SOLARWORLD AG also comply with the German Corporate Governance Code (GCGC) in its most recent version of May 15, 2012. While section 3.10 GCGC makes provision for the Corporate Governance Report, which is contained separately in this annual report under an appropriate headline, and apart from that is also covered in the Report by the Supervisory Board, section 4.2.5 GCGC stipulates the explanation of the remuneration system for members of the Management Board, including the disclosure of individual remuneration. Section 5.4.6 GCGC – also as part of the notes or the Management Report – requires individualized reporting of Supervisory Board remuneration subdivided according to components, and including compensation paid or advantages extended for services provided individually, in particular, advisory or agency services.

**MANAGEMENT BOARD REMUNERATION.** The annual Management Board remuneration fixed in terms of its structure by the Supervisory Board and agreed with all Management Board members of SOLARWORLD AG is composed of fixed and variable compensation components. It is guided by § 87 AktG, according to which the total remuneration for an individual Management Board member must be in appropriate relation to his/her tasks and the situation of the company. Where the Act on the Appropriateness of Management Board Remuneration (Gesetz zur Angemessenheit der Vorstandsvergütung, VorstAG), passed by the Bundestag on June 18, 2009, also provides for medium- and long-term remuneration components, these were taken into consideration in new management contracts and in the extension of expiring contracts. Only the management contract with Dr.-Ing. E. h. Frank Asbeck, which will end on January 9, 2014, is to be adjusted and will be updated accordingly, if necessary. Management Board

remuneration now already meets all appropriateness limits as well as the recommendations of the GCGC; account is taken of the special conditions of the company in the context of the group as well as the individual connection in the personal and professional field, taking into consideration the relevant environmental conditions. In this context, the financial situation of the SOLARWORLD group is also considered. This in turn is reflected in the dividend distribution possibilities that form the basis for the variable Management Board compensation. In the year under review, there was no variable component and, in addition, the Chief Executive Officer waived receiving his fixed remuneration as of July 2012.

Ultimately, the management remuneration also complies in all other respects with the requirements of the VorstAG. Both the individual performance of board members and the customariness in the industry are taken into account, as well as its orientation towards a sustainable corporate development. The deductible for members of the Management Board of at least ten percent of the losses in question and up to at least one and a half times the fixed annual compensation was already agreed upon with respect to D&O insurance as of January 1, 2010. Incidentally, Management Board remuneration at SOLARWORLD AG was already determined according to these principles before the VorstAG came into force.

As fringe benefits, all members of the Management Board receive the costs respecting their accident and D&O insurance, as well as a company car in the upper medium range for their own use. Furthermore, business-related payments, expenditure and expenses are reimbursed pursuant to § 670 German Civil Code (Bürgerliches Gesetzbuch, BGB). In addition, the board members in charge of finance (CFO), operations (COO), sales (CSO), and human resources and brand (CHRBO) receive grants towards their health insurance. Since the full consolidation of SOLARPARC AG in the year under review, the CEO's remuneration as Chief Executive Officer of SOLARPARC AG must also be taken into account. The relevant amounts are shown in the following table.

Management contracts do not contain any severance provision for the case of premature termination of an employment relationship.

There is no separate pension entitlement, which is why Management Board members are permitted to convert parts of their remuneration into pension provisions.

The fixed annual compensation is to be paid to the Management Board members in twelve monthly installments at the end of each month. In addition, insofar as the requirements are met, every Management Board member receives variable, performance-related special compensation that amounts to an individually negotiated euro amount per eurocent and share of the dividend distributed to shareholders. The amount is paid within four weeks of the AGM during which the dividend payment to be used as a basis has been decided upon. In the following individualized statement of Management Board remuneration, only variable compensation for the 2011 fiscal year is shown, while no variable

compensation is paid for the current fiscal year. Otherwise, variable compensation is capped in such a way that, per year, a member of the Management Board cannot receive more than a multiple of the fixed compensation that has been agreed with the Supervisory Board. The sustainability component, stipulated by section 4.2.3 GCGC and § 87 Sec. 1, sentence 3 AktG for variable compensation of the Management Board, is complied with as follows with regard to an assessment basis of several years: Initially, only 75 percent of the bonus for the last fiscal year is paid out. Then, based on a three-year assessment, an average value is determined. If this is below the initial payment of 75 percent, no additional amounts are paid. If this value is higher, a relevant back payment is made.

In accordance with a resolution of the AGM in 2009, the total management compensation per member of the Management Board is capped to 20 times the average employee remuneration. On May 20, 2010, the AGM also declared the approval of the system of remuneration for members of the Management Board pursuant to § 120 Sec. 4 AktG. The Chairman of the Supervisory Board outlined the salient points of the compensation system and any changes thereto at the subsequent Annual General Meetings (section 4.2.3 (last paragraph) GCGC).

#### 68 MANAGEMENT BOARD REMUNERATION // IN €

	Non-performance related		Performance-related	Total
	Fixed salary	Other remuneration	Variabel	
<b>Dr.-Ing. E. h. Frank Asbeck</b> Chief Executive Officer	157,500.00 10,843.32 (company car private use)	254,054.04 (CEO remuneration SOLARPARC AG incl. fixed portion: 120,000.00; variable portion: 120,000.00; company car private use: 14,054.04) 1,322.00 (SOLARWORLD INNOVATIONS GMBH inventor's fees)	0.00	<b>168,343.32*</b> *waiving of remuneration since July 2012 <b>255,376.04</b>
Prior year	270,000.00 10,843.32 (company car private use)	165,862.88 (CEO remuneration SOLARPARC AG incl. fixed portion: 120,000.00; variable portion: 31,808.84; company car private use: 14,054.04) 890.41 (DEUTSCHE SOLAR AG Supervisory Board compensation until January 13, 2011 incl. meeting attendance fee of 0.00) 534.25 (SUNICON AG Supervisory Board compen- sation until January 13, 2011 incl. meeting attendance fee of 0.00) 1,322.00 (SOLARWORLD INNOVATIONS GMBH inventor's fees)	720,000.00	1,000,843.32 168,609.54

	Non-performance related		Performance-related	Total
	Fixed salary	Other remuneration	Variabel	
<b>Frank Henn</b> Chief Sales Officer	186,751.88 11,905.20 (company car private use)	3,686.52 (Grants towards health insurance)	0.00	<b>202,343.60</b>
Prior year	186,751.88 11,905.20 (company car private use)	3,686.52 (Grants towards health insurance)	144,000.00	346,343.60
<b>Boris Klebensberger</b> Chief Operating Officer	376,743.23 25,159.20 (company car private use)	3,351.72 (Grants towards health insurance) 1,219.00 (SOLARWORLD INNOVATIONS GMBH inventor's fees)	0.00	<b>406,473.15</b>
Prior year	285,770.98 25,159.20 (company car private use)	50,000.00 (Cost assumption U.S. tax law issues) 2,916.00 (Grants towards health insurance) 1,219.00 (SOLARWORLD INNOVATIONS GMBH inventor's fees)	290,500.00	655,565.18
<b>Philipp Koecke</b> Chief Financial Officer	260,565.32 25,028.11 (company car private use)	3,468.54 (Grants towards health insurance)	0.00	<b>289,061.97</b>
Prior year	162,232.00 19,437.98 (company car private use)	3,080.40 (Grants towards health insurance)	144,000.00	328,750.38
<b>Colette Rückert-Hennen</b> Chief Information, Brand & Personnel Officer	240,000.00 8,157.00 (company car private use)	3,546.36 (Grants towards health insurance)	0.00	<b>251,703.36</b>
Prior year (from 07/11)	120,000.00 4,119.24 (company car private use)	1,723.86 (Grants towards health insurance)	27,000.00	152,843.10
<b>Total</b>	<b>1,302,653.26</b>	<b>270,648.18</b>	<b>0.00</b>	<b>1,573,301.44</b>
<b>Prior year</b>	<b>1,096,219.80</b>	<b>231,235.32</b>	<b>1,325,500.00</b>	<b>2,652,955.12</b>

**SUPERVISORY BOARD REMUNERATION.** The AGM on May 24, 2011 modified the Supervisory Board remuneration, which was approved earlier at the AGM of May 25, 2005. It still consists of fixed remuneration, performance-related special remuneration, fringe benefits and reimbursement of out-of-pocket expenses. Current Supervisory Board remuneration has been applicable since January 1, 2011 and also applies to the following years, unless a new AGM passes different resolutions for the future. Fixed remuneration for a member amounts to € 35,000.00, for the Deputy Chairman to € 52,500.00 and for the Chairman to € 70,000.00. A lump sum of € 500.00 for every meeting attended is paid as reimbursement of expenses. In addition, the company pays variable remuneration in relation to a basic amount

of € 2,639.055; this basic amount is to be multiplied by each dividend cent if a dividend has been adopted. Ultimately, the company assumes the premium payments for insurance cover concerning legal liability arising from Supervisory Board activities (D&O insurance). In accordance with the GCGC, the Supervisory Board has also agreed upon the deductible that is compulsory for the Management Board pursuant to the VorstAG, effective as per July 1, 2010.

The Supervisory Board remuneration is net so that turnover tax is added if a member of the Supervisory Board is liable to pay turnover tax. Fixed annual remuneration is paid retroactively for the closed fiscal year. Variable remuneration also refers to the fiscal year ended and becomes due upon the AGM that passes the resolution on a dividend to be distributed. As regards the meeting attendance fees, 12 flat-rate fees, each of € 6,000.00 net, were charged for one AGM and 13 Supervisory Board meetings. With respect to further details, we refer to the table.

In connection with the new version of section 5.4.6 GCGC, the Supervisory Board intends to propose to the AGM that only fixed remuneration for the Supervisory Board be approved and that an additional budget for training and professional development be provided.

With regard to the disclosures recommended in the last paragraph of section 5.4.6 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, this firm provides legal advice and representation for the SOLARWORLD group through other partners and employees of the law firm as well as the required international coordination.

As far as the law firm's own service provision in the year under review 2012 is concerned, Schmitz Knoth Rechtsanwälte invoiced a total amount of € 499,558.80, excluding turnover tax and tax-free out-of-pocket expenses, for consulting services to SOLARWORLD AG. Additionally, further costs for legal proceedings amounting to € 1,774.35 were incurred, which are reimbursable. The consulting fees for the subsidiaries of SOLARWORLD AG amounted to a further € 326,438.00, of which the net amounts were attributable as follows: € 88,232.20 to SOLARPARC AG, € 190,034.00 to DEUTSCHE SOLAR GMBH, € 9,328.80 to DEUTSCHE CELL GMBH, € 631.80 to SOLAR FACTORY GMBH, € 1,285.20 to SOLARWORLD INDUSTRIES DEUTSCHLAND GMBH, € 327.60 to SOLARWORLD SOLICIUM GMBH, € 4,727.60 to SUNICON GMBH, and € 31,870.80 to SOLARWORLD INNOVATIONS GMBH. This resulted in group-related consulting fee expenses of € 825,996.80 in total. The legal representation of subsidiaries of SOLARWORLD AG resulted in a further net amount of € 422,818.20, of which € 6,784.00 was attributable to SOLARPARC AG and the residual amount of € 416,034.20 to DEUTSCHE SOLAR GMBH, mainly due to the enforcement of claims under long-term agreements. In total, statutory fees of € 424,592.55 were incurred for legal representation, which are related to reimbursement claims totaling € 384,000.95, so that an amount of only approx. € 40,000.00 without cost compensation claim has remained.

All individual items within the group amount to a total of € 1,250,589.30 (2011: € 979,892.21), of which € 501,333.15 (2011: € 572,627.70) were subject to approval by SOLARWORLD AG. All individual items and the total sum accepted by the group were discussed and approved by the Supervisory Board of SOLARWORLD AG, both during the year and at the meeting on January 24, 2013. At a meeting on February 22, 2013, they were discussed with the auditors, BDO Wirtschaftsprüfungs AG, and then together with this remuneration report approved. Commissioning was approved in each individual case, and the necessity for and appropriateness of the measures were confirmed after completion of the services. This was based on a new framework agreement, dated February 7, 2012, which also provides for the adoption of an approval resolution by the Supervisory Board prior to the relevant cost settlement and a decision in the individual case that the consulting and representation activities provided by the law firm of Schmitz Knoth Rechtsanwälte, evidenced by the cost invoices including time statements submitted, only relate to those Management Board tasks that are not part of the original area of tasks of the Supervisory Board. The Supervisory Board has convinced itself of the relevant facts so as to simultaneously confirm the proper mandate by the Management Board.

As in the previous year, the Supervisory Board remuneration from SOLARPARC AG must also be taken into account as regards the members of the Supervisory Board of SOLARWORLD AG, who are also members of the Supervisory Board of SOLARPARC AG. This is valid for Dr. von Bossel until the date of his retirement on May 23, 2012. The relevant amounts are shown in the following table.

## 69 SUPERVISORY BOARD REMUNERATION // IN €

		Non-performance related			Performance-related	Total
		Fixed annual remuneration	Meeting attendance fee	Other remuneration	Variable special remuneration	
Dr. Claus Recktenwald Chairman	For 2012 paid in 2013	70,000.00	6,000.00	32,500.00 (SOLARPARC AG Supervisory Board remuneration incl. meeting attendance fee of 2,500.00)	0.00	108,500.00
	For 2011 paid in 2012	70,000.00	5,000.00	32,000.00 (SOLARPARC AG Supervisory Board remuneration incl. meeting attendance fee of 2,000.00) 890.41 (DEUTSCHE SOLAR AG Supervisory Board remuneration until January 13, 2011) 534.25 (SUNICON AG Supervisory Board remuneration until January 13, 2011)	23,751.50	132,176.16
Dr. Georg Gansen Deputy Chairman	For 2012 paid in 2013	52,500.00	6,000.00	24,750.00 (SOLARPARC AG Supervisory Board remuneration incl. meeting attendance fee of 2,250.00)	0.00	83,250.00
	For 2011 paid in 2012	52,500.00	5,000.00	24,500.00 (SOLARPARC AG Supervisory Board remuneration incl. meeting attendance fee of 2,000.00) 890.41 (DEUTSCHE SOLAR AG Supervisory Board remuneration until January 13, 2011) 534.25 (SUNICON AG Supervisory Board remuneration until January 13, 2011)	23,751.50	107,176.16
Dr. Alexander von Bossel Member	For 2012 paid in 2013	35,000.00	6,000.00	7,126.70 (SOLARPARC AG Supervisory Board remuneration incl. meeting attendance fee of 1,250.00 until May 23, 2012)	0.00	48,126.70
	For 2011 paid in 2012	35,000.00	5,000.00	17,000.00 (SOLARPARC AG Supervisory Board remuneration incl. meeting attendance fee of 2,000.00)	23,751.50	80,751.50
Total	For 2012 paid in 2013	157,500.00	18,000.00	64,376.70	0.00	239,876.70
	For 2011 paid in 2012	157,500.00	15,000.00	76,349.32	71,254.50	320,103.82

# THE SUPERVISORY BOARD

THE REPORT OF THE SUPERVISORY BOARD WILL BE RELEASED ONCE THE ANNUAL FINANCIAL STATEMENTS AND CONSOLIDATED FINANCIAL STATEMENTS OF SOLARWORLD AG ARE ADOPTED.

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## DR. GEORG GANSEN

DEPUTY CHAIRMAN

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

Initial appointment: 18.12.1998  
End of current appointment period: until the Annual General Meeting which votes on the approval of the Supervisory Board members' actions for the 2012 financial year.

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

- Supervisory Board of SOLARPARC AG, Bonn (Deputy Chairman since incorporation)



## DR. CLAUS 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: until the Annual General Meeting which votes on the approval of the Supervisory Board members' actions for the 2012 financial year.

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

- Supervisory Board of SOLARPARC AG, Bonn (Chairman since incorporation)
- Supervisory Board of VEMAG Verlags- und Medien AG, Cologne (Member since 07.04.2006)
- Advisory Board of Grüenthal GmbH and Grüenthal GmbH & Co. KG, Aachen (Member since 01.01.2010)



## 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: until the Annual General Meeting which votes on the approval of the Supervisory Board members' actions for the 2012 financial year.

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

- Supervisory Board of SOLARPARC AG, Bonn (Member until May 23, 2013)



## CHAPTER #6

# CONSOLIDATED FINANCIAL STATEMENTS

5 / 6

— SOLARWORLD CREATES ADDED VALUE —

*WE*

ENSURE ADDITIONAL  
**SECURITY**

Professional planning and installation are the basic requirements, and a solar power system that runs smoothly is an important criterion for long-term customer satisfaction. Services offered by the SolarWorld brand range from a linear 25-year performance guarantee and free insurance on our kits to real-time yield monitoring using special software.



## 6 / CONSOLIDATED FINANCIAL STATEMENTS

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# CONSOLIDATED FINANCIAL STATEMENTS

FOR THE BUSINESS YEAR  
JANUARY 1, 2012 TO DECEMBER 31, 2012

## ⑩ INCOME STATEMENT // IN K€

	Notes	2012	2011*
1. Revenue	25, 27, 40	606,021	1,044,935
2. Change in inventories of finished goods and work in progress	13, 25, 49	-64,666	72,054
3. Own work capitalized	28	65	14,349
4. Other operating income	25, 29	153,299	260,499
5. Cost of materials	30	-534,493	-819,152
6. Personnel expenses	31	-129,648	-138,224
7. Amortization and depreciation	9, 32, 41	-276,736	-452,514
8. Other operating expenses	25, 33	-246,227	-225,805
<b>9. Operating result</b>		<b>-492,385</b>	<b>-243,858</b>
10. Result from investments measured at equity	11, 35, 45	-14,638	-937
11. Interest and similar financial income	25, 35	2,406	7,162
12. Interest payable and similar financial expenses	25, 35	-73,515	-70,821
13. Other financial result	25, 35	18,258	5,104
<b>14. Financial result</b>		<b>-67,489</b>	<b>-59,492</b>
<b>15. Result before taxes on income</b>		<b>-559,874</b>	<b>-303,350</b>
16. Taxes on income	26, 37	82,982	-5,592
<b>17. Result from continued operations</b>		<b>-476,892</b>	<b>-308,942</b>
<b>18. Result after taxes from discontinued operations</b>	36	<b>0</b>	<b>1,808</b>
<b>19. Consolidated net result</b>		<b>-476,892</b>	<b>-307,134</b>
of which attributable to:			
- Shareholders of SOLARWORLD AG		-476,892	-307,213
- Non-controlling interests		0	79
<b>20. Earnings per share</b>	38		
a) Weighted average number of shares outstanding (in 1,000)		110,795	110,613
b) Result from continued operations (in €)		-4.30	-2.79
c) Result from discontinued operations (in €)		0.00	0.02
<b>d) Consolidated net result (in €)</b>		<b>-4.30</b>	<b>-2.77</b>

\* Comparative figures were adjusted in accordance with IAS 8.22. We refer to our comments in note 1.

## ⑦1 STATEMENT OF COMPREHENSIVE INCOME // IN K€

Note 39	2012	2011*
<b>Consolidated net result</b>	<b>-476,892</b>	<b>-307,134</b>
Net result from cash flow hedges		
Losses (-) / Profits (+) of the current period	-1,103	7,790
Reclassifications to costs of non-financial assets	0	-5,210
Reclassifications to income statement	-4,568	-6,570
	<b>-5,671</b>	<b>-3,990</b>
Effects of taxes on income	1,730	1,324
	<b>-3,941</b>	<b>-2,666</b>
Currency translation of foreign operations		
Profits of the current period	-5,394	1,796
Reclassifications to income statement	0	-2,185
	<b>-5,394</b>	<b>-389</b>
Effects of taxes on income	2,331	2,511
	<b>-3,063</b>	<b>2,122</b>
<b>Other comprehensive income for the period, after taxes</b>	<b>-7,004</b>	<b>-544</b>
<b>Total comprehensive income for the period after taxes</b>	<b>-483,896</b>	<b>-307,678</b>
of which attributable to:		
- Shareholders of SOLARWORLD AG	-483,896	-307,757
- Non-controlling interests	0	79

\* Comparative figures were adjusted in accordance with IAS 8.22. We refer to our comments in note 1.

## ⑦ BALANCE SHEET AS AT DECEMBER 31, 2012 // IN K€

ASSETS	Notes	31.12.12	31.12.11*	01.01.11*
<b>A. Non-current Assets</b>		<b>642,447</b>	<b>1,068,447</b>	<b>1,364,377</b>
I. Intangible assets	7, 9, 41, 42	10,624	20,521	39,607
II. Property, plant and equipment	8, 9, 41, 43	468,151	744,681	951,856
III. Investment property	10, 41, 44	24,967	27,231	20,994
IV. Investments measured at equity	11, 45	23,368	37,842	65,481
V. Other financial assets	16, 46, 65	672	790	1,165
VI. Other non-current assets	12, 48	34,938	235,133	280,079
VII. Deferred tax assets	26, 37, 47	79,727	2,248	5,195
<b>B. Current Assets</b>		<b>689,805</b>	<b>1,167,326</b>	<b>1,231,981</b>
I. Inventories	13, 49	222,523	378,395	329,105
II. Trade receivables	14, 50, 65	55,569	123,021	140,883
III. Current income tax assets	26, 37, 51	1,054	35,472	428
IV. Other receivables and assets	15, 52	28,956	32,984	48,956
V. Other financial assets	16, 20, 53, 65	157,593	44,109	99,136
VI. Liquid funds	17, 54, 65, 66	224,109	553,345	613,473
<b>C. Assets held for sale</b>	18, 55	<b>1,313</b>	<b>0</b>	<b>0</b>
		<b>1,333,564</b>	<b>2,235,773</b>	<b>2,596,358</b>
<b>EQUITY AND LIABILITIES</b>				
<b>A. Equity</b>		<b>117,771</b>	<b>614,391</b>	<b>914,372</b>
I. Equity attributable to shareholders of SOLARWORLD AG	56	117,771	612,414	914,372
1. Subscribed capital		110,795	110,795	106,881
2. Capital reserve		296,562	296,562	296,489
3. Other reserves		10,518	17,523	18,067
4. Accumulated results		-300,104	187,533	492,935
II. Non-controlling interests		0	1,978	0
<b>B. Non-current Liabilities</b>		<b>646,664</b>	<b>1,339,274</b>	<b>1,340,349</b>
I. Non-current financial liabilities	19, 20, 57, 65	537,555	1,150,888	1,011,855
II. Accrued investment grants	21, 58	51,328	56,773	76,219
III. Non-current provisions	22, 23, 59	28,478	32,270	25,418
IV. Other non-current liabilities	24, 60	27,029	83,774	192,946
V. Deferred tax liabilities	26, 37, 61	2,274	15,568	33,911
<b>C. Current Liabilities</b>		<b>569,129</b>	<b>282,107</b>	<b>341,637</b>
I. Current financial liabilities	19, 20, 57, 65	467,226	120,981	129,776
II. Trade payables	19, 65	32,632	64,433	113,270
III. Income tax liabilities	26, 37, 62	4,757	18,159	13,797
IV. Current provisions	23, 59	19,011	13,004	8,784
V. Other current liabilities	24, 60	45,503	65,531	76,010
		<b>1,333,564</b>	<b>2,235,773</b>	<b>2,596,358</b>

\* Comparative figures were adjusted in accordance with IAS 8.22. We refer to our comments in note 1.

## ⑦③ STATEMENT OF CHANGES IN EQUITY // IN K€

Note 4, 56	Subscribed capital	Capital reserve	Other reserves		Accumulated results	Non-controlling interests	Total
			Currency translation reserve	Reserve from hedging of cash flows*			
As at Dec. 31, 2010	106,881	296,489	11,460	6,607	501,442	0	922,879
Adjustment in accordance with IAS 8.22					-8,507		-8,507
<b>As of Jan. 1, 2011 adjusted*</b>	<b>106,881</b>	<b>296,489</b>	<b>11,460</b>	<b>6,607</b>	<b>492,935</b>	<b>0</b>	<b>914,372</b>
Exchange of treasury shares into shares in SOLARPARC AG	3,914	73			24,818		28,805
Non-controlling interests from first time consolidation						7,862	7,862
Increase of the majority interest in SOLARPARC AG (transaction between owners)					-1,956	-5,963	-7,919
Dividend distribution					-21,051		-21,051
Total comprehensive income			2,122	-2,666	-307,213	79	-307,678
<b>As at Dec. 31, 2011/ Jan. 1, 2012 adjusted*</b>	<b>110,795</b>	<b>296,562</b>	<b>13,582</b>	<b>3,941</b>	<b>187,533</b>	<b>1,978</b>	<b>614,391</b>
Increase of the majority interest in SOLARPARC AG (transaction between owners)					-774	-1,978	-2,752
Dividend distribution					-9,972		-9,972
Total comprehensive income			-3,063	-3,941	-476,892	0	-483,896
<b>As at Dec. 31, 2012</b>	<b>110,795</b>	<b>296,562</b>	<b>10,518</b>	<b>0</b>	<b>-300,104</b>	<b>0</b>	<b>117,771</b>

\* Comparative figures were adjusted in accordance with IAS 8.22. We refer to our comments in note 1.

## 74 CASH FLOW STATEMENT // IN K€

Note 66	2012	2011*
Result before tax	-559,874	-301,448
+ Amortization and depreciation	276,736	452,514
+ Financial result (excluding profits and losses from currency translation)	67,026	60,079
-/+ Loss/profit from disposal of assets	-6,024	907
- Reversal of accrued investment grants	-35,140	-38,450
+/- Other material non-cash income and expenses	129,779	-16,985
<b>= Cash flow from operating result</b>	<b>-127,497</b>	<b>156,617</b>
+ Changes in prepayments and customer advances	24,926	35,601
+/- Decrease/increase in inventories (excl. prepayments)	24,007	-120,604
+ Decrease in trade receivables	59,884	1,480
- Decrease/increase in trade liabilities	-28,925	-50,581
- Development in other net assets	-22,092	-26,137
<b>= Cash flow from operating result and changes in net assets</b>	<b>-69,697</b>	<b>-3,624</b>
+ Interest received	2,935	4,294
+/- Taxes on income received/paid	16,518	-50,235
<b>= Cash flow from operating activities</b>	<b>-50,244</b>	<b>-49,565</b>
- Cash payments for investments in fixed assets	-52,543	-181,374
+ Cash receipt investment grants	27,508	23,906
+ Cash receipts from the disposal of fixed assets	32,469	22,797
+ Cash receipts from financial investments	7,871	67,494
-/+ Cash payments/receipts from the acquisition of consolidated entities	-2,304	15,669
<b>= Cash flow from investing activities</b>	<b>13,001</b>	<b>-51,508</b>
+ Cash receipts from borrowings	0	258,571
- Cash payments from the repayment of loans	-214,823	-132,584
- Interest paid	-66,946	-59,842
- Cash payments due to dividend distributions	-9,972	-21,051
+ Payments from non-group shareholders	0	1,266
<b>= Cash flow from financing activities</b>	<b>-291,741</b>	<b>46,360</b>
- Net changes in cash and cash equivalents	-328,984	-54,712
-/+ Currency and consolidation-related change of cash and cash equivalents	-252	1,503
+ Cash and cash equivalents at the beginning of the period	553,345	606,554
<b>= Cash and cash equivalents at the end of the period</b>	<b>224,109</b>	<b>553,345</b>

\* Comparative figures were adjusted in accordance with IAS 8.22. We refer to our comments in note 1.

# NOTES

## GENERAL DISCLOSURES

### 1. BASIC PRINCIPLES, ACCOUNTING POLICIES

SOLARWORLD AG is a listed corporation domiciled at Martin-Luther-King-Straße 24, Bonn, Germany. SOLARWORLD AG's Management Board prepared the consolidated statements on April 29, 2013 and released them for disclosure on the same day.

SOLARWORLD group is one of the leading manufacturers of crystalline solar power technology worldwide. SOLARWORLD AG and its subsidiaries research, develop, produce and recycle on all levels of the solar value added chain. The focus of operations is on the production and international distribution of high-end solar energy facilities – from rooftop solar systems to components for outdoor solar parks. The products can be used both in the on- and off-grid area.

The consolidated financial statements are based on the assumption of a going concern. This assumption materially depends on the successful agreement and implementation of financial restructuring. A more detailed presentation of the risks existing in this connection can be found in the corresponding comments in note 65e and the management report.

In accordance with § 315a para. 1 HGB, SOLARWORLD AG prepared its consolidated financial statements per Dec. 31, 2012 pursuant to the International Financial Reporting Standards (IFRS) of the International Accounting Standards Board (IASB) as applicable in the European Union ("EU-Endorsement") at balance sheet date as well as to the interpretations of the International Financial Reporting Interpretations Committee (IFRIC). In addition, the commercial law regulations further stated in § 315a para. 1 HGB were taken into account. All mandatory applicable standards and interpretations have been considered. 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. For the purpose of clear and more comprehensive presentation, individual items are combined on balance sheet and income statement. Additional details are given in the notes where those items are presented separately.

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.

#### First-time mandatory application of standards and interpretations in 2012

The following standards and interpretations or substantial amendments were to be applied in 2012 for the first time:

**IFRS 7 – FINANCIAL INSTRUMENTS: DISCLOSURES.** The amendments issued by the IASB on October 7, 2010 were adopted into European law on November 22, 2011. Entities shall apply the amendments for annual periods beginning on or after July 1, 2011. The amendments of IFRS 7 introduced additional reporting or disclosure obligations that primarily concern transferred financial assets that are not derecognized in their entirety, their type and the risk as well as the relationship between such financial assets and the corresponding liabilities.

**Standards and interpretations not yet mandatory**

In the current period, SOLARWORLD AG did not apply any non-mandatory standards early.

**AMENDMENTS IAS 1 – PRESENTATION OF FINANCIAL STATEMENTS.** The IASB issued the amendments on July 16, 2011 and adopted into European law on June 5, 2012. The amendment of IAS 1 requires the grouping of items presented in “Other Comprehensive Income (OCI)” into two categories:

- a) Items that will not be reclassified to profit or loss in subsequent periods and
- b) Items that might be reclassified to profit or loss in subsequent periods subject to certain conditions (so-called “Recycling”).

The amendments are applicable to periods beginning on or after July 1, 2012 and are probably not going to have material impact on the consolidated financial statements of SOLARWORLD AG. We refer to our statements in note 39.

**AMENDMENTS IAS 12 – DEFERRED TAXES.** The IASB issued the amendments on December 20, 2010. They were adopted into European law on December 11, 2012 and became effective on January 1, 2013. For the purpose of recognizing deferred taxes, it is presumed that the economic benefits from investment property measured at fair value in accordance with the option provided by IAS 40 are realized through sale, not collection over time. This, however, only applies if the presumption is not rebutted. The amendments become operative for periods ending on or after January 1, 2013. The amendments will not affect the consolidated financial statements of SOLARWORLD AG, as investment property is measured at amortized cost. We refer to our statements in note 10.

**AMENDMENTS IAS 19 – EMPLOYEE BENEFITS.** The amendments published by the IASB on June 15, 2011 were adopted into European law on June 5, 2012 and become operative for financial statements covering periods beginning on or after January 1, 2013. The amendments mainly concern the recognition of actuarial gains and losses. While previously an option regarding the recognition on the income statement or in “Other Comprehensive Income” existed, recognition in “Other Comprehensive Income” is now mandatory. The “corridor approach” that was possible in accordance with the former IAS 19 was eliminated. The amended IAS 19 is applicable retroactively. The consequence of the first time application of the amendment of IAS 19 for the period 2013 will be that the actuarial losses of € 626k not yet redeemed per December 31, 2012 will be recognized in other comprehensive income thereby not affecting profit or loss. We refer to note 59.

On May 12, 2011, the IASB published three new (IFRS 10, 11 and 12) and two revised (IAS 27 and 28) standards that comprise new consolidation regulations (so-called “consolidation package”). These were adopted into European law on December 11, 2012 and become operative for financial statements beginning on or after January 1, 2014. The amendments will not materially affect the consolidated financial statements of SOLARWORLD AG.

- **IFRS 10 – CONSOLIDATED FINANCIAL STATEMENTS.** This standard establishes a uniform basis for the definition of a parent-subsidiary relationship or the precise demarcation of the consolidated entity. The definition of control changes insofar as the same criteria applies for each entity upon determining the control relationship. This standard replaces the previously relevant provisions in IAS 27 (“Consolidated and separate financial statements”) and SIC 12 (“Consolidation – special purpose entities”).
- **IFRS 11 – JOINT ARRANGEMENTS.** This standard replaces the current provisions of IAS 31 (“Interests in joint ventures”) and SIC 13 (“Jointly controlled entities – non-monetary contributions by ventures”) and includes provisions regarding identification, classification and recognition of joint arrangements. Only two types of joint arrangements exist anymore: Joint Ventures that may only be accounted for using the equity method from now on (i. e. quota consolidation is no longer permitted) and Joint Operations that directly recognize in their consolidated financial statements all assets, liabilities, expenses and revenue from such joint operation in relation to their interest in such joint operation. The consolidated financial statements of SOLARWORLD AG recognize both investments in associates and joint ventures in accordance with the equity method. We refer to our corresponding statements in note 11.

- **IFRS 12 – DISCLOSURE OF INTERESTS IN OTHER ENTITIES.** IFRS 12 determines the necessary disclosures for entities that are required in accordance with the new standards IFRS 10 and 11. The standard replaces the disclosure requirements currently included in IAS 28 “Investments in Associates” and the disclosure requirements regarding consolidated financial statements included in IAS 27. The objective is to enable the user of financial statements to better evaluate the type, risks and financial consequences of interests in other entities.
- **IAS 27 – SEPARATE FINANCIAL STATEMENTS.** The newly issued IFRS 10 and 12 now provide separate regulations on consolidated financial statements. Thus, IAS 27 now only states the regulations regarding separate financial statements and was hence renamed accordingly.
- **IAS 28 – INVESTMENTS IN ASSOCIATES.** With the introduction of IFRS 10, 11 and 12, the adjusted IAS 28 governs accounting for investments in associates and the requirements for the application of the equity method upon recognition of investments in associates and joint ventures.

**IFRS 7 AND IAS 32 – OFFSETTING FINANCIAL ASSETS AND FINANCIAL LIABILITIES.** The standards were published on December 16, 2011 and were adopted into European law on December 13, 2012. The amendments of IAS 32 clarify existing application problems with regard to offsetting criteria for financial assets and financial liabilities. The amendments especially clarify the meaning of the terms “currently has a legally enforceable right of set-off” and “simultaneous realization and settlement”. The amendments of IFRS 7 require that, for financial instruments, information on rights of set-off and related agreements (e.g. hedging requirements) be disclosed in an enforceable set-off master agreement or a corresponding agreement. The amendments become operative for periods beginning on or after January 1, 2013. Entities shall provide the disclosures in the notes retrospectively for all comparative periods. The amendments of IAS 32, in contrast, become operative for periods beginning on or after January 1, 2014, and shall be applied retrospectively. We do not assume that these amendments will materially affect the consolidated financial statements of SOLARWORLD AG.

**IFRS 13 – FAIR VALUE MEASUREMENT.** The standard was published by the IASB on May 12, 2011, adopted into European law on December 11, 2012 and becomes operative for periods beginning on or after January 1, 2013. IFRS 13 reflects the measurement regulations for determining the fair value and refers to almost all other standards (with the exception of IAS 2 “Inventories”, 17 “Leases”, and IFRS 2 “Share-based payment”). The standard itself does not contain any provisions as to when the fair value shall be used. The amendments will not affect the consolidated financial statements of SOLARWORLD AG.

**IFRIC 20 – STRIPPING COSTS IN THE PRODUCTION PHASE OF A SURFACE MINE.** IFRIC 20 was published on October 19, 2011, adopted into European law on December 11, 2012 and is applicable for annual periods beginning on or after January 1, 2013. The interpretation clarifies if and under what requirements stripping costs that are incurred in the scope of developing a surface mine constitute assets and how initial and subsequent measurement are to be carried out. The amendments will not affect the consolidated financial statements of SOLARWORLD AG.

**The following accounting standards were passed in 2012 however not yet adopted into European law by the EU as of December 31, 2012:**

On June 28, 2012, amendments of IFRS 10, IFRS 11 and IFRS 12 were published to clarify the legislative content of certain transitional guidelines regarding their first time application. As a basic rule, entities shall apply the amendments of the transitional guidelines for periods beginning on or after January 1, 2013. Initial application in the EU will probably only be mandatory for periods beginning on or after January 1, 2014. The amendments will not materially affect the consolidated financial statements of SOLARWORLD AG.

On October 31, 2012, amendments of IFRS 10, IFRS 12 and IAS 27 were published that become operative for periods beginning on or after January 1, 2014. Herein, investment entities are defined as an independent type of companies and exempted from the consolidation regulations of IFRS 10. Instead, investment entities have to present interests held for investment purposes at fair value. The amendments will not affect the consolidated financial statements of SOLARWORLD AG.

In addition to the amendments mentioned above concerning the so-called “consolidation package”, further amendments were published that had not been adopted into European Law per December 31, 2012:

**IMPROVEMENTS OF IFRS.** On May 17, 2012, the IASB – in the scope of its annual improvement process – published updates of IFRS in terms of smaller and less urgent adjustments that have not yet been adopted into European law. As a basic rule, the amendments become operative for periods beginning on or after January 1, 2013. Most of the adjustments concern clarifications and substantiations of existing IAS/IFRS or amendments that result from IFRS modifications already conducted. The following selected contents of the collective standard regarding improvements of IFRS had to be taken into account upon preparing the consolidated financial statements for SOLARWORLD group:

- **IAS 1 – PRESENTATION OF FINANCIAL STATEMENTS.** IAS 1 requires that entities prepare a third balance sheet per the beginning of the comparative period if accounting principles are used retrospectively or balance sheet items are adjusted or reclassified retrospectively. The amendments of IAS 1 clarify that an obligations to prepare the third balance sheet only exists if the retrospective adjustments materially affect the information of the third balance sheet. In addition it is clarified that disclosures in the notes are not necessary with regard to the third balance sheet. In correspondence with the amended standard, the group prepared a third balance sheet per January 1, 2011, due to the changed accounting method regarding the recognition of paid and received prepayments with respect to long-term sales contracts for silicon wafers and long-term purchase agreements for silicon (for further details compare below). Disclosures in the notes that exceed the requirements of IAS 8 were not conducted.
- **IAS 16 – PROPERTY, PLANT AND EQUIPMENT.** The amendments of IAS 16 clarify that spare parts, replacement equipment and maintenance machines constitute property, plant and equipment if they meet the definition criteria; otherwise they have to be treated as inventories. This amendment will not affect the consolidated financial statements of SOLARWORLD AG, as the group already proceeds in accordance with the new regulation.
- **IAS 32 – FINANCIAL INSTRUMENTS: PRESENTATION.** The amendments of IAS 32 clarify that income taxes in connection with distributions to owners of equity instruments and costs of equity transactions shall be treated in accordance with IAS 12. Thus, income tax-related consequences from dividends and from transaction expenses (issuance or repurchase of equity instruments) have to be recognized on the income statement and in equity, respectively. These amendments will not affect the consolidated financial statements of SOLARWORLD AG.
- **IAS 34 – INTERIM FINANCIAL REPORTING.** The amendments of IAS 34 clarify that the presentation of changes in segment assets and liabilities in the interim report are mandatory only if they substantially changed as compared to the prior year's financial statements and such changes are periodically reported to the main decision making bodies. These amendments will not materially affect the consolidated financial statements of SOLARWORLD AG.

**IFRS 9 – FINANCIAL INSTRUMENTS.** IFRS 9 was published on November 12, 2009. It reflects the first phase of the IASB project for the replacement of IAS 39 and concerns the classification and measurement of financial assets as defined in IAS 39. The standard was originally applicable for annual periods beginning on or after January 1, 2013. Per December 16, 2011, however, the effective date of IFRS 9 was changed to annual periods beginning on or after January 1, 2015. Moreover, the relief from restating comparative periods and associated disclosures in IFRS 7 was modified. In further phases, the IASB will expand IFRS 9 to add new requirements regarding the classification and measurement of financial liabilities, hedge accounting and impairments. The results of the initial phase of IFRS 9 will probably affect the classification and measurement of financial assets of SOLARWORLD group. To present a comprehensive picture of potential consequences, the group will quantify the consequences only in connection with the other phases once they are published.

#### Changes in accounting methods

In the reporting period 2012, SOLARWORLD group changed the accounting method regarding the recognition of paid and received advances in connection with long-term sales contracts for silicon wafers and long-term purchase agreements for silicon. The IFRS did not include a clear provision governing the issue of whether, due to the financing character of such advance payments, the fair value of money should be taken into account by accumulation of the advance payment upon recognition. Interpreting the existing IFRS, SOLARWORLD group used to accrete interests on the received and paid advance payments at implicit or matched maturity interest rate. In January 2012, the IFRS IC received an inquiry concerning the different treatment of the facts and circumstances within the accounting practice. Thereupon, the IASB provided further guidance for the recognition of such facts and circumstances. To take the current state of discussion into account, SOLARWORLD group reviewed its accounting method

and conducted a modification. As a result, interests on received and paid advances are not longer accreted. The consequences of the change in accounting methods were considered retrospectively in accordance with IAS 8.22. Accordingly, the comparative amounts of the annual period 2011 were adjusted in a way as if no accretion of interests had been conducted in 2011 and prior periods. The result effects of the prior periods were directly offset with the cumulative results per January 1, 2011. The impact of the mentioned adjustments on the items of the consolidated balance sheet and consolidated income statement are as follows:

#### Adjustments on the consolidated income statement

in k€	1. Revenue	4. Other operating income	5. Cost of materials	10. Financial result	12. Income taxes
Jan 1, 11 to Dec 31, 11 prior to adjustment	1,046,940	281,872	-831,905	-53,304	-14,543
Adjustment	-2,005	-21,373	12,753	-6,188	8,951
Jan 1, 11 to Dec 31, 11 after adjustment	1,044,935	260,499	-819,152	-59,492	-5,592

#### Adjustments on the consolidated balance sheet

in k€	Assets		
	A.VI. Other non-current assets	A.VII. Deferred tax assets	B.I. Inventories
Jan 1, 2011 prior to adjustment	310,788	5,195	337,370
Adjustment	-30,709	0	-8,265
Jan 1, 2011 after adjustment	280,079	5,195	329,105
Dec 31, 2011 prior to adjustment	268,581	2,479	386,771
Adjustment	-33,448	-231	-8,376
Dec 31, 2011 after adjustment	235,133	2,248	378,395

in k€	Equity and liabilities			
	A.I.4. Accumulated results	B.IV. Other non-current liabilities	B.V. Deferred tax liabilities	C.V. Other current liabilities
Jan 1, 2011 prior to adjustment	501,442	215,917	37,348	80,069
Adjustment	-8,507	-22,971	-3,437	-4,059
Jan 1, 2011 after adjustment	492,935	192,946	33,911	76,010
Dec 31, 2011 prior to adjustment	203,901	94,621	28,186	67,753
Adjustment	-16,368	-10,847	-12,618	-2,222
Dec 31, 2011 after adjustment	187,533	83,774	15,568	65,531

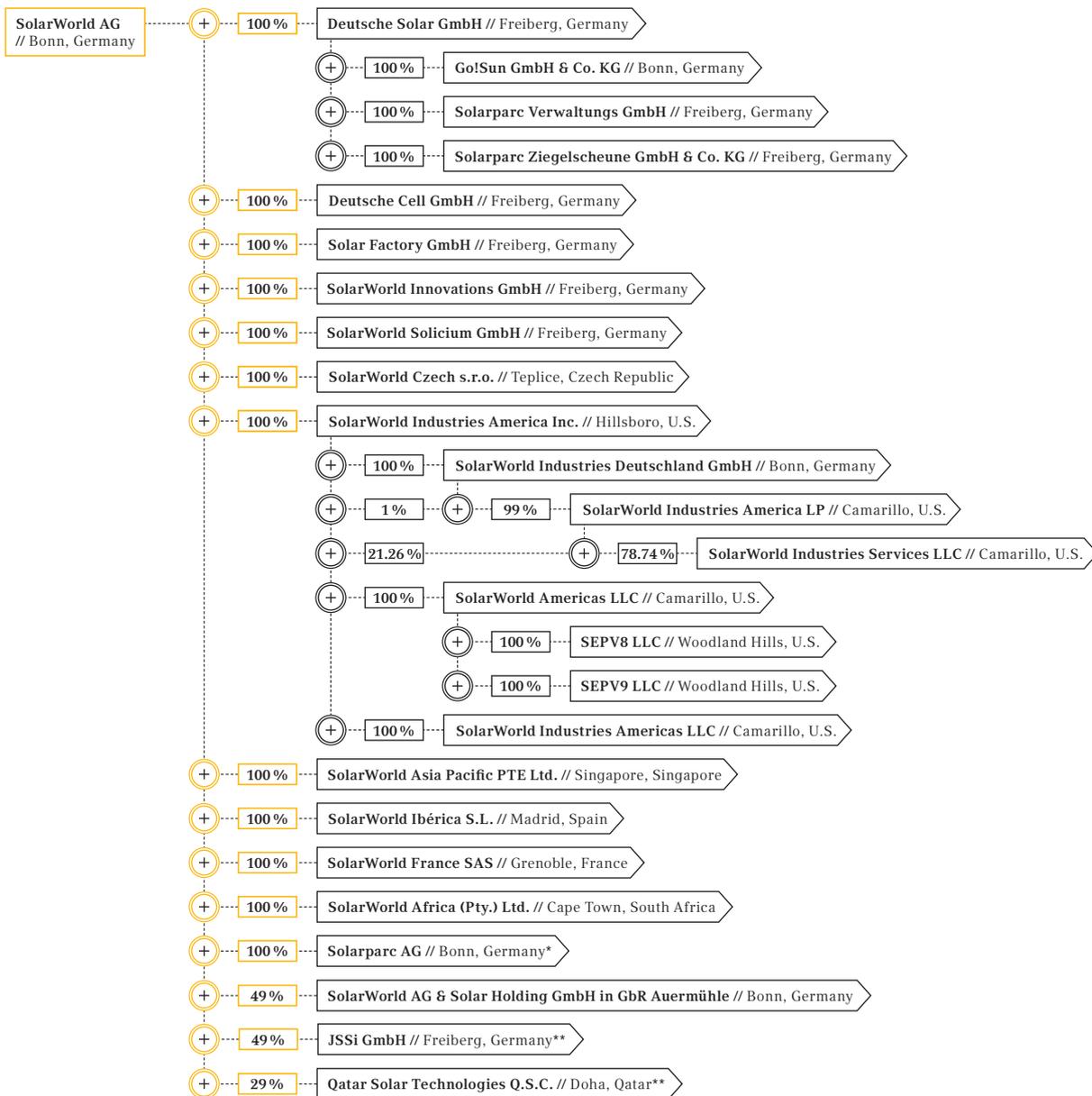
## 2. CONSOLIDATED ENTITY AND LEGAL GROUP STRUCTURE

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 rights of the entity or can otherwise control the entity's activities. These entities 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 and associates are capitalized using the equity method.

The figure below shows SOLARWORLD group's consolidated entities and their structure at December 31, 2012:

SOLARWORLD 2012  
GROUP STRUCTURE

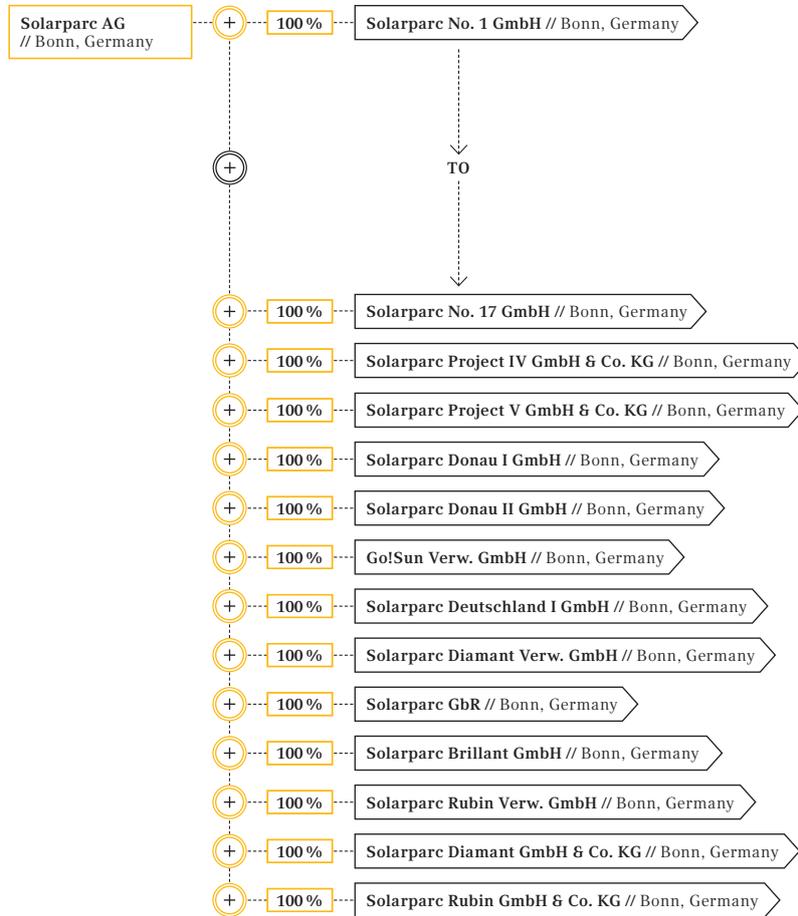
75 SOLARWORLD GROUP STRUCTURE AS AT DECEMBER 31, 2012



\* Structure of the subgroup on next page

\*\* Consolidated at equity

76 SOLARPARC SUB-GROUP STRUCTURE AS AT DECEMBER 31, 2012



In the annual period 2012, SOLARWORLD AG purchased the remaining 311,286 shares in SOLARPARC AG for € 2,713k in the scope of the squeeze out process. Thus, SOLARWORLD AG has 100 percent (prior year 94.81 percent) of the voting rights in SOLARPARC AG per December 31, 2012. We refer to note 6.

On March 26, 2012, SOLARPARC Teutschenthal GmbH & Co. KG was sold to a third party investor in its entirety. In accordance with the accounting method described in note 3, revenue of € 14,849k resulted from this sale.

With contract under the law of obligations dated December 4, 2012, SOLARPARC Projekt I GmbH & Co. KG was sold to a third party investor. Upon meeting substantial conditions precedent, the entity was deconsolidated in the reporting period. In accordance with the accounting method described in note 3, this resulted in revenue of € 3,150k.

With contract under the law of obligation dated August 9, 2012, SOLARPARC Projekt II GmbH & Co. KG was sold to a third party investor. Upon meeting substantial conditions precedent, the entity was deconsolidated in the reporting period. In accordance with the accounting method described in note 3, this resulted in revenue of € 31,975k.

With contract under the law of obligation dated June 29, 2012, and addenda dated July 27, 2012 and September 24, 2012, SOLARPARC Projekt III GmbH & Co. KG was sold to a third party investor. Upon meeting substantial conditions precedent, the entity was deconsolidated in the reporting period. In accordance with the accounting method described in note 3, this resulted in revenue of € 16,984k.

In the reporting period, SOLARPARC AG's investment in Windparc Rheinland GmbH and the remaining wind operations were spun off onto the newly founded SOLARPARC Wind GmbH & Co. KG, which was sold to a third party investor in late 2012.

In the scope of spinning off the wind portfolio of the company, the investment in SOLARPARC Windverwaltungs GmbH (formerly: SOLARPARC Bayern I GmbH) was sold to SOLARPARC Wind GmbH & Co. KG, which acted as general partner in relation to SOLARPARC Wind GmbH & Co. KG at the time of disposal.

Upon spinning off and selling the wind portfolio, the investments in the following joint ventures that were previously accounted for using the equity method were also sold:

- WKA Wissel GmbH & Co. KG & WindWelt AG, Bonn
- proVento Ravensberg I Windkraftanlagenbetriebsgesellschaft bürgerlichen Rechts, proVento Ravensberg II Windkraftanlagenbetriebsgesellschaft bürgerlichen Rechts, Vernet GmbH & Co Mechernich 1 KG, WKR Windkraft GmbH, WindWelt AG in Gesellschaft bürgerlichen Rechts, Kall
- Infrastruktur Windkraft Wanlo Gesellschaft bürgerlichen Rechts, Bonn

SOLARCYLE GMBH, an associate also accounted for using the equity method, in which SOLARWORLD AG holds a 24 percent investment, is currently in liquidation. With shareholder resolution of March 19, 2012, the entity was dissolved per March 25, 2012.

Per merger agreement dated May 16, 2012 and the resolutions of the shareholder meetings of both legal entities of June 19, 2012, SUNICON GMBH was retroactively merged onto DEUTSCHE SOLAR GMBH per January 1, 2012 (effective merger date). The merger was entered in the commercial register of both entities per July 2, 2012.

SOLARWORLD POWER PROJECTS INC. was merged onto SOLARWORLD AMERICAS LLC in the reporting period.

DEUTSCHE SOLAR GMBH, DEUTSCHE CELL GMBH, SOLAR FACTORY GMBH, SOLARWORLD INNOVATIONS GMBH and SOLARWORLD SOLICIUM GMBH utilize the disclosure and preparation facilitations provided by § 264 para. 3 HGB.

### 3. CONSOLIDATION PRINCIPLES

Subsidiaries are fully consolidated once the group has control. Consolidation ends once the parent company does not have control any longer. The financial statements of domestic and foreign consolidated entities are reconciled to uniform accounting policies for the purpose of preparing the consolidated financial statements (we refer to notes 7 to 26). The financial statements of the subsidiaries are prepared for the same reporting period as those of the parent company. All intercompany balances, income and expenses as well as unrealized profits and losses and dividends from intercompany transactions are eliminated in full.

The following additions apply with regard to recognition of project entities that were or are specially established for the construction, operation and marketing of solar parks: Amongst other things, SOLARWORLD group's operations include the development, construction and marketing of solar parks. For this purpose, special project entities are founded that are fully consolidated in the consolidated financial statements if SOLARWORLD group controls them in terms of IAS 27 or SIC 12 or the substantial economic opportunities and risks lie with SOLARWORLD group. Deliveries and services rendered to the respective project entity by SOLARWORLD group within the consolidation period therefore do not result in revenue recognition but instead either result in an increase of inventories through work in progress or finished goods or of fixed assets in the case of external marketing not scheduled in the medium-term. Revenue recognition occurs at the time of deconsolidation, i. e. when SOLARWORLD group no longer controls the project entity. Since the construction and marketing of solar parks is part of SOLARWORLD group's operations, deconsolidation of project entities, from an economic point of view, equals the sale of a solar park that is therefore recognized as a revenue transaction on the income statement and shown in the cash flow from operating activities on the cash flow statement.

For capital consolidation, cost of the investment is offset with the proportional equity amount – measured at fair value – at the time of acquisition. A resulting positive difference is allocated to the assets insofar as their carrying amount differs from the fair value. Any remaining positive difference is considered goodwill. A negative difference is recognized through profit and 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. and QATAR SOLAR TECHNOLOGIES Q.S.C. whose functional currency is US\$.

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 a currency exchange reserve, thereby not affecting profit or loss. The amount recognized in the reserve for a foreign operation is rerecognized and shown on the income statement upon disposal of the foreign operation.

The following exchange rates were used for currency translation:

1 € =	Closing rate		Average rate	
	31.12.12	31.12.11	2012	2011
U.S. (USD)	1.32	1.29	1.29	1.40
South Africa (ZAR)	11.17	10.48	10.58	10.14
Czech Republic (CZK)	25.15	25.79	25.14	25.17

##### 5. SUBSTANTIAL JUDGMENTS, 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 statement of contingent assets and liabilities. The uncertainty of 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, estimates and assumptions were made when the group's financial statements in 2012 were prepared:

The consolidated financial statements are based on the assumption of a going concern. This assumption materially depends on the successful agreement and implementation of financial restructuring. A more detailed presentation of the risks existing in this connection can be found in the corresponding comments in note 65e and the management report.

For the rest, the most significant assumptions and estimations concern the measurement of inventories, usability of deferred tax assets, the reversal of customer advances through profit and loss, impairment tests for fixed assets, measurement of claims for repayment of prepayments made for long-term silicon contracts and accounting and measurement of provisions especially provisions for potential contingent losses and warranties. These assumptions and estimations are based on premises that are, in turn, based on the respective state of knowledge currently available. However, these circumstances and assumptions regarding future developments can change due to market fluctuations and the market situation as well as legal assessments to the contrary that lie outside the group's influence. Such changes are included in the assumptions only upon occurrence.

Assumptions regarding expected business development are especially based on the existing circumstances 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 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. More details on the basic assumptions for determining the recoverable amount for the cash-generating unit are provided in note 32.

Especially with regard to measurement on the basis of the recoverable amount, the inventory measurement is based on assumptions regarding the expected sales prices and costs expected to be incurred until completion. As a basic principle, we assumed that raw materials and consumables as well as work in progress are further processed to modules and sold.

With regard to long-term purchase agreements for silicon and the respective prepayments made, assumptions are made that are based on the legal validity of the agreements and, as regards to their extent, on the measurement of such prepayments. Such assumptions are subject to considerable uncertainties and are essentially based on estimations of the company's legal consultants and our own estimations. With respect to the legal validity of the agreements and on the basis of legal opinions prepared by third parties, the company assumes that purchase commitments from the material contracts in a total amount of € 1.3 billion (calculated on the basis of originally agreed prices) probably violate EU anti-trust laws and therefore are or become null and void. Thus, in the accounting, the company neither set up a provision for unfavorable contracts in terms of IAS 37 nor deducted it from prepayments made. With regard to the accounting of the respective prepayments made (carrying amount € 205.1 million), the company assumes that the major proportion (€ 123.7 million) is subject to repayment claims and that, for the rest, commercial solutions will be found that enable the realization of big parts of the recognized amounts. The recognized impairment loss at the end of the period amounts to € 40.7 million. At this point of time, SOLARWORLD AG expects that the remaining amounts are recoverable.

Due to uncertainties in the scope of possible legal disputes, the accounting and measurement of the long-term contracts is subject to periodic reestimation upon changing circumstances in the course of time. The current recognition and calculation is based on a scenario that the executive board considers the most probable. A partial or total loss of the prepayments or even claims for damages exceeding the prepayments, however, cannot be ruled out entirely should the company fail to come to an agreement with its suppliers or a court ultimately issues a different assessment.

The warranty provision is set up for specific individual risks, for the general risk of claims due to statutory warranties and performance guarantees granted with regard to sold solar modules. The latter are granted for a period of 25 years. Since SOLARWORLD AG has been producing and selling solar modules for significantly less than 25 years, it is hardly possible to fall back on experience regarding the calculation of the performance guarantee provision. Much rather, assumptions and estimations are required that are subject to uncertainties. Their modification due to gaining experience regarding claims due to the performance guarantee over the course of time can lead to adjustments of the provision or consequences on the expenses from warranties recognized on the income statement.

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 23 and 59.

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. In this connection, SOLARWORLD AG set up deferred tax assets regarding loss carryforwards of the German fiscal unity as the company assumes that in the scope of financial restructuring, sufficient tax-effective restructuring profits will be generated to utilize the tax loss carryforwards. However, since an agreement concerning an ultimate financial restructuring concept has not been reached, this assumption is subject to significant uncertainties.

Uncertainties exist with respect to the interpretation of complex tax regulations, changes in tax law and the amount and time of origination of future results subject to tax. Due to the great bandwidth of international business relations and the non-current character and complexity of existing contractual agreements, it is possible that deviations between the actual results and the assumptions made or future modifications of such assumptions might require adjustments of tax income and tax expenses already recognized. On the basis of reasonable estimations, the group sets up provisions for possible tax field audits in the countries of operations. The extent of such provisions is based on different factors, e.g. experience from past tax field audits and different interpretations of tax law regulations by the taxpaying entity and the responsible tax office. Such different interpretations can result from a number of different facts and circumstances depending on the conditions that prevail in the country of domicile of the respective group company.

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 primarily 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. For further details, we refer to note 65.

Expenses from postemployment 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, mortality and future increase in pensions. Due to the complexity of measurement, the assumptions used as a basis and their long-term nature, a defined benefit 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. Further details regarding the applied assumptions can be found in notes 22 and 59.

## ACCOUNTING POLICIES

### 6. BUSINESS COMBINATIONS AND ACQUISITION OF NON-CONTROLLING INTERESTS

Business combinations are accounted for using the purchase method. Cost of a business combination consist of the balance of the transferred consideration measured at fair value as of acquisition date and – if applicable – the non-controlling interests in the acquired entity. Expenses incurred in the scope of the business combination are recognized as expense.

If an entity is acquired, the classification and designation of the financial assets and assumed liabilities is assessed in compliance with the contract terms, economic framework and conditions prevailing at the time of acquisition.

Upon initial recognition, goodwill is measured at cost, which constitutes the surplus of the transferred consideration and the amount of the non-controlling interest – if applicable – over the acquired identifiable assets and assumed liabilities of the group. If this consideration ranges below fair value of the net assets of the acquired subsidiary, the difference (badwill) is recognized on the income statement.

In accordance with IAS 27.30, changes in the ownership interest in subsidiaries that do not result in a loss of control are accounted for as transactions with owners in their capacity as owners (equity transactions). In the scope of an equity transaction, the additional acquisition only concerns the allocation of the owners' residual claims. Hence, recognition of assets and liabilities remain unchanged. Within equity, however, a shift in assets takes place between majority owners and non-controlling owners.

#### SOLARPARC AG

In the reporting period, SOLARWORLD AG acquired the remaining 311,286 shares in SOLARPARC AG in the scope of the squeeze out proceeding, cost amounting to € 2,713k. Thus, SOLARWORLD AG holds 100 percent of the voting rights in SOLARPARC AG per December 31, 2012 (prior year 94.81 percent). As described above, the increase in interest in SOLARPARC AG was accounted for as an equity transaction in accordance with IAS 27.30. A shift in assets thus takes place between the majority owners and non-controlling owners within equity. The process therefore resulted in a reduction of the interest of the non-controlling owners by € 1,939k and a simultaneous reduction of the revenue reserves or accumulated result by € 774k.

### 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. Aside from goodwill, intangible assets subject to indefinite useful lives do not exist. Expenditure on research incurred upon generation of intangible assets is immediately recognized as an expense. The same applies as regards development expenditure because research and development are iteratively linked and reliable separability therefore generally does not exist.

Profits or losses from derecognition of intangible assets are determined as the difference between the net disposal gain and the carrying amount of the asset and recognized through profit or loss in the period in which the asset is derecognized. Amortization of intangible assets is recognized in the amortization and depreciation item on the income statement.

All expenses for exploration and evaluation of natural resources are recorded as such and separately recognized as intangible assets. To the extent to that indications exist that point to impairment in terms of IFRS 6.20, the intangible asset is assessed for potential impairments. At balance sheet date, such indications were not at hand. After successful exploration and evaluation, the intangible asset is subject to regular amortization for the duration of the production period. Depreciation of property, plant and equipment used for exploration and evaluation purposes is part of the expenses that are recognized as intangible asset.

Goodwill – especially from capital consolidation – is subjected to an annual impairment test in accordance with IFRS 3 and IAS 36 and 38. Impairment tests are also conducted if individual indications imply the necessity. We refer to our comments in note 9 below.

#### 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 qualifying asset are capitalized as part of the 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 qualifying assets. However, no qualifying assets were identified in the annual period 2012. Hence, all borrowing costs were recognized as expenses.

Ongoing maintenance and repair expenses that do not constitute material replacement investments are recognized as expense right away. To the extent to that 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.

To the extent to that depreciable property, plant and equipment consist of material identifiable components with different useful lives, these components are recognized separately and written down over the course of the respective useful life.

The present value of an expected disposal of an 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 59.

With respect to own work capitalized we refer to note 28.

The following useful lives are used as a basis for depreciation:

Buildings including investment property	15 to 50 years
Buildings/fixtures on leasehold land	Lease agreement terms (max. 10 – 15 years)
Technical equipment and machinery	Up to 10 years
Wind power and photovoltaic plants	20 years
Other equipment, factory and office equipment	3 to 5 years

Property, plant and equipment are derecognized either upon disposal 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.

Investment grants and subsidies do not reduce the respective asset's cost but are subject to deferral on the liabilities side of the balance sheet. We refer to notes 21 and 58.

#### 9. IMPAIRMENTS OF PROPERTY, PLANT AND EQUIPMENT AND INTANGIBLE ASSETS

At each balance sheet date, the carrying amounts of property, plant and equipment and intangible assets are examined with regard to indications of the occurrence of impairments (impairment test). If such indications are identifiable, the recoverable amount of the asset is estimated to determine the extent of any possible impairment expenses. To the extent to that the recoverable amount cannot be estimated for the individual asset, the determination is conducted on the level of the cash generating unit (CGU) to which the respective asset is assigned.

Intangible assets with indefinite useful lives or those that cannot yet be used are subject to impairment testing at least once a year (December 31) and whenever so-called "triggering events" occur. Aside from recognized goodwill, assets with indefinite useful lives do not exist within SOLARWORLD group.

The recoverable amount is the higher one of fair value less costs to sell and the value in use.

- For determining the value in use, the estimated future cash flows are discounted with a pre-tax interest rate, which considers both the current market assessment through time value of money and risks concerning the asset to the extent to that they are not yet accounted for in the scope of the cash flow estimation. The computations are based on forecasts that are based on financial plans for the next three years as authorized by management. This planning horizon shows the assumptions for short- and medium-term market developments. The last detailed forecast year was perpetuated for another two years subject to average expected values especially for the revenue and expense development. With regard to the perpetuity period that exceeds this term, an extrapolation of cash flows at an annual growth rate of 1 percent was assumed on the basis of the second year of this 1st perpetuity phase. Discounting of the free cash flows was carried out at weighted average costs of capital after corporation taxes between 11.0 percent and 15.0 percent (2011: 7.2 percent to 8.2 percent). This discount rate is based on the risk-free interest rate determined in accordance with the reporting date-related interest structure at the bond market for which a value between 2.10 percent and 3.35 percent was applied and a general market risk premium before personal taxes between 5.80 percent and 6.25 percent. Data of a representative peer group, in which SOLARWORLD AG is also considered, were used for determining the beta factor, borrowed capital surcharge and capital structure.
- The fair value less costs to sell is initially determined on the basis of actual binding offers for the disposal of the assets at hand or according to pricing of comparable assets in an active market. A secondary means is the derivation of market-based sales prices on the basis of comparable transactions and the best possible information otherwise available. If the latter is not possible either, the fair value less cost to sell can be determined in accordance with an adequate measurement method (discounted-cash-flow method). However, SOLARWORLD group did not

make use of this possibility. To the extent that the fair value less cost to sell was determined for individual assets as a basis for impairment tests, it equals a price derived by way of an expert's estimation from comparable transactions, which fair and eager independent third parties would be willing to pay less expected cost to sell.

To the extent that the recoverable amount of an asset or a CGU falls short of its carrying amount, the carrying amount is written down to the recoverable amount. The impairment loss is immediately recognized through profit and loss.

Should the impairment loss be reversed, the carrying amount of the asset or the CGU will be increased to the reassessed recoverable amount. Attention needs to be paid to the ceiling of the addition in the amount of the original carrying amount of the asset or CGU. The reversal of an impairment loss is immediately recognized through profit and loss.

Goodwill is not subject to scheduled amortization but is assessed on the basis of the recoverable amount of the CGU it is assigned to (impairment only approach). Goodwill acquired in the scope of a business combination is assigned to each individual CGU that is expected to get synergies out of the combination. The impairment test is conducted at least annually at reporting date (December 31) and again if indications of an impairment of the CGU are at hand.

In the event that the carrying amount of the CGU the goodwill was assigned to exceeds the recoverable amount the assigned goodwill is written down in the amount of the determined difference. Goodwill impairments cannot be reversed once they are conducted. If the determined difference (impairment necessity) of the CGU exceeds the carrying amount of the assigned goodwill, a proportionate impairment of the carrying amounts of the assets assigned to the CGU is conducted in the amount of the remaining impairment.

With regard to the results of the impairment tests conducted during the reporting year, we refer to note 32.

#### 10. INVESTMENT PROPERTY

Investment property is initially measured at cost, including transaction costs. The carrying amount includes the cost of replacing part of an existing investment property at the time that cost is incurred if the recognition criteria are met and excludes the costs of day-to-day servicing of an investment property. In the scope of subsequent measurement, investment property is recognized at cost less straight-line depreciation and impairment expenses. With regard to measurement bases and useful lives we refer to note 8.

Investment properties are derecognized when either they have been disposed of or when the investment property is permanently withdrawn from use and no future economic benefit is expected from its disposal. The difference between the net disposal proceeds and the carrying amount of the asset is recognized in the income statement in the period of derecognition.

Transfers are made to or from investment property only when there is a change in use. For a transfer from investment property to owner-occupied property, the deemed cost for subsequent accounting is the fair value at the date of change in use. If owner-occupied property becomes an investment property, the group accounts for such property in accordance with details stated in note 8 until the time of the change of use.

## 11. INVESTMENTS MEASURED AT EQUITY

The group's investments in associates are recognized in accordance with the equity method. An associate is an entity in which the group has significant influence.

Furthermore, the group is utilizing the option in accordance with IAS 31.38 and recognizes its interest in jointly controlled entities (joint ventures) 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 as well as of the unrealized proportionate intercompany results from transactions with the investee. 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 the line item "result 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 non-controlling interests in the investee's subsidiaries. The group recognizes any changes recognized directly in the investee's equity to the extent of its share. Unrealized intercompany 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 associated 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.

## 12. OTHER NONCURRENT ASSETS

Prepayments made on inventories are recognized in other noncurrent assets. The prepayments were partially made in US\$. As this does not concern monetary items in terms of IAS 21.16, measurement was carried out at historic rate at the time of spending.

## 13. INVENTORIES

Inventories include raw materials and supplies, work in process and finished goods, merchandise and short-term 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 49.

Some of the current prepayments recognized in inventories were paid in US\$. Measurement was carried out at historic rate at payment date because the prepayments are non-monetary items in terms of IAS 21.16.

#### 14. 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 lower realizable value. In part, allowances are made using a contra account. 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 stated in foreign currencies are accounted for at closing rate.

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 statements in notes 25 and 27.

#### 15. OTHER RECEIVABLES AND ASSETS

Other receivables and other assets are accounted for at nominal value. Identifiable risks and general credit risks are taken into consideration by setting up corresponding value adjustments.

#### 16. 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 reporting 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 assets are designated as “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 Solar World AG. At reporting date, financial assets of this category did not exist.

Financial assets “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 through profit or loss. 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 65.

Financial assets categorized as “loans and receivables” are non-derivative 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 derecognising 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 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).

#### 17. LIQUID FUNDS

Liquid funds include cash and cash equivalents in the form of cash in hand, bank balances and current investments made with banks that can be converted into cash contributions at any time and are subject to only marginal fluctuations in value. 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. To the extent to that means of payment are subject to restrictions on disposal of more than three months they are shown in other financial assets.

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

Individual non-current 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.

**19. 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 20 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 guarantees issued by the group are contracts concerning the obligation to make payments compensating the guarantee for a loss that results from a specific debtor not complying with his payment obligations in accordance with the requirements of a debt instrument in due time. Upon initial recognition, financial guarantees are recognized at fair value less transaction costs directly connected with issuing the guarantee. Subsequently, the liability is measured at the best estimate of the expenses required for meeting the current obligation per balance sheet date or at the higher recognized amount less accumulated amortization.

**20. DERIVATIVE FINANCIAL INSTRUMENTS AND HEDGING**

SOLARWORLD group utilizes derivatives for hedging interest rate, currency exchange and commodity risks 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 assets or 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 hedge accounting in terms of IAS 39. Profits or losses from financial assets or liabilities held for trading are recognized through profit or loss. The results are stated in other operating income or expenses to the extent to that the financial instrument was concluded for hedging purposes with regard to operating activities. Results are stated in other financial result to the extent to that the financial instrument concerns financing or investment activities.

Derivative financial instruments that are designated as hedging instruments and effective as such are categorized as current or non-current or split up in a current and a non-current part on the basis of an assessment of the facts and circumstances.

SOLARWORLD group applies hedge accounting provisions in accordance with IAS 39 (Hedge Accounting) to hedge future cash flows.

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.

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 line 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 65.

## 21. 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.

## 22. RETIREMENT BENEFITS

Group retirement benefits predominantly occur via defined 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. 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. SOLARWORLD group made use of the option to recognize actuarial gains and losses as expenses or income if the net cumulated unrecognized actuarial gains and losses at the end of the prior reporting period exceed 10 percent of the obligation at this date. The interest proportion included in the pension expenses is recognized in the item "interest and similar financial expenses".

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

## 23. OTHER PROVISIONS

Other provisions are set up to the extent to which a current (legal or constructive) obligation to third parties exists originating from an event in the past 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. To the extent to that the group expects at least a proportionate refund for a provision carried as liability (e.g. in case of an insurance agreement), the refund is recognized as a separate asset if the inflow of the refund is virtually certain. The expense from setting up the provision is recognized on the income statement less the refund. For further details, we refer to note 59.

If a provision cannot be set up because some criteria are not met while the possibility of a claim is all but remote, the respective obligations are recognized as contingent liabilities. In this context, we refer to note 67.

Provisions for expenses in connection with guarantees are set up at the time the respective product is sold or the service is rendered. First-time recognition is conducted on the basis of estimations and assumptions. We refer to our statements in note 5. The original estimation of expenses in connection with guarantees is subject to examination on a regular basis.

Provisions for restructuring measures are set up if a detailed formal restructuring plan is prepared and the respective parties were informed about such plan.

Provisions for restructuring obligations are recognized for contractually specified obligations and are measured at expected cost for restoration.

Provisions for contingent losses from onerous contracts are set up if the economic benefit expected from the contract ranges below the expenses inevitable for meeting the contract requirements.

#### 24. 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\$. 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.

In the scope of a “trust agreement for insolvency protection”, payments to an escrow account are made in connection with the accrued liabilities for profit-oriented employee compensation. These payments concern obligations of the annual periods 2011 and 2010. As these obligations are considered other long-term employee benefits in terms of IAS 19.126 (d), the current value of the obligations at balance sheet date is netted with the fair value of the escrow 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 non-current netting was conducted at reporting date.

#### 25. REVENUE AND EXPENDITURE RECOGNITION

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 (PoC) set forth by IAS 11 to the extent to that the corresponding requirements are met. For customer-specific projects, 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 state 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. To the extent to that the result of a construction contract cannot be reliably determined, project income is recognized in the amount of the connected project costs, which makes for a zero balance (zero-profit-method).

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.

All financial instruments measured at amortized cost as well as interest bearing financial assets classified as available-for-sale, interest income and interest payable are recognized at effective interest rate. This is the calculatory interest rate at which the estimated future incoming and outgoing payments are accurately discounted to the net carrying amount of the financial asset or the financial liability over the course of the expected maturity of the financial instrument or possibly a shorter period. Interest income or expenses are recognized on the income statement as part of interest and other financial income or interest and similar financial expenses and are recognized on an accrual basis.

## 26. TAXES

### a) Current taxes on income

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 in the country the group is operating in and generates taxable income at balance sheet date.

### b) 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 if the temporal course of the reversal of the temporary differences can be steered and it is probable that the temporary differences will reverse in the near 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. An exemption are 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 near 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 tax authority.

c) 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 tax 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 tax authority is recognized on the balance sheet in the item “other receivables and assets” or in “other current liabilities”.

## COMMENTS ON THE INCOME STATEMENT

## 27. REVENUE

Revenue and its allocation to the business segments and regions can be taken from segment reporting (note 40) in these consolidated notes. Consolidated revenue consist of the following products and services:

in k€	2012	2011*
Module- and assembly kit sales (group and third party manufacturing)	496,757	820,621
Cells/wafers	18,686	169,533
Project proceeds	73,903	30,991
Power generation	13,655	13,658
Other revenue	3,020	10,132
<b>Total</b>	<b>606,021</b>	<b>1,044,935</b>

\* Comparative figures were adjusted in accordance with IAS 8.22. We refer to our comments in note 1.

Project proceeds basically result from the construction of major solar plants.

At the reporting date, contrary to the prior year, no ongoing projects exist the revenue of which was accrued in accordance with the POC-method as stated in IAS 11. Accordingly, receivables and liabilities (prior year: receivables) resulting therefrom do not exist at reporting date. The chart below shows the prior year's sum of incurred contract costs and recognized profits less the amount of advances received and treated as a liability for the recognized contracts:

in k€	2012	2011
Aggregate amount of costs incurred and recognized profits (less recognized losses)	0	27,411
Advances received/payments from partial billing	0	-25,150
<b>Total</b>	<b>0</b>	<b>2,261</b>
Receivables from construction contracts (note 50)	0	2,261

Other revenue primarily includes income from the sale of other intermediate and input products and income from recycling activities.

## 28. OWN WORK CAPITALIZED

Own work capitalized recognized in the prior year mainly concerned the construction of photovoltaic systems operated by consolidated entities. Comparable transactions did not exist in the reporting period.

## 29. OTHER OPERATING INCOME

in k€	2012	2011*
Reversal of advances received	63,417	113,473
Reversal of accrued investment grants	35,140	38,450
Gains from currency translation	13,409	17,253
Compensation payments	9,978	41,434
Income from wind portfolio sale	7,071	0
Income from grants for research and development	5,261	3,938
Other income relating to other periods	4,736	1,501
Reversal of provisions and liabilities	3,883	5,909
Income from other supplies and services	2,267	19,211
On-charging of expenses	1,179	1,832
Income from derivative financial instruments	743	2,377
Income from first-time consolidation SOLARPARC AG	0	4,915
Compensation for the discharging from warranty obligations	0	2,500
Miscellaneous other operating income	6,215	7,706
<b>Total</b>	<b>153,299</b>	<b>260,499</b>

\* Comparative figures were adjusted in accordance with IAS 8.22. We refer to our comments in note 1.

Income from the reversal of received customer advances resulted from the lapse of the obligation to credit advances for wafer supplies against future supplies. € 60,372k (prior year: € 97,623k) of the income result from the complete lapse of the obligation with regard to several customers while an amount of € 3,045k (prior year: € 15,850k) results from shortfalls of orders for wafer supplies that were subject to fixed order volumes in 2012.

Compensation payments (prior year € 34.2 million) are entirely attributable to settlement payments for the non-compliance with long-term supply contracts.

Of the income from the reversal of accrued investment grants, € 13,392k (prior year € 24,454k) are due to unscheduled amortization and depreciation in the scope of impairment tests. We refer to notes 9 and 32.

Other trade income primarily results from sales of silicon that do not constitute a component of ordinary activities.

With regard to the income from the sale of the wind portfolio we refer to our comments in note 2.

Of the increase in income relating to other periods, € 2.6 million concern the reversal of impairment losses recognized for PV facilities in prior years.

Research and development grants received are subject to a number of requirements. In accordance with our knowledge today, all of these requirements will be met. Hence, repayment obligations are not expected to arise.

## 30. COST OF MATERIALS

in k€	2012	2011*
Cost of commodities, supplies and merchandise	470,843	732,359
Cost of purchased services	63,650	86,793
<b>Total</b>	<b>534,493</b>	<b>819,152</b>

\* Comparative figures were adjusted in accordance with IAS 8.22. We refer to our comments in note 1.

## 31. PERSONNEL EXPENSES

in k€	2012	2011
Wages and salaries	107,464	115,223
Social security and pensions	22,184	23,001
<b>Total</b>	<b>129,648</b>	<b>138,224</b>

The decrease in personnel expenses is mainly due to the measures for reducing personnel expenses initiated in the reporting year. Amongst other reasons, these measures became necessary due to the underutilization of our production capacities. We refer to note 69. For further details on the remuneration of the executive board, we refer to the management report and note 70.

## 32. AMORTIZATION AND DEPRECIATION

## a) Regular amortization and depreciation

The combination and classification of regular amortization and depreciation for intangible assets, property, plant and equipment and investment property of € 87,187k can be taken from the fixed asset movement schedule. We refer to note 41.

## b) Impairment test for goodwill and property, plant and equipment and irregular amortization and depreciation

At reporting date, the market capitalization of SOLARWORLD group sustainably fell short of the consolidated equity. In accordance with IAS 36.12.d, this can be understood as an indication for existing impairment requirements for all existing assets. Hence, we assessed possible impairments of all assets on the lowest possible aggregation level.

In total, the result was an impairment of property, plant and equipment and intangible assets amounting to € 189.5 million (prior year € 339.0 million), whereas corresponding reversals of accrued investment grants amounted to € 13.4 million (prior year € 24.5 million).

With the exception of the facts and circumstances set forth in note 29, reversals of impairment losses of property, plant and equipment were not conducted in the reporting period.

The consolidated income statement shows the impairment losses in amortization and depreciation.

## aa) Basic assumptions for the calculation of the recoverable amount

Aside from market and industrial trends, general expectations regarding macroeconomic developments and in-house experience, the detailed budgets of the producing cash-generating units (CGUs) are based on the following substantial assumptions:

- Stabilization of the sales prices in the planning period and a slight increase in the forward projection phase
- Increase in the efficiency levels of solar cells
- Decreasing cost of materials
- Increased productivity

The detailed budgets of the CGU carrying SOLARPARC AG's goodwill are based on the following substantial assumptions:

- Development and sale of solar parks with SOLARWORLD modules on the basis of transfer prices according to budget
- Taking over operational management for solar parks sold in Germany at constant margins

Upon calculating the efficiency of the tested CGUs, the assumptions used as a basis are subject to estimation uncertainties especially with respect to:

- Gross profit margins
- Discount factors (discount rates)
- Development of prices for commodities and materials
- Output quantity in the observation period
- Development and distribution volume of solar parks and
- Growth rate that is used as a basis for the extrapolation of the cash flow forecasts beyond the budget period.

**GROSS PROFIT MARGINS.** Gross profit margins result from the scheduled transfer and sales prices and the planned cost development. For the development of step costs, we assumed an output quantity that does not include expansion investments. In addition, we expect increases in productivity and decreases in cost of materials. SOLARWORLD AG expects the market prices for solar modules to stabilize over the course of the next two years. Thereafter, the SOLARWORLD AG expects slightly recovering price levels.

**DISCOUNT RATES.** The discount rates reflect current market assumptions regarding the specific risks attributable to SOLARWORLD AG. The discount rate was estimated on the basis of customary average weighted capital costs (WACC). In addition, the interest rates were adjusted by market assumptions regarding all specific risks attributable to SOLARWORLD AG for which the estimations of future cash flows were not adjusted.

**DEVELOPMENT OF PRICES FOR COMMODITIES AND MATERIALS.** The estimations include the published price indices for important commodities like silicon and silver. Actual past developments of commodity and material prices are used as an indicator for future price developments and – to the necessary extent – amended by management's estimations.

**ASSUMPTIONS REGARDING OUTPUT QUANTITY.** For the determination of the value in use in the scope of the impairment tests, SOLARWORLD AG assumes an increase in the utilization of existing capacities in the annual periods 2013 and 2014 and full utilization in 2015. An increase is expected with respect to the output quantity in watt peak due to technological progress (increasing efficiency) and efficiency increase programs.

**DEVELOPMENT AND SALES VOLUME OF SOLAR PARKS.** The estimations are based on experience gained from projects processed in the past, the respective available resources and management planning.

**ESTIMATIONS OF THE SUSTAINED GROWTH RATE.** The growth rate used as a uniform basis in the phase of sustained growth amounts to 1.0 percent for all CGUs. This equals half of the estimated long-term inflation rate (source: International Monetary Fund) and thus equals the proportion of expected increases in prices that management believes can be passed on to the customer in the long-term.

#### bb) Results of impairment tests

In the reporting year, the result of the impairment test on the level of the CGUs with regard to fixed assets and goodwill was as follows:

The two production sites for wafers in Freiberg that each constitutes an independent CGU together form the CGU-group “Produktion Wafer Deutschland” that is allocated to the “Production Germany” segment. The “Freiberg Gewerbegebiet Süd” site, which had temporarily been shut down in the prior period, were written down by another € 5.7 million (prior year € 81.2 million) to updated net realizable values as assessed by an expert evaluation. For the measurement of the “Freiberg Industriegebiet Ost” site, a value in use was determined that falls short of the carrying amount of the CGU by € 83.9 million (prior year € 59.4 million) was determined. This impairment loss is attributable to the further price decline for solar wafers due to the overcapacities on the global wafer market. The impaired carrying amounts were taken into account for the impairment test of the carrying amount assigned to the CGU “Produktion Wafer Deutschland” level. The recoverable amount of the group of CGUs equals the total of the recoverable amounts of the two CGUs.

With regard to the CGU “Wafer USA” that produces mono-crystalline wafers at the Hillsboro (Oregon, USA) site and that is part of the “Production U.S.” segment, the recognition of another impairment loss of € 10.1 million (prior year € 91.1 million) became necessary on the basis of updated net realizable values as assessed by an expert evaluation. Net realizable values assessed by an expert assessment were at hand for the substantial assets. The net realizable values of the remaining assets were derived from these amounts.

An additional impairment loss of € 75.0 million (prior year € 42.8 million) was recognized on the basis of the value in use of the CGU “Zelle USA” that comprises the cell production at the Hillsboro (Oregon, USA) site and that is also assigned to the “Production U.S.” segment. The impairment loss reflects the further decline in prices for solar cells and the current cell production costs at the Hillsboro site.

With regard to the CGU “Modul Camarillo”, which is assigned to the “Production U.S.” segment, an additional impairment loss of € 2.2 million (prior year € 13.4 million) was recognized on the basis of the net sales value estimated by an expert’s assessment.

The goodwill originating from the acquisition of SOLARPARC AG was assigned to SOLARPARC AG’s CGU “Großanlagengeschäft” that comprises the development and distribution of high-duty plants and subsequent management of these plants. The CGU is part of the “trade” segment. The impairment test conducted in the reporting period resulted in a full devaluation of the recognized goodwill in an amount of € 4.642k.

Moreover, impairment charges of € 7,974k (prior year € 13,822k) were recognized for individual assets.

## 33. OTHER OPERATING EXPENSES

in k€	2012	2011
Impairment losses on prepayments	88,722	0
Maintenance expenses	21,028	26,174
Selling expenses	15,732	20,733
External staff expenses	15,565	25,003
Marketing expenses	13,889	25,580
Legal fees, consultancy and audit expenses	11,306	7,949
Bad debt allowances and losses	9,974	23,468
Losses from currency translation	7,201	16,170
Rent and lease expenses	6,451	5,605
Research and development expenses (third party)	6,310	5,990
Travel expenses	5,622	4,662
Expenses for insurances and fees	5,347	6,083
Expenses from the addition to other provisions	4,879	1,910
Data processing expenses	4,465	5,390
Expenses in connection with other trade	3,041	20,802
Expenses from additions to warranty provision	2,610	6,170
Expenses from sewage and waste disposal	1,822	2,527
Expenses for phone, stamps, internet	1,676	1,660
Expenses relating to other periods	1,663	1,640
Expenses from derivative financial instruments	522	208
Miscellaneous other operating expenses	18,402	18,081
<b>Total</b>	<b>246,227</b>	<b>225,805</b>

The impairment losses regarding prepayments made primarily concerns prepayments of € 34.6 million and € 52.0 million for monosilane that SOLARWORLD AG paid in connection with the joint venture JSSI GmbH to Evonik and long-term silicon purchase agreements, respectively. We refer to our comments in note 5.

Rent and lease expenses include minimum lease payments from operating lease agreements in an amount of €3,341k (prior year € 2,997k).

€ 3,021k (prior year € 21,445k) of bad debt allowances and losses concern wafer customers whereas income from the reversal of customer advances amount to € 18,991k (prior year € 42,590k). With regard to the development of the bad debt allowances, we refer to note 50.

Expenses in connection with other trade mainly result from silicon sales that are not part of ordinary activities. Income from silicon sales is recognized in other operating income.

Exchange rate losses are offset by exchange rate gains of € 13,409k (prior year € 17,253k) which are recognized in other operating income (note 29).

## 34. RESEARCH AND DEVELOPMENT EXPENSES

Research and development costs of SOLARWORLD group made for a total of € 49,139k (prior year € 27,162k) in the reporting period.

## 35. FINANCIAL RESULT

## a) Result from investments measured at equity

in k€	2012	2011
Income from investments measured at equity	17	1,003
Expenses from investments measured at equity	-14,655	-1,940
<b>Total</b>	<b>-14,638</b>	<b>-937</b>

Expenses from investments measured at equity include impairment losses on the investment in JSSI GmbH (€ 11,188k) and SOLARCYCLE GMBH (€ 34k).

€ 776k of the income from investments measured at equity recognized in the prior year result from the disposal of SOLARWORLD KOREA LTD. and Solarpark M.E. Ltd in June 2011. No comparable transaction took place in the reporting period.

## b) Interest and similar income

in k€	2012	2011*
Interest income	2,280	6,421
Other financial income	126	740
<b>Total</b>	<b>2,406</b>	<b>7,161</b>

\* Comparative figures were adjusted in accordance with IAS 8.22. We refer to our comments in note 1.

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”.

## c) Interest and similar expenses

in k€	2012	2011*
Interest payable	64,170	65,482
Other financial expenses	9,345	5,338
<b>Total</b>	<b>73,515</b>	<b>70,820</b>

\* Comparative figures were adjusted in accordance with IAS 8.22. We refer to our comments in note 1.

Interest expenses exclusively consist of interest payable 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 profit-oriented employee compensation.

Other financial expenses primarily include commitment interest for credit lines that remained unutilized and expenses in connection with the restructuring of financial liabilities.

As in the prior year, borrowing costs eligible for capitalization leading to a reduction of interest expenses do not exist.

## d) Other financial result

in k€	2012	2011
<b>Net gains and losses from</b>		
financial assets and financial liabilities designated as measured at fair value	60	3,649
financial assets held for trading	-1,240	-7,391
financial liabilities measured at amortized cost	19,901	8,257
gains/losses from currency translation	-463	589
<b>Total</b>	<b>18,258</b>	<b>5,104</b>

The net result of the category “designated at fair value through profit or loss” is not influenced by changes of the credit risk.

Derivatives that are 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”.

## 36. RESULT FROM DISCONTINUED OPERATIONS

The result from discontinued operations recognized in the prior period is attributable to the solar fund SOLARPARC Deutschland I GmbH & Co. KG, which is no longer part of the consolidated subgroup SOLARPARC and thus SOLARWORLD group since the full placement of the equity of SOLARPARC Deutschland I GmbH & Co. KG on June 30, 2011. A comparable transaction did not occur in the annual period 2012.

## 37. INCOME TAXES

The following chart shows the composition of recognized tax expenses and income:

in k€	2012	2011*
Actual domestic tax expenses	4,780	21,237
Actual foreign tax expenses	165	1,786
<b>Total actual tax expenses</b>	<b>4,945</b>	<b>23,023</b>
Deferred domestic tax income	-88,133	-18,192
Deferred foreign tax expenses	206	761
<b>Total deferred tax income</b>	<b>-87,927</b>	<b>-17,431</b>
<b>Total recognized tax income (-)/expenses (+)</b>	<b>-82,982</b>	<b>5,592</b>

\* Comparative figures were adjusted in accordance with IAS 8.22. We refer to our comments in note 1.

Taxes paid or owed on income in the individual countries as well as deferred taxes are recognized as taxes on income.

Both in the reporting period and in prior years, tax losses were incurred by the US entities. IAS 12 sets high standards when it comes to recognizing deferred taxes on loss carryforwards if losses are recent. These requirements were not met at reporting date. Thus, as in the prior year, no deferred tax assets were set up with regard to loss carryforwards of US entities (potentially € 61,764k, prior year € 23,431k) in the 2012 period.

With regard to “Federal tax”, the tax loss carryforwards of the US entities amount to an equivalent of some € 372 million. They can be offset with tax gains until at least 2024 and will then gradually be forfeited in the years 2025 to 2032. These loss carryforwards concern some € 115 million in deferred tax assets. With regard to “State tax”, the tax loss carryforwards amount to some € 259 million and concern the Federal states of California (€ 120 million), Oregon (€ 134 million) and other states (€ 5.3 million). In California, they can be offset with tax gains until at least 2018. An amount of roughly € 32 million will then gradually be forfeited in the years 2019 to 2021. For the rest (€ 89 million), they will be forfeited in 2032. In Oregon, the loss carryforwards will gradually be forfeited starting in 2022 while in the other states, part of the loss carryforwards (€ 0.3 million) will be forfeited in 2014 to 2016 while the remaining € 5 million will gradually be forfeited starting in 2026. Overall, deferred tax assets of some € 22 million are attributable to these loss carryforwards.

In addition, deferred tax assets were set up for loss carryforwards that existed in SOLARWORLD AG’s fiscal unity. We expect that the existing loss carryforwards will be utilizable in full, as we anticipate that the scheduled financial restructuring measures will result in a restructuring profit and, therewith connected, the issuance of a tax release for the taxable restructuring profit.

The following chart shows unnetted and netted deferred tax assets and liabilities with regard to accounting differences in the different balance sheet items and tax loss carryforwards:

in k€	Deferred tax assets		Deferred tax liabilities	
	31.12.12	31.12.11*	31.12.12	31.12.11*
Intangible assets /property, plant and equipment	108,872	69,183	13,421	18,050
Other noncurrent assets	77	153	0	0
Current assets	47,474	30,121	3,330	6,083
Accrued investment grants	1,673	2,686	0	0
Other noncurrent liabilities	2,374	4,408	6,649	5,861
Current liabilities	3,523	2,471	1,060	3,026
Tax loss carryforwards	49,202	455	0	0
Allowances on deferred tax assets	-111,282	-89,777	0	0
<b>Total</b>	<b>101,913</b>	<b>19,700</b>	<b>24,460</b>	<b>33,020</b>
Offsetting	-22,186	-17,452	-22,186	-17,452
<b>Recognized deferred taxes</b>	<b>79,727</b>	<b>2,248</b>	<b>2,274</b>	<b>15,568</b>

\* Comparative figures were adjusted in accordance with IAS 8.22. We refer to our comments in note 1.

At reporting date, no deferred tax assets (prior year € 110k) and no deferred tax liabilities (prior year € 1,840k) were recognized in equity due to the lack of hedging relationships.

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 Dec. 31, 2012. The corresponding temporary differences make for a total of € 3,589k (prior year € 7,665k)

The substantial differences between nominal and effective tax rates in the course of the reporting year and the prior year are illustrated below:

in k€	2012	2011*
Income before taxes	-559,874	-303,350
Expected income tax rate (incl. trade tax)	30.0 %	30.0 %
<b>Expected income tax result</b>	<b>-167,962</b>	<b>-91,005</b>
Deviating domestic and foreign tax burden	-4,064	-22,486
Actual taxes relating to other periods	-630	7,715
Taxes from non-deductible expenses	2,353	3,217
Tax reductions due to tax exempt gains	-6,286	-8,821
Deferred taxes on new loss carryforwards not set up	76,890	22,747
Goodwil impairment	1,393	8,876
Foreign withholding tax	-17	1,319
Allowances on other deferred tax assets	9,266	82,216
Other deviations of tax expenses	6,076	1,814
<b>Recognized income tax result</b>	<b>-82,982</b>	<b>5,592</b>
Effective income tax rate	14.8 %	-1.8 %

\* Comparative figures were adjusted in accordance with IAS 8.22. We refer to our comments in note 1.

### 38. 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. As in the prior year, the key figure “diluted earnings per share” was not applicable as option rights or conversion privileges are not outstanding. The consolidated result for the year results exclusively from continued operations. The weighted average of the shares in circulation used as a basis for the determination of earnings per share was recalculated per reporting date and now amounts to 110,795,393.

### 39. STATEMENT OF COMPREHENSIVE INCOME

SOLARWORLD group decided to present all items of income and expense recognized in a period in two statements, a separate income statement and a statement of comprehensive income. The statement of comprehensive income directly follows the income statement.

Since the amounts that were re-classified from equity to result of the period or allocated to cost of non-financial assets and the profits and losses not shown through profit or loss including any tax effects are presented in the statement of comprehensive income, no further disclosures are required at this point.

**40. SEGMENT REPORTING****a) Segment disclosures**

The presentation of segment reporting follows the “full management approach”. As in the prior year, the following reportable segments were identified:

- Production Germany
- Production U.S.
- Trade

This is due to SOLARWORLD AG’s prevailing internal organization, reporting and steering structure that focuses on the production and distribution of solar systems and solar modules. The greater objective of the group is to increase the existing synergy and efficiency potentials of the entire value added chain and thus achieve strategic competitive advantages for the marketing of solar systems.

No operating segments were combined for setting up the aforementioned reportable operating segments.

Each of the two production segments combines regionally related and fully integrated manufacturing activities in Germany and the U.S. and each include the manufacturing areas of the entire value added chain.

The operating segment “Trade” comprises the worldwide distribution of solar systems and solar modules and the operations of SOLARPARC AG.

The category “All other segments” includes various business activities of the group that did not materially affect the group’s financial position and financial performance in 2012.

As in the prior year, the accounting principles applicable for the consolidated entity also apply for the individual segments.

## INFORMATION ON OPERATING SEGMENTS FOR THE ANNUAL PERIOD 2012 // IN M €

	Production Germany	Production U.S.	Trade	All other segments	Reconciliation	Consolidated
<b>Revenue</b>						
External revenue	23	1	581	1	0	606
Inter-segment revenue	332	177	2	21	-532	0
<b>Total revenue</b>	<b>355</b>	<b>178</b>	<b>583</b>	<b>22</b>	<b>-532</b>	<b>606</b>
<b>Result</b>						
<b>Operating result (EBIT)</b>	<b>-147</b>	<b>-161</b>	<b>-164</b>	<b>1</b>	<b>-21</b>	<b>-492</b>
Financial result						-67
Income before income taxes						<b>-559</b>
Income taxes						83
Result from continued operations						-477
Result after tax from discontinued operations						0
<b>Consolidated net result</b>						<b>-477</b>
Regular amortization and depreciation	-49	-26	-6	-6	0	-87
Impairment charges	-94	-88	-5	-3	0	-190
Material non-cash income	87	11	0	1	0	99
Material non-cash expenses	-97	-27	-69	0	0	-193

## INFORMATION ON OPERATING SEGMENTS FOR THE ANNUAL PERIOD 2011\* // IN M €

	Production Germany	Production U.S.	Trade	All other segments	Reconciliation	Consolidated
<b>Revenue</b>						
External revenue	262	5	863	1	-86	1,045
Inter-segment revenue	485	416	2	9	-912	0
<b>Total revenue</b>	<b>747</b>	<b>421</b>	<b>865</b>	<b>10</b>	<b>-998</b>	<b>1,045</b>
<b>Result</b>						
<b>Operating result (EBIT)</b>	<b>48</b>	<b>-200</b>	<b>-85</b>	<b>-10</b>	<b>3</b>	<b>-244</b>
Financial result						-59
Income before income taxes						<b>-303</b>
Income taxes						-6
Result from continued operations						-309
Result after tax from discontinued operations						2
<b>Consolidated net result</b>						<b>-307</b>
Regular amortization and depreciation	-61	-40	-6	-6	0	-113
Impairment charges	-153	-156	0	0	-30	-339
Material non-cash income	147	5	0	0	0	152
Material non-cash expenses	-56	-25	-54	0	34	-101

\* Comparative figures were adjusted in accordance with IAS 8.22. We refer to our comments in note 1.

With regard to inter-segment revenue, the reconciliation column includes eliminations from expense and income consolidation.

Reconciliation of the balance of the segment results to the consolidated result is mainly attributable to intra-group profit elimination and other immaterial consolidation entries affecting profit or loss.

Revenue of the category "All other segments" primarily comprises the following:

in m€	2012	2011
Research and development services (intra-group)	21	9
Income from power input	1	1
<b>Total</b>	<b>22</b>	<b>10</b>

The material non-cash income and expenses includes reversals of received advances and reversals of accrued investment grants and impairment losses for inventories, receivables and prepayments made, respectively.

**b) Disclosures on group level**

With respect to the breakdown of revenue in accordance with products, we refer to the information provided in note 27.

No external customer accounts for more than 10 percent of SOLARWORLD group's revenue at once.

Allocation of revenue to individual countries or regions is carried out on the basis of invoicing. Revenue is considered generated in the country in which the addressee of the invoice is domiciled.

in m€	Revenue		Intangible assets, property, plant and equipment and investment property	
	2012	2011*	31.12.12	31.12.11
Germany	300	443	381.9	574
Rest of Europe	114	186	0	0
Asia	20	112	0	0
U.S.	140	223	121.7	218
Others	32	81	0	0
<b>Total</b>	<b>606</b>	<b>1,045</b>	<b>504</b>	<b>792</b>

\* Comparative figures were adjusted in accordance with IAS 8.22. We refer to our comments in note 1.

## COMMENTS ON THE BALANCE SHEET

## 41. DEVELOPMENT OF INTANGIBLE ASSETS AND PROPERTY, PLANT AND EQUIPMENT AND INVESTMENT PROPERTY

Composition and development of intangible assets, property, plant and equipment as well of investment property can be taken from the following chart:

in k€	Cost					As at Dec. 31, 2012
	As at Jan. 1, 2012	Reclassifi- cations	Additions	Disposals	Currency difference	
<b>I. Intangible assets</b>						
1. Concessions, industrial property and similar rights and assets, and licenses in such rights and assets	32,950	2,360	3,549	7,347	-147	31,365
2. Goodwill	39,524	0	0	0	0	39,524
3. Exploration and evaluation	210	0	682	0	0	892
4. Prepayments	339	0	43	124	0	258
	<b>73,023</b>	<b>2,360</b>	<b>4,274</b>	<b>7,471</b>	<b>-147</b>	<b>72,039</b>
<b>II. Property, plant and equipment</b>						
1. Land and buildings	354,932	10,194	6,125	1,218	-2,468	367,565
2. Technical equipment and machinery	1,020,208	34,557	25,751	91,416	-6,973	982,128
3. Other equipment, factory and office equipment	38,562	932	1,373	1,246	-143	39,479
4. Construction in progress and prepayments	53,230	-43,920	9,918	1,988	-167	17,074
	<b>1,466,932</b>	<b>1,763</b>	<b>43,168</b>	<b>95,867</b>	<b>-9,751</b>	<b>1,406,245</b>
<b>III. Investment property</b>	<b>27,993</b>	<b>-4,123</b>	<b>2,224</b>	<b>0</b>	<b>0</b>	<b>26,094</b>
	<b>1,567,948</b>	<b>0</b>	<b>49,667</b>	<b>103,338</b>	<b>-9,898</b>	<b>1,504,378</b>

in k€	Cost					As of Dec. 31, 2011	
	As of Jan. 1, 2011	Additions to consoli- dated group	Reclassi- fications	Additions	Disposals		Currency differ- ence
<b>I. Intangible assets</b>							
1. Concessions, industrial property and similar rights and assets, and licenses in such rights and assets	21,836	7,091	1,372	2,420	46	277	32,950
2. Goodwill	34,883	4,641	0	0	0	0	39,524
3. Exploration and evaluation	0	0	0	210	0	0	210
4. Prepayments	238	0	-5	108	2	0	339
	<b>56,957</b>	<b>11,732</b>	<b>1,367</b>	<b>2,738</b>	<b>48</b>	<b>277</b>	<b>73,023</b>
<b>II. Property, plant and equipment</b>							
1. Land and buildings	326,522	171	19,089	6,287	867	3,730	354,932
2. Technical equipment and machinery	789,912	48,807	74,250	107,295	12,277	12,221	1,020,208
3. Other equipment, factory and office equipment	29,701	298	2,537	6,397	618	247	38,562
4. Construction in progress and prepayments	105,857	43	-97,235	45,029	552	88	53,230
	<b>1,251,992</b>	<b>49,319</b>	<b>-1,359</b>	<b>165,008</b>	<b>14,314</b>	<b>16,286</b>	<b>1,466,932</b>
<b>III. Investment property</b>	<b>21,264</b>	<b>0</b>	<b>-8</b>	<b>6,737</b>	<b>0</b>	<b>0</b>	<b>27,993</b>
	<b>1,330,213</b>	<b>61,051</b>	<b>0</b>	<b>174,483</b>	<b>14,362</b>	<b>16,563</b>	<b>1,567,948</b>

Amortization and depreciation						Carrying amounts		
As at Jan. 1, 2012	Reclassi- fications	Scheduled additions	Impairment Charges	Disposals	Currency difference	As at Dec. 31, 2012	As at Dec. 31, 2012	As at Dec. 31, 2011
17,620	0	3,486	2,659	1,752	-121	21,891	9,474	15,330
34,882	0	0	4,642	0	0	39,524	0	4,642
0	0	0	0	0	0	0	892	210
0	0	0	0	0	0	0	258	339
<b>52,502</b>	<b>0</b>	<b>3,486</b>	<b>7,301</b>	<b>1,752</b>	<b>-121</b>	<b>61,415</b>	<b>10,624</b>	<b>20,521</b>
148,658	127	11,046	41,075	382	-1,565	198,958	168,607	206,274
549,232	-3	67,113	140,088	40,896	-5,758	709,777	272,351	470,976
21,416	3	5,050	1,085	1,036	-103	26,415	13,063	17,146
2,945	0	0	0	0	0	2,945	14,129	50,285
<b>722,251</b>	<b>127</b>	<b>83,209</b>	<b>182,248</b>	<b>42,314</b>	<b>-7,426</b>	<b>938,095</b>	<b>468,150</b>	<b>744,681</b>
762	-127	492	0	0	0	1,127	24,967	27,231
<b>775,515</b>	<b>0</b>	<b>87,187</b>	<b>189,549</b>	<b>44,067</b>	<b>-7,547</b>	<b>1,000,637</b>	<b>503,741</b>	<b>792,433</b>

Amortization and depreciation						Carrying amounts		
As of Jan. 1, 2011	Reclassi- fications	Scheduled additions	Impairment Charges	Disposals	Currency difference	As of Dec. 31, 2011	As of Dec. 31, 2011	As of Dec. 31, 2010
12,054	0	4,189	1,169	46	254	17,620	15,330	9,782
5,296	0	0	29,586	0	0	34,882	4,642	29,587
0	0	0	0	0	0	0	210	0
0	0	0	0	0	0	0	339	238
<b>17,350</b>	<b>0</b>	<b>4,189</b>	<b>30,755</b>	<b>46</b>	<b>254</b>	<b>52,502</b>	<b>20,521</b>	<b>39,607</b>
45,927	0	17,198	82,528	662	3,667	148,658	206,274	280,595
238,826	0	85,807	221,672	10,582	13,509	549,232	470,976	551,086
14,887	0	5,747	1,133	529	178	21,416	17,146	14,814
496	0	48	2,945	522	-22	2,945	50,285	105,361
300,136	0	108,800	308,278	12,295	17,332	722,251	744,681	951,856
<b>270</b>	<b>0</b>	<b>492</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>762</b>	<b>27,231</b>	<b>20,994</b>
<b>317,756</b>	<b>0</b>	<b>113,481</b>	<b>339,033</b>	<b>12,341</b>	<b>17,586</b>	<b>775,515</b>	<b>792,433</b>	<b>1,012,457</b>

**42. INTANGIBLE ASSETS**

In the scope of exploring the Eastern Ore Mountains with regard to lithium reserves, expenses of € 682k (prior year € 210k) were incurred in the reporting period, which were capitalized as an intangible asset in accordance with IFRS 6. No other self-generated intangible assets were capitalized.

**43. PROPERTY, PLANT AND EQUIPMENT**

The development of property, plant and equipment is significantly characterized by the irregular depreciation resulting from the impairment tests. For details, we refer to our comments in notes 9 and 32.

Leases in accordance with IAS 17 that would lead to capitalization of an asset do not exist.

**44. INVESTMENT PROPERTY**

The building complex AUERMÜHLE (object A) that contains the distribution center of SOLARWORLD AG is partially leased to third parties since April 1, 2011. The respective parts of the building are therefore classified investment property. The market value of these building parts amounts to € 15.4 million (prior year € 19.4 million) and, thus, falls short of their carrying amount by € 0.8 million.

The second property (object B) is leased to third parties in full since April 1, 2012. The market value of this property amounts to € 6.5 million and thus falls short of its carrying amount by € 2.2 million below its carrying amount. The difference is entirely attributable to remodeling measures that have already been done in the interest of the tenant and reimbursed by the tenant. The capitalized remodeling measure as well as the reimbursements received is reversed over the term of the lease agreement.

Independent experts determined the market values. Due to the type of the properties and the lack of comparative data, no observable market transactions were used as a basis for the assessment of the fair values of the properties. Instead, the fair value was determined using the capitalized earnings method in application of the following assumptions. The property value of object B was determined on the basis of the standard land value.

	2012		2011	
	Object A	Object B	Object A	Object B
Market rent:	11.25 €/sq.m	12.00 €/sq.m	11.50 €/sq.m	12.50 €/sq.m
Loss of rent risk:	5 %	4 %	5 %	4 %
Capitalization rate:	5.80 %	5.65 %	5.50 %	5.75 %
Residual useful life:	infinite	46 years	infinite	47 years
Land value:	–	135 €/sq.m	–	135 €/sq.m

Rental income of € 1,090k (prior year € 561k) was generated with investment property in the annual period while the leased parts accounted for expenses of € 342k (prior year € 393k). Expenses of € 1,141k (prior year € 334k) were incurred with regard to the unrented parts.

Limitations regarding the disposability of investment property, contractual obligations to acquire, establish or develop investment property do not exist. Object B is subject to the contractual obligation to conduct constructional measures while all expenses relating to the fitting-out including any interest payments are borne by the tenant.

With regard to the reconciliation statement that shows the development of the carrying amount of the investment properties, we refer to the fixed asset movement schedule in note 41.

Future minimum rent payments from the leased parts are as follows:

in k€	2012	2011
Twelve months or less	1,084	660
Two to five years	1,642	825
More than five years	0	0
<b>Total</b>	<b>2,726</b>	<b>1,485</b>

#### 45. INVESTMENTS MEASURED AT EQUITY

in k€	2012	2011
QATAR SOLAR TECHNOLOGIES Q.S.C.	23,368	26,217
JSSI GmbH	0	11,188
Other investments	0	437
<b>Total</b>	<b>23,368</b>	<b>37,842</b>

SOLARWORLD AG holds a 29 percent investment in the assets and results of QATAR SOLAR TECHNOLOGIES Q.S.C. domiciled in the Emirate Qatar. Together with Qatar Foundation and Qatar Development Bank, SOLARWORLD AG is constructing a production facility for polysilicon.

The investment in JSSI GmbH, Freiberg, is held via SOLARWORLD AG and concerns a 49 percent share in the entity's assets and result. Together with EVONIK-Degussa GmbH, the company has developed a production process for solar silicon on the basis of which it now produces solar silicon. The investment was written down in full in the reporting period. We refer to note 35.

SOLARWORLD AG's 24 percent investment in SOLARCYLE GMBH, Bitterfeld/Wolfen, that was recognized in other investments in the prior year was written down in full in the reporting period. The entity is being wound up. We refer to notes 2 and 35.

In the prior period, other investments also included SOLARPARC AG's investments in partnerships under the Civil Code [BGB-Gesellschaft] that hold power grid stations and cable routes for the purpose of joint use and administration. They served both the operation of own and third party wind power stations. These investments were sold in the reporting period. We refer to note 2.

With regard to related party disclosures we refer to note 68.

The following chart includes summarized financial information regarding investments measured at equity. The amounts refer to the SOLARWORLD group's shares and not to the amount of a notional 100 percent investment.

in k€	Dec 31, 2012	Dec 31, 2011
<b>Share in assets</b>	<b>81,417</b>	<b>43,495</b>
of which current	10,410	8,873
of which noncurrent	71,007	34,622
<b>Share in liabilities</b>	<b>56,743</b>	<b>5,799</b>
of which current	17,224	4,216
of which noncurrent	39,519	1,583
<b>Share in revenue</b>	<b>6,909</b>	<b>11,154</b>
<b>Share in net result for the year</b>	<b>-12,171</b>	<b>-1,699</b>

#### 46. OTHER NONCURRENT FINANCIAL ASSETS

Other financial assets primarily include amounts classified as noncurrent for re-insurances of € 501k (prior year € 616k) 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 reporting date. The current proportion is recognized in other current financial assets (compare note 53).

#### 47. DEFERRED TAX ASSETS

In part, deferred tax assets result from accounting policies for recognition and measurement of assets and liabilities that differ from tax principles and current loss carryforwards. The development of deferred tax assets is included in the comments on tax expenses (note 37).

#### 48. OTHER NONCURRENT ASSETS

The item mainly concerns the non-current proportion of prepayments made on raw materials. We refer to our statements in note 12.

#### 49. INVENTORIES

in k€	Dec 31, 2012	Dec 31, 2011
Commodities and supplies	48,892	100,504
Work in progress	98,555	75,213
Finished goods and merchandise	64,373	153,292
Prepayments (current)	10,702	49,386
<b>Total</b>	<b>222,523</b>	<b>378,395</b>

\* Comparative figures were adjusted in accordance with IAS 8.22. We refer to our comments in note 1.

For the purpose of the breakdown above, only solar modules were qualified as finished goods of the group. In the prior year, € 13,118k of finished goods concerned wafers of DEUTSCHE SOLAR GMBH, as they were recognized in this line item while they are now allocated to work in progress.

In the reporting year, inventory impairments of € 94,488k (prior year € 77,935k) were recognized as expenses. As in the prior year, reversals of impairment losses were not conducted.

As in the prior year, restrictions on ownership or disposal did not exist.

#### 50. TRADE RECEIVABLES

in k€	Dec 31, 2012	Dec 31, 2011
Trade receivables	55,569	120,760
Receivables from construction contracts	0	2,261
<b>Total</b>	<b>55,569</b>	<b>123,021</b>

Of the trade receivables, the trade receivables of SOLARWORLD AG amounting to € 15,112k are assigned as collateral for loan obligations. The following chart illustrates the aging structure of receivables:

in k€	Dec 31, 2012	Dec 31, 2011
Neither past due nor impaired	42,159	67,866
Past due but not impaired		
- up to 30 days	6,526	29,482
- between 31 and 60 days	620	9,314
- between 61 and 90 days	184	4,595
- between 91 and 180 days	267	2,638
- between 181 and 360 days	508	3,900
- exceeding 360 days	5,048	5,226
Impaired	257	0
<b>Total</b>	<b>55,569</b>	<b>123,021</b>

With regard to trade receivables that were not impaired, an indication for the recognition of impairment losses did not exist or impairment losses did not have to be recognized due to existing collaterals. Almost half of the receivables included in the “between 1 and 90 days” cluster were redeemed within the preparation period of the consolidated financial statements. The majority of the receivables included in the “between 91 to more than 360 days” cluster result from wafer sales that mostly originate from long-term agreements. With regard to respective default risks, we refer to note 65.

The following chart illustrates the development of the bad debt allowance:

in k€	2012	2011
As per Jan 1	26,522	5,692
Utilization	-6,502	-111
Net appropriation	9,195	18,106
Addition consolidated entity	0	2,831
Currency translation	-33	4
<b>As per Dec 31</b>	<b>29,182</b>	<b>26,522</b>

#### 51. INCOME TAX ASSETS

Tax assets of € 1,054k (prior year € 35,472k) are especially due to creditable investment income tax. In the prior year, the item also included refund claims relating to corporate income and trade tax or corresponding foreign tax due to excess advance payments and necessary changes to the assessments of prior years.

#### 52. OTHER RECEIVABLES AND ASSETS

in k€	Dec 31, 2012	Dec 31, 2011
Receivable from investment subsidies	16,632	13,863
Deferred items	3,201	3,979
VAT receivables	2,908	7,847
Receivable from research and development investment subsidies	1,351	1,293
Electricity tax refund	968	2,101
Other prepayments	292	806
Miscellaneous	3,604	3,094
<b>Total</b>	<b>28,956</b>	<b>32,984</b>

Receivables from investment subsidies concern an expected payment on the basis of the statutory provisions of the Investment Subsidy Act of 2010 in accordance with resolutions of the EU Commission dated July 6, 2010 and March 23, 2011.

Unsettled receivables from electricity tax refunds result from the German Electricity Tax Act.

## 53. OTHER CURRENT FINANCIAL ASSETS

in k€	Dec 31, 2012	Dec 31, 2011
Repayment claims	123,741	0
Sub-participation Solarparks of Extremadura S.L., Spain	13,834	13,834
Security deposits	18,476	12,645
Liquid funds subject to restrictions on use	1,197	0
Derivative financial instruments	54	9,507
of which in hedging relationship: k€ 0 (prior year € 7,613)		
Other borrowings	0	4,877
Investments SOLARPARC Deutschland I GmbH und Co. KG	0	2,871
Other financial assets	291	375
<b>Total</b>	<b>157,593</b>	<b>44,109</b>

Repayment claims result from prepayments relating to long-term purchase contracts for silicon that most probably violate EU anti-trust laws and therefore are or become null and void. As a consequence, the prepayments made were reclassified and recognized as repayment claims in the line item other financial assets. We refer to our comments in note 5.

Bank balances subject to restraints on disposal serve as collateral for utilized bank guarantees.

Derivative financial instruments include commodity swaps with overall market values amounting to € 44k (prior year € 81k) that are not part of a hedging relationship. In the reporting period, mirror image commodity swaps with negative market values did not exist.

The sub-investment in Solarparks of Extremadura S.L., Spain, results from a cooperation agreement with a wholly owned subsidiary of Deutsche Bank AG (DB), in which DB grants SOLARPARC AG the right to participate in the result from marketing or alternatively the operation of solar parks in Extremadura (Spain). The recognized carrying amount of the sub-investment offsets an amount payable to DB of € 12,667k (compare note 57), which DB can claim at any time.

The investment in the solar fund SOLARPARC Deutschland I GmbH & Co. KG of € 2,871k recognized in the prior period was sold at carrying amount in the reporting period.

## 54. LIQUID FUNDS

Liquid funds almost entirely concern bank balances. At reporting date, these were invested in – mostly short-term – fixed term deposits and day-to-day money with different banks. Bank accounts with a credit balance of € 11,780k are subject to pledge agreements. An additional minimum cash at hand of € 372k needs to be available in the scope of project financing of photovoltaic facilities. Thus, this amount is not at the group's free disposal.

**55. ASSETS AND LIABILITIES HELD FOR SALE**

SOLARWORLD AG intends to sell a machine that is no longer used within the next twelve months. The search for a buyer has already started. The impairment loss that resulted from measuring this asset at lower of carrying amount and fair value less costs to sell at the time of reclassifying it as held for sale amounted to € 2,837k.

Assets held for sale did not exist in the prior period.

**56. EQUITY****a) Subscribed capital**

At reporting date, the capital stock amounts to € 111.72 million (prior year € 111.72 million) and only includes common shares, namely 111,720,000 non-par bearer shares.

**b) Authorized capital**

The shareholders' meeting of May 20, 2010 revoked the capital stock increases authorized in previous shareholders' meetings and authorized the board of directors for a maximum period of five years, i. e. until May 20, 2015, to increase – upon approval of the supervisory board – the capital stock once or more often by up to an overall amount of € 55,860,000 by issuing new bearer or registered shares for cash contribution or contribution in kind.

**c) Conditional capital**

SOLARWORLD AG does not have any conditional capital.

**d) Treasury shares**

By resolution of the shareholders' meeting of May 20, 2010, the board of directors was authorized to purchase treasury shares. In accordance with § 71 para. 1 No. 8 AktG, the authorization is subject to a fixed term, expires per midnight of May 20, 2015, and is limited to an extent of up to 10 percent of the capital stock.

At December 31, 2012, SOLARWORLD AG owns a total of 924,607 treasury shares. Thus, the number of treasury shares equals that of the prior period.

The weighted average of the shares in circulation used as a basis for the determination of the result per share was recalculated per reporting date and amounts to 110,795,393.

**e) Other reserves****Currency translation reserve**

The currency translation reserve contains differences arising from currency translation in the scope of translating annual financial statements of foreign subsidiaries.

**Hedging reserve and AfS reserve**

An amount of € 0k (prior year € 3,941k) of the hedging reserve concerns gains and losses from hedging relationships that were classified as effective in the scope of cash flow hedges. As in the prior year, an AfS reserve does not exist from the change of the fair value of the assets (AfS assets) available for sale. With regard to deferred taxes set off against the hedging reserve we refer to note 37.

**f) Non-controlling interests**

Non-controlling interests recognized in the prior year concern the interests in SOLARPARC AG that SOLARWORLD AG did not own at the time. Per December 31, 2012, SOLARWORLD AG's voting rights in SOLARPARC AG amount to 100 percent. We refer to our comments in note 2.

**g) Dividend distribution**

Subsequent to the approval of the shareholders' meeting on May 24, 2012, the owners of fully paid common shares received a dividend of € 0.09 per share for the annual period 2011 (total amount: € 9,972k).

**57. NONCURRENT AND CURRENT FINANCIAL LIABILITIES**

in k€	Dec 31, 2012	Dec 31, 2011
Bonds	550,915	554,071
Issued assignable note loans	356,221	380,789
Issued senior notes (US-Private Placement)	0	135,271
Bank loans	64,043	154,449
Purchase price obligation AUERMÜHLE	16,377	16,426
Payment obligation sub-investment Solarparks of Extremadura S.L., Spain	12,667	12,667
Deposits from toll manufacturers	0	12,490
Derivative financial instruments	199	585
of which in hedging relationship: € 0 (prior year k€ 368)		
Other	4,359	5,121
<b>Total</b>	<b>1,004,781</b>	<b>1,271,869</b>

Bank loans are collateralized by land charges in an amount of € 6.5 million (prior year € 13.2 million) and customary chattel mortgages of property, plant and equipment of € 5.7 million (prior year € 38.7 million) for which the consolidated entities are liable. The chattel mortgages exclusively concern photovoltaic facilities operated by SOLARWORLD group. In addition, minimum cash in hand amounts of € 0.4 million (prior year € 2.6 million) have to be maintained at the borrowing banks for project financing of photovoltaic facility projects. The decrease in the amounts of the reporting period as compared to the prior year is primarily due to the sale of the wind power plants in 2012. We refer to our comments in note 2.

The decrease in financial liabilities is mainly a result to the redemption of loans in the reporting period. Moreover, financial liabilities of € 18.4 million were assumed by the purchaser in the scope of the sale of SOLARPARC AG's wind operations.

Per December 31, 2012, financial liabilities of € 403.6 million were reclassified from noncurrent to current as certain financial covenants could not be met at the end of the period, which entitled the creditors of these financial liabilities to demand premature repayment of the loans. We refer to our comments in note 65e.

In the prior period, deposits from toll manufacturers are payments received from toll manufacturers at balance sheet date regarding SOLARWORLD products that are to be processed and will only be returned after successful processing. At the end of the period, no products that require further processing remain with any toll manufacturers. Thus, a financial liability is not recognized.

The purchase price obligation AUERMÜHLE results from concluded options that entitle SOLARWORLD AG and the seller, Solar Holding Beteiligungsgesellschaft mbH, to acquire and dispose of another 45 percent of the shares in AUERMÜHLE.

The payment obligation for the sub-investment Solarparks of Extremadura S.L., Spain, is connected with the sub-investment in Solarparks of Extremadura S.L., Spain, recognized in other financial assets. We refer to our comments in note 53.

#### 58. 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.

The development of the accrued investment grants throughout the year is significantly characterized by recorded impairment charges in the scope of the impairment tests. We refer to note 32.

#### 59. NONCURRENT AND CURRENT PROVISIONS

in k€	As at Jan 1, 2012	Utilization	Reversal	Addition	Currency translation	As at Dec 31, 2012
Warranties	21,000	1,208	1,733	3,484	-87	21,457
Pensions	8,021	431	0	389	0	7,979
Restoration obligations	5,102	466	2,277	105	-47	2,417
Contingent losses from pending contracts	1,031	958	0	2,287	-5	2,355
Grant repayments	0	0	0	0	0	0
Litigation risks	0					0
Other provisions	10,120	808	14	3,988	-5	13,281
<b>Total</b>	<b>45,274</b>	<b>3,870</b>	<b>4,024</b>	<b>10,253</b>	<b>-144</b>	<b>47,489</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 percent of all of SOLARWORLD group's module revenue. This lump sum rate represents the current estimation of the discounted total expenses over the entire term of the performance guarantee (performance guarantee is granted for a period of 25 years). Thus, it is subject to compounding at matched maturity interest rate. In the reporting period, this makes for interest expenses of € 874k (prior year € 566k), which are included in other financial expenses (compare note 35).

The provision for building restoration obligations concerns tenant fixtures that have to be removed by SOLARWORLD group after expiration of the lease term. In addition, the provision includes the obligation to restore surface areas used for the operation of photovoltaic facilities once the lease term expires. Due to the noncurrent nature of the provision, it is subject to compounding at matched maturity interest rate. In the reporting period, this makes for interest expenses of € 202k (prior year € 220k), which are included in other financial expenses (compare note 35)

The addition to the provision for contingent losses primarily results from unfavorable procurement contracts..

The increase in other provisions is mainly due to provisions set up for a voluntary take-back obligation SOLARWORLD AG announced for modules put on the market after January 1, 2011.

Other provisions also include a provision for litigation risks in an amount of € 1,295k (prior year € 1,242k).

### 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 amount of pay at the time of retirement.

The following measurement parameters were uniformly used as a basis for calculating the defined benefit obligation (DBO):

	Dec 31, 2012	Dec 31, 2011
Discount rate	3.8 %	5.0 %
Future salary increase	0.0 %	0.0 %
Future pension increase	2.0 %	2.0 %

The Heubeck standard tables RT 2005 G were used with regard to mortality and invalidity.

Reconciliation of DBO with the balance sheet is illustrated below:

in k€	Dec 31, 2012	Dec 31, 2011
Measured obligation	8,605	7,772
Unrecognized actuarial losses (-)/gains (+)	-626	249
<b>Pension provision</b>	<b>7,979</b>	<b>8,021</b>

The following chart illustrates the DBO's development:

in k€	2012	2011
Extent of obligation per Jan 1	7,772	7,682
Interest payable	389	402
Current service cost	0	4
Pension payments and other utilizations	-431	-414
New actuarial losses (+)	875	98
<b>Extent of obligation per Dec 31</b>	<b>8,605</b>	<b>7,772</b>

The following DBO-amounts were recognized for defined benefit plans in the current and prior reporting periods:

in k€	2012	2011	2010	2009	2008
Extent of obligation per Dec 31	8.605	7.772	7.682	7.470	7.407

Unredeemed actuarial gains can be taken from the following chart:

in k€	2012	2011
As per Jan 1	249	347
Addition	0	0
Reversal	-875	-98
As per Dec 31	-626	249

#### 60. OTHER NONCURRENT AND CURRENT LIABILITIES

in k€	Dec 31, 2012	Dec 31, 2011
Customer advances	34,202	103,381
Outstanding invoices	10,025	9,924
Other personnel obligations	8,238	10,199
VAT	7,655	4,817
Profit-oriented employee compensation	1,361	8,081
Contribution obligation	0	4,073
Other	11,051	8,829
<b>Total</b>	<b>72,532</b>	<b>149,304</b>

\* Comparative figures were adjusted in accordance with IAS 8.22. We refer to our comments in note 1.

Customer advances mainly concern advances from long-term wafer purchase agreements.

Other personnel liabilities substantially consist of employee bonuses, outstanding wages and salaries and holiday entitlements.

The recognized liability from profit-oriented employee compensation only includes the employer's share of social security contributions regarding obligations from prior annual periods. Employee entitlements that originated more than 12 months prior to the end of the annual period were netted with the corresponding insolvency protection amount. We refer to our comments in note 24. Profit-oriented employee compensation was not recognized in the reporting period. Interest payable from interest expenses from liabilities for profit-oriented employee compensation amounts to € 763k (prior year € 1,007k) and is included in interest payable (compare note 35).

The contribution obligation recognized in the prior period concerned the equity addition called upon by QATAR SOLAR TECHNOLOGIES Q.S.C. in December 2011 that was agreed on in the scope of the "Shareholder Agreement" dated April 1, 2010. The respective liability was paid in the reporting period.

**61. 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 37).

**62. INCOME TAX LIABILITIES**

The item includes corporation, trade and capital yields tax assessed by the tax authorities and calculated or estimated by the consolidated entities as well as corresponding foreign taxes resulting from tax laws.

## OTHER DISCLOSURES

## 63. OTHER FINANCIAL LIABILITIES

in Mio. €	Dec 31, 2012	Dec 31, 2011
<b>Order commitments from commodity and license agreements</b>		
- within one year	37	274
- between 1 and 5 years	33	976
- more than 5 years	3	362
<b>Order commitments from investments in fixed assets</b>		
- within one year	13	22
- between 1 and 5 years	0	0
- more than 5 years	0	0
<b>Obligations from perennial rent agreements</b>		
- within one year	2	3
- between 1 and 5 years	4	6
- more than 5 years	2	6
<b>Total</b>	<b>94</b>	<b>1,649</b>

The obligations from multi-year rental agreements mostly concern office buildings and vehicles. The terms of the lease agreements for buildings and vehicles run from 3 to 11 and 3 and 4 years, respectively. The lease agreements for vehicles do not include any significant purchase or extension options. One lease agreement for a building includes the option to extend the contract twice by five years each. The contracts do not impose any restrictions on SOLARWORLD AG. For further details on the decrease in financial liabilities for order commitments from commodity contracts we refer to our comments in note 5.

## 64. CONTINGENCIES AND EVENTS AFTER BALANCE SHEET DATE

A comprehensive presentation of corporate risks and events after 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.

**Necessary restructuring and positive going concern prognosis.**

In light of anti-competitive market conditions, the Management Board in consultation with the Supervisory Board of SOLARWORLD AG had the company's business planning for the years ahead – in particular its projected earnings and financial planning – reviewed by an external expert.

On January 24, 2013, in accordance with § 15 of the German Securities Trading Act (Wertpapierhandelsgesetz, WpHG), SOLARWORLD AG published an ad-hoc notification announcing the following: Based on corporate planning for the current and future years, which has been validated by external experts, the management assumes that serious reductions in the company's liabilities will be necessary, affecting in particular its issued bonds and assignable loans (Schuldscheindarlehen). At the same time, SOLARWORLD AG assumes the possibility more likely than not that it will be able to implement the necessary financial restructuring and necessary operational measures – in the interests of all parties. This therefore results in a positive going concern prognosis.

Since the publication of the ad-hoc announcement, the Management Board has had this going concern forecast reviewed on an ongoing basis. With the announcement of the need for restructuring, constructive negotiations were entered into. In particular, these include talks with SOLARWORLD AG's main lenders. These are the creditors of SOLARWORLD AG assignable loans (Schuldscheindarlehen). During the course of these talks, the aim is to reach agreement on a restructuring proposal, which can then be presented to the bondholders of the two bonds mentioned above and – if necessary – to the shareholders' meeting of SOLARWORLD AG with a request to draft the resolutions necessary to implement a restructuring concept, which is still to be developed.

#### **Reorganization of Management Board departments at SOLARWORLD AG.**

On February 7, 2013, SOLARWORLD AG and Boris Klebensberger came in best consent to a mutual agreement on the termination of Mr. Klebensberger's position on the Management Board. As Chief Operating Officer (COO), Boris Klebensberger had been responsible for the areas of production, technology and product development as well as IT. The areas of responsibility previously belonging to the COO were integrated in the four remaining departments of the Management Board. Furthermore, SOLARWORLD created the new position of Bereichsvorstand at the production sites in Freiberg/Germany and Hillboro/U.S. respectively. The reorganization is designed to achieve rapid implementation of planned measures and projects.

#### **EU to register Chinese solar imports.**

On March 6, 2013, the European Commission started registration of solar products imported into the EU from China in anticipation of possible anti-dumping and countervailing duties. Ever since, importers of solar power modules, solar cells and solar wafers have had to specify at customs whether the products were imported from China or have been produced mainly in China. Importers may pay duties on such registered products if retroactive measures are imposed.

By early June 2013, the European Commission will make a preliminary decision on anti-dumping. If anti-dumping tariffs are imposed, they can be collected 90 days retroactively, therefore from March 2013.

#### **SOLARWORLD AG no longer listed in TecDAX since March 2013.**

As at March 18, 2013, the share of SOLARWORLD AG was excluded from the selective index TecDAX. The working group for indices of Deutsche Börse (German Stock Exchange) explained its decision by the comparatively low market capitalization of the SOLARWORLD stock.

#### **Large-scale projects sold in the U.S. and in Germany with a total capacity of about 45 MW.**

At the end of the first quarter 2013, SOLARWORLD was able to sell two large-scale projects which are located in the Mojave Desert, California. The projects have an overall nominal capacity of 25 MW. In Germany, SOLARWORLD sold another solarpark in early April. Located at the Pütznitz Peninsula, Mecklenburg-Western Pomerania, it has a nominal capacity of 21.3 MW. All parties agreed that the terms of the purchases would be confidential. Having sold these projects has improved the group's liquidity and strengthened its international position in this business area.

### **65. CAPITAL MANAGEMENT AND FINANCIAL INSTRUMENTS**

#### **a) Management of capital structure**

SOLARWORLD group's capital management is especially aligned to ensure the group's financing. This includes the safeguarding of a constant level of minimum liquidity that is available. Directly managed by the executive board, SOLARWORLD AG is responsible for planning and monitoring the group's liquidity as well as the raising of capital. Short-term liquidity management is carried out with a planning horizon of 13 weeks. The corresponding planning is updated every two weeks. In addition to the cash flow from operating activities, the group uses different capital market instruments like bonds and promissory notes. In the light of the difficult environment the solar industry is facing when it comes to financing, refinancing with these types of capital market instruments is currently possible

only to a very limited extent. Thus, the capital management efforts are focused on adjusting existing loan obligations to the earning power and financial requirements of the company. We refer to our comments in note 65e and the management report.

#### **b) Principles and objectives of financial risk management**

In its capacity as an internationally operating group, SOLARWORLD AG is exposed to market, credit and liquidity risks with regard to its assets, liabilities and future transactions already set and planned. Objective of financial risk management is the limitation of these risks by way of operating and finance-oriented activities.

Main features of financial policies are agreed upon in the board of directors and with the respective subsidiaries on a regular basis. Selected derivative and non-derivative financial instruments are utilized to limit or take risks in a controlled way, 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 short- to medium-term 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 board of directors on a regular basis.

Derivative financial instruments are regularly used as hedging instruments but not for trading or speculation purposes. To exploit short-term market fluctuations, possibly existing hedging instruments are closed out economically. 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, it is SOLARWORLD group's primary objective to minimize risks from the change of market prices or the creditworthiness of creditors and to obtain a return rate at money market level in the process. SOLARWORLD group therefore mostly invests uncommitted liquid funds in demand deposits (fixed-term deposits and day-to-day money). To limit the default risk, demand deposits are only placed with leading financial institutes with a credit rating in the investment grade area. Moreover, central management and broad diversification of the investments with regard to debtors works against the establishment of risk concentration.

#### **c) Market risks**

With respect to market risks, SOLARWORLD group is especially prone to risks from the change in currency translation, commodity prices 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 liabilities, 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.

Risks from the change of commodity prices result from commodity derivatives concluded for hedging purposes with regard to the corresponding commodity purchases.

**aa) Currency risks**

SOLARWORLD group's currency risks mainly result from 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 and influence the group's cash flow only upon disposal of the subsidiary are not hedged. However, hedging of these risks is not entirely ruled out in the future.

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 exposed to foreign currency risks in connection with foreign currency transactions already set and planned. These mainly concern transactions in US\$ in connection with long-term contracts for the procurement of raw materials. As in the prior year, no hedging relationships existed for these transactions at balance sheet date.

Aside from a proportion of liquid funds and trade receivables and liabilities, the material financial instruments are mainly denominated in functional currency. Hence, exchange rate changes basically influence the result only with regard to these foreign currency items.

If the Euro revalues (devalues) towards the US\$ by 10 percent, this will make for a negative (positive) effect on earnings before income tax of € 967k. If the Euro revalues (devalues) towards the British pound by 10 percent, this will make for a negative (positive) effect on earnings before income tax of € 481k. With regard to all other changes in exchange rates, the group's currency risk is insignificant.

**bb) Interest risks**

At reporting date, all borrowed capital of the group was subject to fixed-interest rates. As uncommitted liquid funds are mainly invested for the short-term, SOLARWORLD faces an interest risk on the deposit side. Moreover, the group is subject to interest risks in connection with an interest rate limit transaction in form of a maximum rate agreement (cap) as well as an interest swap, neither of which is designated into a hedging relationship.

If the market interest rate level increases by 50 basis points, the positive effect on earnings before tax would amount to € 1,175k (prior year € 3,941k). If the market interest rate level decreases by 50 basis points, the negative effect on earnings before tax would amount to € 1,131k (prior year € 3,539k).

**cc) Other price risks**

In addition, SOLARWORLD group concluded commodity derivatives to hedge the risk of increasing silver and aluminum prices. As the derivatives are not integrated in a valid hedging relationship, changes in the derivatives' value affect the earnings before tax.

If the silver price rate increased or decreased from – at reporting date – some US\$ 30/kg to US\$ 45/kg or US\$ 20/kg, the earnings before tax would be € 746k higher or € 439k lower, respectively.

If the aluminum price rate increased or decreased from – at reporting date – some US\$ 2,094/t to US\$ 2,800/t or US\$ 1,500/t, the earnings before tax would be € 193k higher or € 162k lower, respectively.

**d) Credit risks**

For the most part, SOLARWORLD group's uncommitted liquidity is invested in demand deposits with German banks. Thus, the default risk is considered marginal in this respect.

With regard to supplies to non-group customers, 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 credit risks, receivables from non-group module sales are mostly secured via credit insurances. Hence, the respective credit risk is regarded rather remote.

With respect to receivables from wafer sales that mainly originate from long-term contracts, credit insurances do not exist for the most part as these customers have paid extensive advances, which are non-refundable especially in the event of insolvency. Thus, the respective credit risk is economically provided for.

SOLARWORLD group shows extensive repayment claims from silicon suppliers that are not secured. The claims are against large and established suppliers in the silicon field so that the credit risk is, on principle, estimated rather low. However, due to the tense market environment, which also hit the established silicon suppliers hard, the credit risk increased.

For the rest, the maximum credit risk results from 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.

Contracts in connection with borrowed capital amounting to nominal € 404.5 million contain regulations that will entitle creditors to exceptional terminate the contract and demand early repayment of the loans if certain financial ratios (covenants) are not met. These financial ratios were renegotiated and standardized with all creditors in the summer of 2012. The financial ratios mainly concern key data regarding the level of indebtedness, liquidity and the operating result.

Almost all contracts in connection with borrowed capital include so-called "cross-default clauses (third party default clauses)", which govern that the creditors have an extraordinary right to cancel to the extent to that SOLARWORLD AG does not comply with its obligations from other borrowed capital.

In addition, creditors of borrowed funds in a nominal amount of € 931 million are entitled to request the premature repayment of the loans if a change of control takes place at SOLARWORLD AG.

SOLARWORLD group failed to meet the agreed covenants at December 31, 2012. Hence, creditors of borrowed funds in a nominal amount of € 404.5 million (mostly from issued assignable note loans) are currently entitled to an exceptional termination.

Should creditors of the issued assignable note loans make use of their right to exceptional termination and should the company fail to meet the creditors' repayment claims resulting therefrom there is a risk that the remaining creditors of borrowed capital (mainly from bonds issued in a nominal volume of € 400 million and € 150 million) will also have a right to exceptional termination due to the "cross default clauses".

Since the ad hoc announcement of January 24, 2013, the company has been constructively negotiating with the respective creditors to agree on a financial restructuring concept that in combination with the implementation of necessary operational measures will enable the company's going concern. The company's Management Board expects that to achieve this serious cuts in the scope of the company's liabilities will be necessary.

SOLARWORLD AG's going concern is inseparably linked to the successful agreement and implementation of financial restructuring, which is complex and holds significant risks due to the necessary approval of several groups of creditors, different authorities and possibly the shareholders' meeting. At this time, however, the executive board expects that an agreement on and the implementation of such financial restructuring will most probably be reached and implemented.

## f) Fair values, carrying amounts and residual terms of financial instruments in accordance with categories

The following chart shows fair values and carrying amounts of financial assets and liabilities included in the individual line items:

## Assets Dec 31, 2012

in k€	Measurement categories IAS 39		
	Held for trading	Loans and receivables	Available for sale
Trade receivables	–	55,569	–
Other receivables and assets	–	147	–
Other financial assets	54	143,705	13,834
Liquid funds	–	224,109	–
<b>Total</b>	<b>54</b>	<b>423,530</b>	<b>13,834</b>

## Assets Dec 31, 2011

in k€	Measurement categories IAS 39		
	Held for trading	Loans and receivables	Available for sale
Trade receivables	–	123,021	–
Other receivables and assets	–	837	–
Other financial assets	1,894	17,897	16,705
Liquid funds	–	553,345	–
<b>Total</b>	<b>1,894</b>	<b>695,100</b>	<b>16,705</b>

## Liabilities Dec 31, 2012

in k€	Measurement categories IAS 39			Purchase price commitment from business acquisition	Total carrying amounts
	Financial liabilities recognized at amortized cost	Financial liabilities designated as at fair value			
Financial liabilities	987,378	1,026	16,377	1,004,781	
Trade payables	32,632	–	–	32,632	
Other liabilities	1,361	–	–	1,361	
<b>Total</b>	<b>1,021,371</b>	<b>1,026</b>	<b>16,377</b>	<b>1,038,774</b>	

## Liabilities Dec 31, 2011\*

in k€	Measurement categories IAS 39			Purchase price commitment from business acquisition	Total carrying amounts
	Financial liabilities recognized at amortized cost	Financial liabilities designated as at fair value			
Financial liabilities	1,253,970	1,472	16,427	1,271,869	
Trade payables	64,433	–	–	64,433	
Other liabilities	8,081	–	–	8,081	
<b>Total</b>	<b>1,326,484</b>	<b>1,472</b>	<b>16,427</b>	<b>1,344,383</b>	

\* Comparative figures were adjusted in accordance with IAS 8.22. We refer to our comments in note 1.

Derivatives in hedging relationships	Total carrying amounts	Total fair values	IFRS 7 not applicable	Total carrying amounts
-	55,569	55,569	-	55,569
-	147	147	28,809	28,956
-	157,593	157,593	-	157,593
-	224,109	224,109	-	224,109
<b>0</b>	<b>437,418</b>	<b>437,418</b>	<b>28,809</b>	<b>466,228</b>

Derivatives in hedging relationships	Total carrying amounts	Total fair values	IFRS 7 not applicable	Total carrying amounts
-	123,021	123,021	-	123,021
-	837	837	32,147	32,984
7,613	44,109	43,234	0	44,109
-	553,345	553,345	-	553,345
<b>7,613</b>	<b>721,312</b>	<b>720,437</b>	<b>32,147</b>	<b>753,459</b>

Residual terms					
Total fair values	IFRS 7 not applicable	Total carrying amounts	up to 1 year	between 1 and 5 years	exceeding 5 years
264,105	-	1,004,781	467,226	537,555	-
32,632	-	32,632	32,632	-	-
1,361	71,171	72,532	45,503	27,029	-
<b>298,098</b>	<b>71,171</b>	<b>1,109,945</b>	<b>545,361</b>	<b>564,585</b>	<b>0</b>

Residual terms					
Total fair values	IFRS 7 not applicable	Total carrying amounts	up to 1 year	between 1 and 5 years	exceeding 5 years
1,364,833	-	1,271,869	120,981	512,184	638,704
64,433	-	64,433	64,433	-	-
8,081	141,224	149,305	67,753	69,878	24,743
<b>1,437,347</b>	<b>141,224</b>	<b>1,485,607</b>	<b>253,167</b>	<b>582,062</b>	<b>663,447</b>

In the reporting period, trade receivables do not include receivables from construction contracts (prior year € 2,261k). As in the prior period, trade liabilities do not include liabilities from construction contracts.

The fair value of financial assets and financial liabilities needs to be presented in the amount that could be generated if the respective instruments 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:

- Trade receivables, other receivables and assets, liquid funds, trade liabilities and the material proportion of the other liabilities in terms of IFRS 7 are subject to short residual terms. Thus, their carrying amounts at reporting date approximately equal fair value.
- Other liabilities include financial obligations to employees resulting from 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 and financial liabilities 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 or on the basis of conducted transactions.
- The fair value of unquoted promissory note and bank loans is estimated at a uniform 20.45 percent of the nominal value without taking maturity terms into consideration. This equals the mid-market rate of the two SOLARWORLD AG bonds traded on the capital market. The uniform measurement is derived from the current state of negotiations regarding the financial restructuring, according to which all creditors are to be treated equally irrespective of the maturity terms of the borrowed capital. This does not apply for bank loans or parts thereof if collateral is provided. These parts are recognized in full.
- 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, commodity spot and forward rates as well as volatilities. The fair value of liabilities from terminable non-group investments in a fully consolidated partnership was determined on the basis of the proportionate annual result at amortized cost as no significant value-impairing factors existed.

Financial instruments accounted for at fair value per reporting 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 affect the recognized fair value are directly or indirectly observable.

Stage 3: Processes using input parameters that significantly affecting the recognized fair value and are not based on observable market data.

in k€	Dec 31, 2012				Dec 31, 2011			
	Total	Stage 1	Stage 2	Stage 3	Total	Stage 1	Stage 2	Stage 3
<b>Financial assets measured at fair value</b>								
held for trading	54	–	54	–	1,894	–	1,894	–
derivatives in hedging relationships	0	–	0	–	7,613	–	7,613	–
available for sale	13,834	–	–	13,834	16,705	–	–	16,705
<b>Financial liabilities measured at fair value</b>								
held for trading	–199	–	–199	–	–217	–	–217	–
derivatives in hedging relationships	0	–	0	–	–368	–	–368	–
from terminable partnership interests	–827	–	–	–827	–887	–	–	–887
<b>Total</b>	<b>12,862</b>	<b>0</b>	<b>–145</b>	<b>13,007</b>	<b>24,740</b>	<b>0</b>	<b>8,922</b>	<b>15,818</b>

The following chart shows the development of financial instruments included in stage 3 over the course of the business year:

in k€	2012	2011
As per Jan 1	15,818	23,536
Addition assets	0	16,705
Profits recognized in other financial result	60	3,521
Sale	–2,871	–27,944
<b>As per Dec 31</b>	<b>13,007</b>	<b>15,818</b>

The financial instruments still held at balance sheet date that were assigned to stage 3 made for a netted profit of € 60k (prior year € 83k) in 2012, which is included in other financial result.

#### g) Net gains and losses by measurement category

To the extent to that they are assignable to financing or investment activities, 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” are included in other financial result (note 35). In addition to results from market value measurement, they also include interest, dividend and currency effects. Furthermore, net gains and losses from “financial assets held for trading” that are assignable to operations have to be taken into account as well. In total, the net gain from “financial assets held for trading” amounts to € –1,019k (prior year € –5,222k).

In addition to the exchange gains mentioned below, net gains and losses of the measurement category “loans and receivables” mainly contain impairment losses in an amount of € 9,974k (prior year € 23,468k). 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 need to take losses from currency effects into account, which were not subdivided for reasons of efficiency. The netted exchange gains for the reporting period amount to € 5,746k (prior year € 1,671k). To the extent to that they concern transactions in the scope of operations and financing transactions, they are recognized in other operating income or other operating expenses and other financial result, respectively.

In addition to a proportion of the mentioned exchange rate losses, the net result of “financial liabilities measured at amortized cost” includes income from the redemption of financial liabilities of € 19,901k (prior year € 8,257k), which are included in other financial result. We refer to note 35.

Thus, net gains from the measurement categories “loans and receivables” and “financial liabilities measured at amortized cost” amount to a total of € 15,673k (prior year net loss of € 13,540k)

With regard to “financial assets available for sale”, neither interest income (prior year € 1k) nor additions to the AfS reserve were recognized (prior year € 0k).

#### **h) Hedging**

Hedging that required hedge accounting did not exist in the reporting period.

In the prior period, SOLARWORLD group concluded an interest rate swap (“static pay – variable receipt”) with a current nominal volume of € 11,000k 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 was aimed at transforming the variable interest bank loan in fixed interest financial liabilities. The fair value of the interest rate swap amounted to € –368k at the end of the prior period. The hedge relationship was reversed in the reporting period.

To hedge existing currency risks from senior notes denominated in US\$, SOLARWORLD group had five cross currency swaps (“static pay in € – static receipt of US\$”) in the prior period, the nominal volume of which amounted to a total of US\$ 175,000k. The senior notes denominated in US\$ were designated hedged items. The hedging aimed at transforming the US\$ 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 € 7,613k at the end of the prior period. The hedge relationships were also reversed in the reporting period.

To the possible extent, proof of prospective effectiveness was provided by way of the critical terms match method or otherwise with appropriate sensitivity analyses. The retrospective effectiveness was regularly provided by means of the hypothetical derivative method. The results of the retrospective effectiveness tests ranged within a scope of 80 to 125 percent. Thus, highly effective hedging could be assumed. The unrealized gain of € 3,941k that was recognized in equity in the prior period was reversed in the reporting period.

### **66. COMMENTS ON THE CASH FLOW STATEMENT**

#### **a) 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 non-cash earnings and expenses. This makes for the cash flow from operating results. Cash flow from operating activities takes the changes of net current assets into account.

Non cash-effectives expenses and income of the business year concern income from the reversal of advances received and impairment losses of prepayments made, inventories and receivables. Income from the first-time consolidation of SOLARPARC AG was also included in the prior period.

Customer advances and prepayments especially concern noncurrent selling agreements regarding silicon wafers and noncurrent purchase agreements regarding elemental silicon. The following chart illustrates the cash inflows and outflows resulting therefrom:

in k€	2012	2011
Decrease (-) of customer advances	-7,140	-3,526
Decrease (+) of prepayments	32,066	39,127
<b>Development of cash flow</b>	<b>24,926</b>	<b>35,601</b>

The reclassification of prepayments to other financial assets is not taken into account in the aforementioned amounts as it only concerns a change in presentation while no cash effect is connected with such reclassification. We refer to our comments in note 53.

Interest paid and interest received is included in cash flow from financing activities and cash flow from operating activities, respectively.

#### b) Cash flow from investing activities

The cash flow from investing activities includes payments for asset investments as well as investment grants received for this purpose. Cash receipts from the disposal of fixed assets and financial investments are also included. Cash receipts from the disposal of fixed assets primarily result from the sale of SOLARPARC AG's wind operations. For details, we refer to our comments in note 2.

#### c) Cash flow from financing activities

Cash flow from financing activities is characterized from the repayments of financial liabilities. The most substantial components are the repayment of issued senior notes (US private placement) and the partially premature repayment of bank loans. In addition to the repayment of financial liabilities that can be taken from the cash flow, the sale of SOLARPARC AG's wind operations further reduced the financial liabilities by € 18.4 million. The purchaser assumed the corresponding liability. Dividend payments to the shareholders of SOLARWORLD AG of € 9,972k (prior year € 21,051k) are included in the cash flow from financing activities as a cash payment. Interest paid is also included.

#### d) Cash and cash equivalents

As in the prior period, cash and cash equivalents at the end of the period exclusively consist of liquid funds as recognized on the consolidated balance sheet. Cash and cash equivalents whose availability is restricted for more than 3 months are included in financial assets. In the scope of project financing of photovoltaic facilities, minimum cash in hand has to amount to € 0.4 million (prior year € 2.6 million), which are therefore not at the entity's free disposal. Furthermore, bank accounts with a credit balance of € 11,780k are subject to pledge agreements.

### 67. CONTINGENT LIABILITIES

In an amount of € 11,280, SOLARWORLD AG is liable to a bank for liabilities of a project entity from project financing of a solar park built by SOLARWORLD AG. The project entity was sold to a third party investor in the reporting period. The bank will discharge SOLARWORLD AG from liability as soon as certain formalities are met. This especially includes the provision of collateral by the project entity agreed with the latter, proof of the extent of the compensation for electricity feed-in-tariff and the inspection and approval of the solar park by a recognized expert of the bank.

### 68. RELATED PARTY DISCLOSURES

The following material transactions involving related parties were conducted in the annual period 2012:

Administration and commercial property in Bonn as well as a solar park in Freiberg were rented and leased from Dr.-Ing. E. h. Frank Asbeck and close family members, the annual rent and lease payments amounting to € 1.4 million (prior year € 1.6 million). In connection with a rent agreement, restoration expenses of € 70k were invoiced. All liabilities were settled at reporting date (prior year € 25k outstanding at reporting date).

Project services and module deliveries in an amount of € 770k (prior year € 3,294k) (excl. VAT) were rendered or supplied to Dr.-Ing. E. h. Frank Asbeck and his engineering office. At the end of the period, all receivables (prior year € 3,718k) were settled.

For other services and on-charges of costs incurred especially in connection with the management of solar parks and a wind power plant, the net amount of € 202k (prior year € 131k) was invoiced to Dr.-Ing. E. h. Frank Asbeck and his individual enterprise. Consideration received on behalf of Dr.-Ing. E. h. Frank Asbeck for wind power generation in connection with the operation of the wind power plant was credited in an amount of € 128k (prior year € 115k). At the end of the period, this resulted in a receivable from Dr.-Ing. E. h. Frank Asbeck in an amount of € 4k (prior year liability of € 25k).

Entities indirectly and directly controlled by Dr.-Ing. E. h. Frank Asbeck and close family members rendered services in an amount of € 42k (prior year € 49k) to SOLARWORLD group. In this connection, liabilities of € 49k (prior year € 59k) (including VAT) existed at the end of the period. Services and on-charges of costs incurred in the amount of € 311k (prior year € 370k) were rendered to entities indirectly and directly controlled by Dr.-Ing. E. h. Frank Asbeck and close family members. Receivables of € 51k (prior year € 130k) are unsettled at the end of the period.

At the end of the period, residual claims of € 5k (prior year € 100k) from collaterals exist against SOLARPARC Vilshofen GmbH. In January 2009, SOLARPARC AG sold the entity to Solar Holding Beteiligungsgesellschaft mbH, the majority owner of which is Dr.-Ing. E. h. Asbeck

The netted withdrawals made by Solar Holding Beteiligungsgesellschaft mbH from AUERMÜHLE amounted to € 48 million (prior year € 1.3 million contributed deposits) in the reporting period.

SOLARWORLD group rendered other services of € 0.3 million (prior year € 3.2 million) to joint ventures. At the end of the period, receivables of € 7k (prior year € 63k) are unsettled.

Goods, contract manufacturing services and other services in a total amount of € 3.5 million (prior year € 38.5 million) were purchased from joint ventures. In consideration of the accounting for supply and purchase agreements that economically constitute contract manufacturing relationships (compare note 57), total receivables amount to € 1.6 million (prior year € 0.7 million) at the end of the period. Under civil law, total liabilities and receivables from these transactions amount to € 1,268k (prior year € 1,241k) and € 2,867k (prior year € 849k), respectively.

The law firm of Schmitz Knoth Rechtsanwälte, Bonn, – a party related to the chairman of the supervisory board, Dr. Claus Recktenwald, in terms of IAS 24 – handles SOLARWORLD group's legal issues. Upon approval of the supervisory board, a total fee of € 1.3 million (prior year € 1.0 million) was rewarded for these services in 2012.

Remuneration and share ownership of members of the executive and supervisory board is listed in note 70 and presented in the remuneration report of the management report.

All transactions were carried out at arm's length.

## 69. EMPLOYEES

The average number of employees amounted to 2,537 (prior year 2,622) and falls upon the entity's areas of operations and segments as follows:

Anzahl	2012	2011
Production Germany	1,231	1,284
Production U.S.	858	890
Trade	353	359
Other	95	89
<b>Total</b>	<b>2,537</b>	<b>2,622</b>

Per December 31, 2012, the number of employees amounted to 2,355 (prior year 2,701) and included 73 trainees (prior year 82).

#### 70. EXECUTIVE BOARD AND SUPERVISORY BOARD

For assuming their duties in both parent company and subsidiaries in 2012, the members of the executive board received total remuneration payments of € 1,319k (prior year € 2,653k), which includes variable remuneration of € 0k (prior year € 1,326k).

For assuming their duties in both parent company and subsidiaries in 2012, the members of the supervisory board received remuneration payments including reimbursements in a total amount of € 240k (prior year € 320k), each plus statutory VAT. The total includes variable remuneration of net € 0k (prior year € 71k).

Individualized disclosures regarding the remuneration of the board of directors members are included in the entity's management report.

The appointed members of the Management Board are:

- Dr.-Ing. E. h. Frank Asbeck (Chief Executive Officer)
- Dipl.-Ing. Boris Klebensberger (Chief Operations Officer, until February 7, 2013)
- Dipl.-Kfm. tech. Philipp Koecke (Chief Financial Officer)
- Dipl.-Wirtschaftsing. Frank Henn (Chief Sales Officer)
- Attorney at law Colette Rückert-Hennen (Chief Information, Brand & Personnel Officer).

At reporting date, the chairman of the executive board, Dr.-Ing. E. h. Frank Asbeck, indirectly and directly owned 27.84 percent (prior year 27.8 percent) 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 with the partnership Schmitz Knoth Rechtsanwälte, Bonn
- Dr. Georg Gansen (Deputy Chairman), attorney-at-law/corporate legal counsel of Deutsche Post AG, Bonn
- Dr Dr. Alexander von Bossel, LL.M (Edinb.), attorney-at-law and partner with CMS Hasche Sigle, partnership of attorneys and tax consultants, Cologne

The chairman of the supervisory board, Dr. Claus Recktenwald, is also chairman of the supervisory board of SOLARPARC AG, member of the supervisory board of VEMAG Verlags- und Medien Aktiengesellschaft, Cologne, and member of the advisory boards of Grüenthal GmbH and Grüenthal GmbH & Co. KG, Aachen.

The deputy chairman of the supervisory board, Dr. Georg Gansen, is also deputy chairman of the supervisory board of SOLARPARC AG.

Until May 23, 2012, Dr. Alexander von Bossel, member of the supervisory board, was also a member of the supervisory board of SOLARPARC AG.

## 71. AUDITOR'S FEES

In 2012, total fees invoiced by the auditor of the consolidated financial statements, BDO AG Wirtschaftsprüfungsgesellschaft, Hamburg/Bonn, including reimbursement of costs, amount to:

- a) Year-end audit € 610k (prior year € 594k)
- b) Other certification services € 35k (prior year € 64k)
- c) Tax consulting € 0k (prior year € 12k)
- d) Miscellaneous services € 37k (prior year € 53k)

## 72. CORPORATE GOVERNANCE

On August 10, 2012, supervisory board and executive board 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.

On March 18, 2013, supervisory board and executive board temporarily limited this declaration of compliance with regard to the scheduled disclosure of the consolidated financial statements at hand within 90 days of the end of the annual period. Both the declaration of compliance and the limitation are published on the SOLARWORLD AG website @ [www.solarworld.de/investorrelations/entsprechenserklaerung//](http://www.solarworld.de/investorrelations/entsprechenserklaerung//).

Bonn, April 29, 2013

SOLARWORLD AG  
The executive board



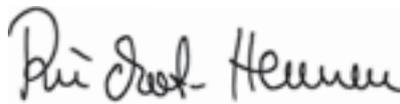
**Dr.-Ing. E. h. Frank Asbeck**  
Chief Executive Officer



**Dipl.-Wirtschaftsing. Frank Henn**  
Chief Sales Officer



**Dipl.-Kfm. tech. Philipp Koecke**  
Chief Financial Officer



**RAIN Colette Rückert-Hennen**  
Chief Information,  
Brand & personnel Officer



CHAPTER #7

# SERVICE

6 / 6

— SOLARWORLD CREATES ADDED VALUE —

*WE*

STAND FOR CLEAR  
**VALUES**

SOLARWORLD is a true pioneer in sustainability. We take responsibility for the environment and society in our production and actions. And we don't just say so. We offer a reliable guide: our sustainability reporting. SolarWorld was recently awarded the title "Green Brand." Customers can feel good about purchasing our products.



## 7 / SERVICE

**225** GLOSSARY

**231** PRODUCT GLOSSARY

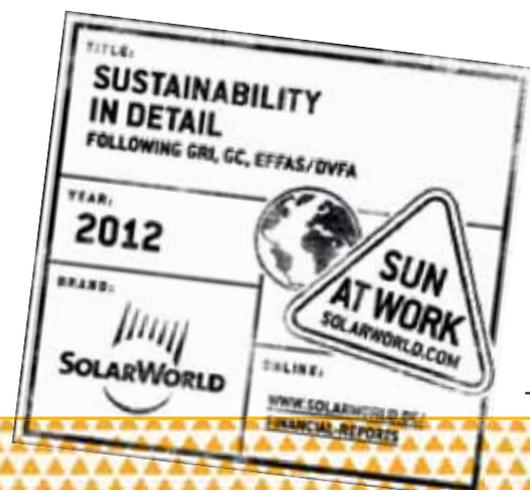
**233** LIST OF ACRONYMS AND ABBREVIATIONS

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# GLOSSARY

**A** **AIDED BRAND AWARENESS** • Value calculated from a survey when respondents recognize a particular brand name among several brand names.

**B** **BALANCE OF SYSTEM** • Costs of all components in a photovoltaic system (particularly inverter, wiring, mounting system, accessories) apart from the solar modules.

**BARREL** • Unit of volume traditionally used in the oil industry. 1 barrel is approximately 159 liters.

**BILL OF MATERIALS** • Costs of all materials, objects, components and assemblies that are needed to manufacture an end product.

**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 between more than 551 institutional investors with investment capital of more than US\$ 71 trillion. The goal is to disclose → *greenhouse gas emissions* by companies and their respective strategies concerning action on climate change. The CDP is the world's largest freely available emissions inventory for corporate → *CO<sub>2</sub> emissions*. The sixth German CDP Report was published in October 2011. SOLARWORLD AG has been regularly participating in this project since 2006 and in 2011 was named Sector Leader in the renewable energies field.

**CASH FLOW** • Cash surplus generated from ordinary business activities; an indicator of a company's self-financing strength.

**CASH FLOW STATEMENT** • 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.

**CELL** • → *Solar cell*

**CO<sub>2</sub> EMISSIONS** • → *Greenhouse gas emissions*

**CO<sub>2</sub> EQUIVALENT (CO<sub>2</sub>e)** • Contribution of a greenhouse gas to the greenhouse effect. The greenhouse gas potential of → *carbon dioxide (CO<sub>2</sub>)* is used as a comparative value to describe the global warming effect of different greenhouse gases uniformly over a certain period of time.

**COMMODITY MARKET** • A market in which raw materials or upstream products are traded. Commodities are supplies and materials such as water or electricity which must meet certain requirements to cover a particular need, but whose quality varies very little between different providers. As a result, competition is strongly price-based.

**CONSIGNMENT WAREHOUSE** • A warehouse provided by the supplier in immediate geographical proximity to the customer. Ownership of the goods does not pass to the customer until the goods are withdrawn from stock, forming the legal basis for invoicing.

**CONSOLIDATED ENTITY** • The consolidated entity comprises all companies included in the consolidated financial statements. In addition to the parent company, in principle all subsidiaries have to be included which are controlled by the parent company.

**CORPORATE CULTURE** • The fundamental beliefs, 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 and the way they deal with one another and with employees. (Source: German Federal Agency for Civic Education).

**CORPORATE GOVERNANCE** • → *German Corporate Governance Code*

**COST OF MATERIALS RATIO** • Share of the cost of materials in the overall output of a company. The cost of materials consists of the total of raw materials and supplies, goods for resale and services.

**COVENANTS** • Agreements which, for example, require a borrower to achieve defined financial ratios.

**CRYSTALLIZATION** • Process during which liquids or molten materials (e. g. → *silicon* chunks molten at high temperatures) cool down slowly under specific conditions and solidify in the form of crystals.

- D** **DAX** • The German Stock Index represents the 30 largest stock corporations in Germany listed on the Frankfurt Stock Exchange.

**DECLARATION OF COMPLIANCE** • Declaration by the Management Board and the Supervisory Board pursuant to § 161 German Stock Corporation Act (AktG) stating the extent to which they follow the recommendations of the Government Commission on the → *German Corporate Governance Code*.

**DEFERRED TAXES** • Result from differences in tax burdens where taxable profit differs from earnings in the commercial-law financial statements due to tax rules.

**DEGRADATION** • Reduction in solar cell efficiency over time.

**DEPRECIATION** • The annually increasing decline in the value of fixed assets and equipment is taken into account by systematically setting off the original cost against tax over the years of their use. Depreciation is treated as an expense for accounting purposes.

**DESIGN TO COST** • A product development approach in which a cost-optimized solution is sought for individual components, and in which life cycle costs in particular are taken into account from the development phase onward.

**DIRECTORS' DEALINGS** • Securities transactions by managers or persons/companies close to them involving stocks in their own listed company.

**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 Annual General Meeting.

- E** **EARNINGS PER SHARE** • Group earnings divided by the weighted number of stocks.

**EBIT** • Revenues after deduction of all operating costs. Earnings Before Interest and Taxes (EBIT) is usually used to evaluate a company's earnings position, particularly for international comparisons.

**EBIT MARGIN** • Shows what percentage of the operating profit before interest, tax and financial result the company has been able to generate per sales unit. Thus, it provides information on the company's earnings power.

**EBITDA** • Earnings Before Interest, Taxes, → *Depreciation* (on property, plant and equipment) and Amortization (of

→ *intangible assets*). This indicator facilitates international comparisons as it does not include national taxes.

**EINSTEINAWARD** • Award presented by SOLARWORLD since 2005 to persons who have rendered outstanding services in the area of solar energy. In addition, young scientists have been awarded the SOLARWORLD Junior Einstein Award since 2006 for their scientific work in specialist areas relating to photovoltaics.

**EMISSION INTENSITY** • Emissions per unit of value added.

**ENERGY PAYBACK TIME/CO<sub>2</sub> PAYBACK TIME** • The amount of time it takes the solar power system to produce as much energy as was used to manufacture it. Accordingly, the CO<sub>2</sub> payback time refers to the time it takes to compensate for the greenhouse gases that were emitted during manufacturing.

**EQUITY** • Balance sheet item consisting of the capital stock, reserves and accumulated results that are available to the company to be used for investments (for example).

**EQUITY RATIO** • Measures equity as a proportion of the total capital stock. Used to assess the stability of a company.

**EUROPEAN PHOTOVOLTAIC INDUSTRY ASSOCIATION (EPIA)** • Largest worldwide association for companies in the photovoltaic industry.

- F** **FEED-IN TARIFF** • The local utility is obliged to buy electricity from renewable sources and pay for it at a current rate. In Germany, this is regulated by the German → *Renewable Energy Sources Act* (Erneuerbare-Energien-Gesetz, EEG).

- 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 as → *stakeholders* in the management of German companies. SOLARWORLD has complied with the code since 2002.

**GIGAWATT (GW)** • One gigawatt equals one billion (1,000,000,000) → *watts*.

**GLOBAL CHALLENGES INDEX (GCI)** • 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 launch in 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 and a transparent presentation of the development over time.

**GLOBAL SOLAR ENERGY INDEX (MAC)** • Shows the performance of 35 companies in the solar industry worldwide. The SOLARWORLD stock has been listed in the index since its launch in 2008.

**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 percent) and methane from agriculture and mass animal husbandry (about 20 percent).

**GRID PARITY** • Parity between the price of solar-produced power and domestic electricity prices. This is achieved when the purchase price of solar power is the same as normal domestic electricity from the wall socket.

**I** **IMPAIRMENT** • Adjustment item to cover the impairment of a fixed or current asset item carried under assets in the balance sheet, for example accounts receivable.

**INCOME STATEMENT** • Period-related comparison of the incomes and expenditures of a company.

**INTANGIBLE ASSETS** • Include concessions, commercial property rights, licenses, corporate goodwill and patents.

**INTEREST SPREAD** • Difference between two interest rates, particularly between the base rate and the market rate which a borrower pays.

**INTERNATIONAL ACCOUNTING STANDARDS (IAS)** • Collection of standards and interpretations in which the rules of external reporting for capital-market-oriented companies are listed.

**INTERNATIONAL ACCOUNTING STANDARDS BOARD (IASB)** • Internationally staffed independent body of accounting experts that develops the → *International Financial Reporting Standards (IFRS)* and revises them as and when required.

**INTERNATIONAL FINANCIAL REPORTING INTERPRETATIONS COMMITTEE (IFRIC)** • Discusses current accounting issues that are differently or incorrectly treated because of insufficient guidance concerning the → *IAS* and → *IFRS* standards. Furthermore, it deals with new sets of conditions that have not yet been covered by *IAS/IFRS*.

**INTERNATIONAL FINANCIAL REPORTING STANDARDS (IFRS)** • Collection of internationally applicable standards and their official interpretations that lists the rules guiding the external reporting of capital-market-oriented companies.

**INVERTER** • Converts the direct current generated by → *solar modules* into the alternating current required by the grid. It also 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 → *QM*.

**ISO 14001** • International environmental management standard that lays down requirements to be met by an environmental management system.

**J** **JOINT VENTURE** • Economic cooperation between companies aimed at taking better advantage of each party's know-how and resources.

**K** **KILOWATT (KW)** • One kilowatt equals 1,000 → *watts*.

**L** **LARGE-SCALE PLANT** • Large → *solar power system*, mostly ground-mounted installations. Primarily, these are plants with a rated output of more than 100 kW.

**LINEAR PERFORMANCE GUARANTEE** • Warranty under which the guaranteed performance declines by a certain percentage per year and is not reduced step by step.

**M** **MARGIN** • Difference or market margin between producer (production) price and sales (consumer) price of a tradable product. The margin allows the overhead costs included in production and distribution to be covered.

**MARKET CAPITALIZATION** • Measurement referring to the number of stocks times the stock price.

**MEGAWATT (MW)** • Equals one million (1,000,000) → *watts*.

**MODULE** • → *Solar module*

**MONOCRYSTALLINE** • Conditions prevailing during → *crystallization* result in the solidification of the solar-grade silicon in a single large and homogeneous cylindrical crystal. Cf. → *polycrystalline*

**MSCI GLOBAL CLIMATE 100SM INDEX** • Performance of 100 international companies whose activities have the potential to reduce the causes of climate change in the short and long term, thereby offering solutions to prevent global warming. The SOLARWORLD stock has been listed in the index since its launch in 2005.

**N** **NO<sub>x</sub>** • Nitrogen oxide.

**O** **OECD (ORGANISATION FOR ECONOMIC COOPERATION AND DEVELOPMENT)** • Established in 1961, currently an alliance of 34 governments having the objective of identifying „best practice“ concerning sustainable economic development, high employment, rising living standards and financial stability, and drawing up appropriate guidelines. A further aim is to contribute to the growth of world trade.

**OFF-GRID** • Solar power systems not directly connected to the power grid; the power generated is consumed directly or stored locally (so-called stand-alone system).

**ÖKODAX** • Represents the performance of the ten most liquid German companies in the renewable energy sector and, along with the → *DAX* and → *TecDAX*, belongs to the → *Prime Standard*. The SOLARWORLD stock has been listed in the index since its launch in 2007.

**ON-GRID** • Solar power 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 can also take electricity from the grid if necessary.

**P** **PHOTON PHOTOVOLTAIK AKTIEN INDEX (PPVX, PHOTON PHOTOVOLTAIC STOCK INDEX)** • Global index launched by trade journals Photon and Öko-Invest listing companies that generated more than 50 percent of their previous year's revenues with products or services directly or indirectly associated with the installation or use of photovoltaic systems. The SOLARWORLD stock has been listed in the index since its launch in 2001.

**PHOTOVOLTAICS** • Describes the direct conversion of solar radiation into electrical energy.

**PHOTOVOLTAIK GLOBAL 30 INDEX** • The index comprises the 30 largest and most liquid stocks in the global solar sector.

**POLYCRYSTALLINE** • The conditions prevailing during → *crystallization* cause the → *solar-grade silicon* to solidify into a silicon block consisting of several small crystals which overall does not show a completely homogeneous arrangement of atoms. Cf. → *monocrystalline*

**PRICE-EARNINGS RATIO (P/E)** • Indicates the multiple of the earnings per stock at which the stock is currently valued on the stock exchange.

**PRIMARY SOURCES OF ENERGY** • Naturally occurring energy sources such as the sun, wind, water, coal, crude oil, natural gas, and nuclear fuels, which have to be converted (e. g. in power plants) to generate usable energy for end consumers.

**PRIME STANDARD** • Legally regulated listing segment of the Frankfurt Stock Exchange for companies meeting particularly stringent international transparency standards. Precondition for admission to DAX, MDAX, TecDAX or SDAX.

**PROVISIONS** • Balance sheet items in which amounts are accrued for uncertain future 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 on time and in full, and result from the analysis of quantitative and qualitative factors.

**REDUCED WORKING HOURS** • „Kurzarbeit“ in German. Employment policy instrument in which a company temporarily reduces regular working hours during slack periods. Reduced working hours are used to avoid redundancies and relieve the burden on employers. Subject to certain conditions, employees in Germany are able to claim a benefit in lieu of income under the terms of their unemployment insurance.

**RENEWABLE ENERGY INDUSTRIAL INDEX (RENIXXWORLD)** • Stock index of the 30 most important global companies active in wind energy, solar energy, hydropower, bio-energy, geothermal energy and fuel cells. The SOLARWORLD stock has been listed in the index since its launch in 2006.

**RENEWABLE ENERGY SOURCES ACT (EEG)** • Law prioritizing renewable energies in Germany. The EEG regulates the preferred purchase, transmission and compensation of electricity from renewable sources. Feed-in tariffs are fixed for twenty years, which provides planning safety and secure returns.

**RISK MANAGEMENT** • Procedure for the identification, measurement and avoidance/reduction of risks or the implementation of corresponding measures.

**S** **SELF-CONSUMPTION** • Self-generated power can be consumed directly, the rest can be fed into the public grid. In both cases, the feed-in tariff for solar power is guaranteed by the German state for 20 years through the → *Renewable Energy Sources Act*. The more power is used straight from the roof, the higher the return on investment from a solar array will be. The self-consumed power can be boosted to more than 60 percent with intelligent products for consumption control. People who produce their own power are more independent of increasing electricity prices. At the same time, the strain on the German grid is reduced since solar power generation and consumption occur together in the same building.

**SILICON** • → *Solar-grade silicon*.

**SO** • Sulfur oxide.

**SOLAR CELL** • Solar cells interconnected in a → *solar module* allow sunlight to be turned into electricity via the photovoltaic effect. The cell consists of two layers that are deliberately contaminated (doped). At the interface

of the two layers, an electric field is formed. If a light beam hits an electron in the upper layer, it can move freely and migrates to the outside. This creates a voltage that can be tapped via external contacts.

**SOLAR ENERGY INDUSTRY ASSOCIATION (SEIA)** • National industry association of the U.S. solar power industry.

**SOLAR MODULE** • Consists of interconnected → *solar cells*, which are sealed with silicone behind glass in an aluminum frame to make the module weather-resistant.

**SOLAR POWER SYSTEM/SOLAR POWER PLANT** • Complete system of → *solar modules* generating direct current through the photovoltaic effect; an → *inverter* converts the power into alternating current before it is fed into the grid.

**SOLAR2WORLD** • Under the SOLAR2WORLD, SOLARWORLD supports aid projects in developing countries with off-grid solar power solutions that promote sustainable economic development.

**SILICON (SOLAR-GRADE)** • Silicon crystals with a high degree of purity sufficient for solar applications. The chemical element silicon is a semiconductor that forms crystals with a stable diamond structure. After oxygen, silicon is the second most common element in the Earth's crust. For use in the solar industry, the raw silicon has to be purified into solar-grade silicon and is cast into blocks for cutting into → *wafers*.

**SOLEX** • → *World Solar Energy Index*.

**SPOT PRICE** • Price of a traded good purchased immediately; the cash price in contrast to the futures price.

**SQUEEZE-OUT** • Exclusion of minority shareholders from a stock corporation by the majority shareholder in return for payment of a cash settlement.

**STAKEHOLDER** • Groups or individuals who may influence the goals achieved by a company or who are affected by these goals. The key stakeholder groups include employees, shareholders, investors, suppliers, customers, consumers, authorities and non-governmental organizations.

**STANDARD TEST CONDITIONS** • Conditions under which the current and voltage indicators of a → *solar cell* and/or a → *solar module* are measured (1,000W/m<sup>2</sup>, 25°C cell temperature, solar spectrum AM 1.5).

**SUSTAINABILITY** • 1. Characteristic of a system that continues to exist in the long term; 2. Scientific concept concerning the objective limits to environmental ex-

plotation; 3. A concept in ethical standards at the core of which is the issue of justice and balance.

**SUSTAINABILITY MANAGEMENT** • Control of ecological, social and economic effects in order to achieve sustainable corporate and business development and ensure a positive contribution is made by the company to the sustainable development of society at large. To demonstrate this, many large companies in all industries now publish an annual sustainability report. SOLARWORLD's environmental and social reporting has followed the guidelines of the → *Global Reporting Initiative (GRI)* since 2007.

**T** **TECDAX** • Index of medium-sized German companies in the technology industry. In addition to the → *DAX*, the MDAX and the SDAX, the TecDAX belongs to the → *Prime Standard* of Deutsche Börse Group. SOLARWORLD AG was listed in this index from 2004 until March 2013.

**U** **UNAIDED BRAND AWARENESS** • 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 CHAIN** • Term used to designate the value added of a product at every stage of its production processes. The stages of SOLARWORLD's value chain range from → *solar-grade silicon* to → *solar modules*.

**W** **WAFER** • Thin discs made of → *solar-grade silicon*, used to produce → *solar cells*. They can be either → *monocrystalline* or → *polycrystalline*.

**WATT** • International measuring unit for power output, named after James Watt, standard sign „W“.

**WATT-PEAK** • Unit of measurement commonly used in photovoltaics to specify the electrical power output of → *solar cells* or → *solar modules* under → *standard test conditions*.

**WILDERHILL NEW ENERGY GLOBAL INNOVATION INDEX (NEX)** • Reflects the stock prices of companies whose global business focuses on the generation and use of → *renewable energies* and energy efficiency. The SOLARWORLD stock has been listed in the index since its launch in 2006.

**WORKING CAPITAL** • Current assets minus current liabilities, i. e. the portion of current assets financed with long-term sources. It provides information about the company's financial stability and flexibility.

**WORLD SOLAR ENERGY INDEX (SOLEX)** • The index contains the ten largest companies worldwide in the solar industry. The SOLARWORLD stock has been listed in the index since its launch in 2006.

**WP** • → *Watt-peak*

# PRODUCT GLOSSARY

## SOLAR MODULES

**SUNMODULE PLUS** • A solar module consists of multiple interconnected solar cells embedded between solar glass and a weather-resistant, multi-layer back sheet in an aluminum frame. SOLARWORLD's modules are tested during the fully automated production process and only leave the factory if they meet or exceed the stated nominal power (see → *Plus sorting* in the glossary). Independent quality assurance is guaranteed by the TÜV „Power controlled“ inspection mark. Our monocrystalline and polycrystalline solar power modules can be used for all kinds of different applications. They are suitable for installation on domestic roofs or carports and on the ground. SOLARWORLD offers a 25-year linear performance guarantee for Sunmodule Plus solar modules as well as a 10-year extended product workmanship warranty.

**SUNMODULE PROTECT** • With this new module concept, both the front and rear are equipped with solar glass (glass-glass module). Glass-glass modules are more mechanically robust and significantly better sheltered from environmental influences. Sunmodule Protect includes a 30 year linear performance guarantee. Thanks to the reduced degradation of only 0.35 percent, the energy yield over the product lifetime is higher than with glass-film modules. Despite the additional glass plate, Sunmodule Protect modules are just as light as glass-film modules. They therefore offer increased ease of handling and installation, as well as improved protection of the rear from damage during installation.

**SUNMODULE PLUS BLACK** • Solar modules with a uniform black surface and black frame, which blend especially well with dark roofs.

**SUNMODULE OFF-GRID** • Solar modules that are used in systems in which the electricity generated is consumed directly or stored locally independently of the grid (known as a stand-alone system). Particularly suited to regions that lack access to the public grid, off-grid systems help to cover the operator's own electricity needs.

## KITS

**SOLAR POWER KITS** • SOLARWORLD complete systems contain all of the components that are needed for a solar power system – including the selected module types, the right inverter, the required SUNFIX PLUS, SUNFIX AERO or SUNTUB system and frame technology, and matching accessories. The customer can either choose an individually planned and assembled kit or select the standard kit „SOLARWORLD Kit easy,“ which is available in three sizes as a preassembled package. All kit customers receive individualized system documentation, the SUNPASS. SOLARWORLD also offers free special insurance for two years and a connection to the SUNTROL online portal with the purchase of its solar power kits.

**SUNDECK** • The SUNDECK is a roof-integrated system. Instead of using a conventional roof covering, the solar modules are installed at the level of the roofing tiles. The SUNDECK blends harmoniously into the overall appearance of the roof. Another option is the SUNDECK 8500, which is particularly suited to higher snow loads.

**ENERGY ROOF PLUS** • Fully integrated roof-system.

**SUNCARPORT** • A SOLARWORLD solar roof combined with protection for your car. Just like a roof-mounted system, solar power from the carport can be fed into the public grid and you will receive the current feed-in tariffs in your area. The SUNCARPORT can also function as a solar power „filling station“ for electric or hybrid vehicles.

**SUNSHED** • Storage with a solar roof for gardening equipment, firewood, and bicycles. The SUNSHED is a separate and flexible addition to the solar power system on your roof. It can be installed directly against the walls of your home or on the ground.

## SYSTEM AND FRAME TECHNOLOGIES

**SUNFIX PLUS** • Assembly system for pitched and flat roofs as well as ground-mounted installations. The Sunfix Plus contains all the components that are needed to install a solar power system, from screws and aluminum profiles to the roof attachments.

**SUNFIXAERO** • This system and frame technology was developed according to aerodynamic aspects that generate a suction effect that holds the system securely in place. Hardly any ballasting is required, which means the system adds only a small increased load to the roof. What's more, it is a non-penetrating solution. The SUNFIX AERO duo modules are arranged at a tilt angle of ten degrees in opposing pairs on the roof. This arrangement enables 60 percent more power to be generated from the same area.

**SUNTUB** • Assembly system for flat roofs with an inclination of up to six degrees. The SUNTUB is a flat roof tub made from environmentally friendly, easily recyclable plastic. SUNTUBS are combined and protected from possible wind loads using paving slabs or similar ballast. Like the SUNFIX AERO, installation of SUNTUBS does not require any penetration of the existing roof membrane or floor covering.

**SUNTRAC** • Assembly system for ground-mounted installations with solar modules that track the sun. The system enables rotation along two axes, making it possible to increase the power yield. SUNTRAC can be used with either 32 or 48 modules.

## ACCESSORIES

**SUNPAC** • A SUNPAC battery system allows solar power to be stored and used when needed. Thanks to the three-phase system, the SUNPAC 2.0 can supply all three house phases with solar power. With a storage capacity of 11.6 kWh, the lead-acid battery can store enough solar power to supply a four-person family from sunset to sunrise with power. The amount of homemade power can be increased to up to 80 percent and the electricity bill significantly lowered.

**SUNTRON** • The SUNTRON product family offers a wide range of applications for professional system monitoring and controlling for SOLARWORLD solar power systems, including a display, data logger, Internet portal, and various apps.

**SUNTOOL** • This professional design software for architects, installers, planners, and wholesalers allows solar power systems to be planned on an individual basis according to the roof type and inclination. The software also generates detailed yield forecasts, result reports and a data sheet for kit planning.

**SUNCHARGER** • The SUNCHARGER combines a power supply unit, battery, and solar cell – all in one single device. It generates and stores solar power and makes it available to mobile applications via a USB port.

## PRODUCTION

**SOLSIX** • SOLSIX wafers are manufactured at the Freiberg site by SOLARWORLD subsidiary DEUTSCHE SOLAR GMBH.

# LIST OF ACRONYMS AND ABBREVIATIONS

- A** AG ..... *German Stock Corporation*  
AktG ..... *German Stock Corporation Act*  
AS&S ..... *ARD-advertising Sales & Services GmbH*
- B** BaFin ..... *Federal Financial Supervisory Authority*  
BGB ..... *German Civil Code*  
BIP ..... *Gross Domestic Product*
- C** CASM ..... *Coalition for American Solar Manufacturing*  
CDP ..... *Carbon Disclosure Project*  
CEO ..... *Chief Executive Officer*  
CFO ..... *Chief Financial Officer*  
CHRBO ..... *Chief Human Resources and Brand Officer*  
CO<sub>2eq</sub> ..... *CO<sub>2</sub>-equivalent*  
COO ..... *Chief Operating Officer*  
CSO ..... *Chief Sales Officer*
- D** DCGK ..... *German Corporate Governance Code*  
DENA ..... *German Energy Agency GmbH*  
D&O ..... *Directors and Officers*  
DSIRE ..... *Database of State Incentives  
for Renewable Energy*  
DVFA ..... *Deutsche Vereinigung für Finanzanalyse  
und Asset Management → EFFAS*
- E** EBIT ..... *Earnings Before Interest and Taxes*  
EBITDA ..... *Earnings Before Interest, Taxes,  
Depreciation and Amortization*  
EDV ..... *Electronic Data Processing*  
EEG ..... *German Renewable Energy Sources Act*  
EFFAS ..... *The European Federation of Financial  
Analysts Societies → DVFA*  
EIA ..... *Energy Information Administration*  
EPIA ..... *European Photovoltaic Industry Association*  
ESG ..... *Environmental, Social, Governance*
- F** F&E ..... *Research and Development*
- G** GbR ..... *Civil law company*  
GC ..... *Global Compact*  
GmbH ..... *Company with limited liability*  
GRI ..... *Global Reporting Initiative*  
GuV ..... *Statement of income*  
GW ..... *Gigawatt*
- H** HGB ..... *German Commercial Code*
- I** IAA ..... *International Automobile Fair*  
IAS ..... *International Accounting Standards*
- IASB ..... *International Accounting Standard Board*  
IEA-PVPS ..... *International Energy Agency Photovoltaic  
Power System Programme*  
IEC ..... *International Electrotechnical Commission*  
IFRIC ..... *International Financial Reporting  
Interpretations Committee*  
IFRS ..... *International Financial Reporting Standards*  
IFW ..... *Institute for the World Economy*  
IKS ..... *Internal Inspection System*  
INC. .... *Incorporated*  
IP ..... *Intellectual Property*  
ISIN ..... *International securities identification number*  
ISO ..... *International Organization for Standardization*  
IT ..... *Information Technology*
- K** KR ..... *Internal Audit Department*  
KW ..... *Kilowatt*  
KWH ..... *Kilowatt per hour*  
KWP ..... *Kilowatt-peak*
- L** LLC ..... *Limited Liability Company*  
LP ..... *Limited Partnership*  
Ltd. .... *Limited Company*
- M** MW ..... *Megawatt*
- O** OHSAS ..... *Occupational Health and Safety  
Assessment Series*
- P** PTE Ltd. .... *Private Limited*  
PV ..... *Photovoltaic*
- R** ROCE ..... *Return on capital employed*
- T** TDAP ..... *Test Data Acceptance Program*  
TPM ..... *Total Productive Management*  
TUBAF ..... *Freiberg University of Mining and Technology*
- U** USITC ..... *U.S. International Trade Commission*
- V** VORSTAG ..... *Act on the Appropriateness of  
Management Board Remuneration*
- W** WKN ..... *German Securities Code Number*  
WpHG ..... *German Securities Trading Act*

# CHRONICLE

HISTORY OF  
SOLARWORLD AG

## 1999 – 2012

### – 1999 –

SOLARWORLD AG floats on the stock market and is traded on the open market at the Düsseldorf Stock Exchange.

### – 2000 –

SOLARWORLD AG acquires the world's leading manufacturer of solar silicon wafers, a subsidiary of the Bayer group. Over the next few years in Freiberg, Germany, SOLARWORLD AG successively creates an integrated manufacturing site from wafer to cell to module that meets the highest technological standards, and conducts its own research and development.

### – 2003 –

SOLARWORLD AG is included in the Prime Standard of Deutsche Börse Group, Frankfurt, Germany. A year later, it enters TecDAX.

### – 2005 –

SOLARWORLD AG presents the first Einstein Award in recognition of outstanding contributions to promoting the use of solar energy.

### – 2006 –

SOLARWORLD AG acquires Shell's crystalline solar activities, creating the basis for future production in the United States. Over the next few years, SOLARWORLD AG becomes the largest solar group with production activities in the United States.

### – 2007 –

SOLARWORLD AG pools its not-for-profit activities under the SOLAR2WORLD program. The group supports regional development in Africa, Asia and Latin America with projects implementing solar power solutions in rural areas.

### – 2008 –

SOLARWORLD AG opens a new production facility in the United States at its site in Hillsboro, Oregon. That same year, the company receives the German Sustainability Award.

### – 2009 –

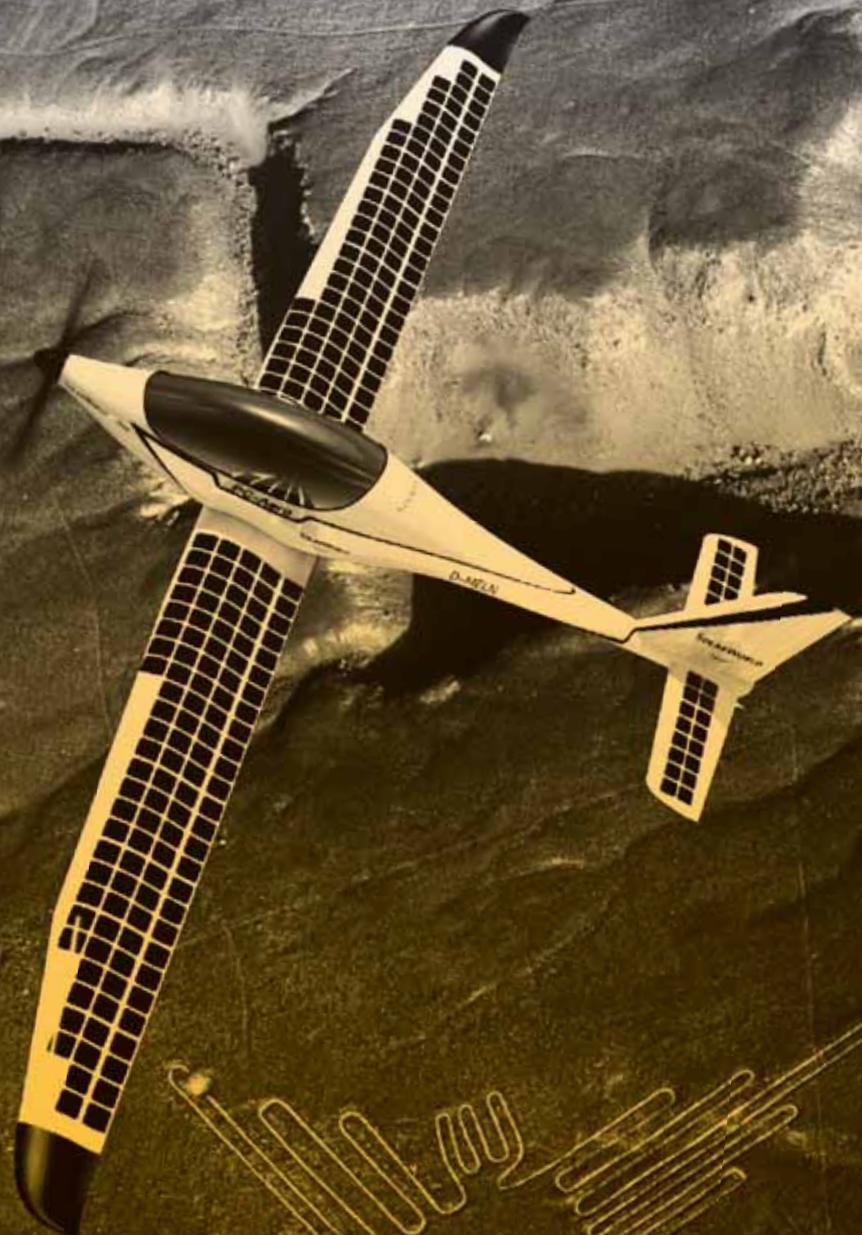
For the first time, SOLARWORLD AG generates annual sales revenues in excess of € 1 billion and becomes the best-known solar brand in Germany.

### – 2011 –

SOLARWORLD AG acquires SOLARPARC AG, paving the way for the expansion of its international business as a developer and operator of large-scale solar projects.

### – 2012 –

SOLARWORLD AG expands its global distribution network with offices in Japan and the UK, continuing the internationalization of its sales markets.



THE ANNUAL GROUP REPORT IS ALSO AVAILABLE IN GERMAN. ONLINE VERSIONS IN GERMAN AND ENGLISH CAN BE FOUND ON OUR HOMEPAGE AT [WWW.SOLARWORLD.DE/FINANCIAL-REPORTS](http://WWW.SOLARWORLD.DE/FINANCIAL-REPORTS).

CONTACT OUR TEAM:

*SolarWorld AG*  
Investor Relations  
Martin-Luther-King-Str. 24  
53175 Bonn, Germany

[www.solarworld.com](http://www.solarworld.com)  
[placement@solarworld.de](mailto:placement@solarworld.de)  
Phone: +49 228/559 20-470  
Fax: +49 228/559 20-9470

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– SOLARWORLD 2012 –

## WE SHARE A *VISION*



**Strengthened by our pioneering spirit**  
and commitment to innovation, we  
– as an international group –  
drive the continuous growth of solar power production.

**Harnessing the unlimited power of the sun**  
is the key to protecting the world's resources and climate.

**Decentralized solar technology**  
is safe for humans and the environment and  
offers people all over the world the opportunity  
to embrace sustainable development.

**Sustainability lies at the core of all our business activities.**

**We – the global SolarWorld Team –**  
are committed to supporting our colleagues,  
improving the satisfaction of our customers,  
and taking responsibility for our entrepreneurial success  
as well as our society and the environment.

