IVU TRAFFIC TECHNOLOGIES

ANNUAL REPORT 2017

KEY FIGURES OVERVIEW

CONSOLIDATED FINANCIAL STATEMENTS IN ACCORDANCE WITH IFRS

(€ million)	2013	2014	2015	2016	2017	Change 2017 to 2016
Revenues	46.3	47.2	58.1	59.8	71.1	+11.3
Gross profit	34.8	37.1	40.1	42.8	47.7	+4.9
Personnel expenses	22.8	23.9	25.2	28.6	31.2	+2.6
EBIT	3.9	4.3	4.9	1.4	6.1	+4.7
Consolidated net profit	3.8	4.4	3.6	-0.2	5.0	+5.2
Cash flow from operating activities	5.8	5.3	-5.0	2.6	3.8	+1.2
Free Cashflow	5.4	4.0	-6.3	1.1	2.9	+1.8

KEY FIGURES

	2013	2014	2015	2016	2017
Equity ratio (Equity/total assets)	55%	56%	63%	66%	64%
EBIT/Gross profit	11.1%	11.7%	12.1%	3.3%	12.9%
Full-time equivalents as annual average	322	332	353	393	419
Gross profit per FTE (in € thousand)	108	112	114	109	114

COMPANY
LETTER TO THE SHAREHOLDERS

Dear shareholders,
Dear friends of IVU,

2017 was the most successful fiscal year in IVU's history. All key figures reached new record levels: revenue rose to €71.1 million, up 19% on the previous year's outstanding total. Gross profit also increased sharply by 11% to €47.7 million, and EBIT rose to €6.1 million. We will therefore propose a dividend of €0.10 to the Annual General Meeting.

Demand for our solutions on the market remains high. This is particularly evidenced by the numerous framework agreements we concluded last year with the likes of DB Regio, the largest German local public transport provider, and the Transdev subsidiary Connexxion, which runs a fleet of around 2,000 buses throughout the Netherlands. Our service always goes beyond delivery of a reliable IT system: IVU is regarded as a partner that assists companies with their digital transformation. With our expertise and extensive experience, we are ideally positioned for this.

Traditionally, we are particularly strong in our domestic markets. To enable us to support our customers even more effectively and work with them to develop the right solutions for the transport of tomorrow, we have made further additions to our workforce. Last year, IVU opened its first offices in Austria and Switzerland, where we already collaborate with numerous transport operators.

As members of the Executive Board, we also want to be close to our customers. To achieve this in the context of further growth, we have extra hands on board. Our new colleague Leon Struijk has been responsible for projects and sales since February 2018. With his experience as a successful founder and longstanding manager of transport operators, he brings a great deal to the table.

Matthias Rust Martin Müller-Elschner Leon Struijk

We are confident that IVU will continue to earn your loyalty in 2018.

Yours sincerely,

The Executive Board
Berlin, 21 March 2018

COMPANY
REPORT OF THE SUPERVISORY BOARD

Dear Shareholders,

My colleagues and I are delighted with the extremely positive business performance of IVU last year. As your Supervisory Board, our top priority is to safeguard the economic development of the company and to lay the foundations for further successful growth in the future. This is why we regularly discuss strategic matters intensively in our meetings. Last year, these matters included the acquisition of STI AG in Switzerland and the establishment of IVU Austria GmbH. Furthermore, we addressed the range of expertise and the augmentation of the Executive Board, culminating in the appointment of Leon Struijk as a new member at the beginning of this year.

To perform all its tasks correctly, the Supervisory Board continuously monitored and advised the Executive Board in 2017 in line with legislation, the company statutes and the German Corporate Governance Code. It received comprehensive information on the economic and financial performance, key business events, strategy and planning of IVU. The Executive Board notified the Supervisory Board promptly and on a regular basis. All facts required for pending decisions were made available to the Supervisory Board in good time.

The Chairman of the Supervisory Board maintained regular contact with the Executive Board above and beyond the meetings. He passed on major findings and information from these discussions to the Supervisory Board members in order to keep them equally informed and give them the opportunity to offer their advice.

Activities

The Supervisory Board meets regularly in order to discuss the matters described above and take decisions. In 2017, four scheduled meetings were held at which the Executive Board informed the Supervisory Board in detail of the economic situation and development of IVU. The dates were 21 March, 30 May, 30 August and 17 November 2017. All Supervisory Board members attended every meeting. In addition to these meetings, the Supervisory Board adopted three circular resolutions. Furthermore, in the context of the meetings and resolutions, preparatory and follow-up discussions took place between the members of the Supervisory Board in order to share information and prepare for decisions.

As it only has three members, the Supervisory Board did not form any committees. We reached joint decisions on all transactions requiring approval.

Focal points of discussions

Discussions focused on the economic situation of the company, its prospects and its future orientation in the international competitive environment.

We dealt in detail here with the Executive Board's strategy of concentrating on the domestic markets of Germany, Austria and Switzerland. In particular, we held intense discussions in the run-up to the acquisition of the Swiss consultancy firm STI AG and the associated establishment of IVU Traffic Technologies Schweiz AG, and assessed the possible impacts on the company's economic situation and future performance. We share the Executive Board's view that this step is suitable for strengthening local sales, expanding customer service and unlocking new potential in the significant Swiss market.

In addition, we discussed the establishment of Vienna-based IVU Austria GmbH in detail. Given the large number of existing customer relationships with major companies such as Wiener Linien, ÖBB and Steirischer Verkehrsverbund, we believe that it is appropriate to expand sales and customer service locally in the context of a wholly owned subsidiary.

Other key topics at the meetings were:

- Scrutiny and approval of planning for the financial year 2017
- Approving the consolidated financial statements
- Adopting the separate financial statements
- Liquidity planning
- Discussing the quarterly financial statements
- Personnel
- Line-up and allocation of duties of the Executive Board
- Risk management
- Major projects and their economic impacts on the company
- Preparations for the Annual General Meeting
- Internationalisation strategy

André Neiß Uli Mayer-Johanssen Prof Herbert Sonntag

Corporate Governance

Responsible management and sustainable value creation are hugely important to IVU Traffic Technologies AG. Therefore, in 2017, the Supervisory Board and Executive Board again discussed the recommendations and suggestions of the German Corporate Governance Code and issued the declaration of conformity pursuant to Section 161 of the German Stock Corporation Act (AktG) and published it on IVU's website (www.ivu.de) together with the corporate governance declaration. With just a few exceptions, IVU meets the code's recommendations. Detailed reasons for the deviations are provided. They relate to the information and reporting obligations of the Executive Board, the deductible in the case of D&O insurance for the Supervisory Board, the compliance management system and whistleblower system, the reporting of Executive Board remuneration, the age limit for members of the Executive Board, diversity, the formation of committees and the composition and remuneration of the Supervisory Board.

Annual and consolidated financial statements

At our balance sheet meeting on 21 March 2018, we considered in detail the financial statements of IVU Traffic Technologies AG, the consolidated financial statements of 31 December 2017 as well as the respective management reports. The auditors, Ernst & Young GmbH Wirtschaftsprüfungsgesellschaft, were available during the meeting to answer questions. After detailed examination and discussion, we approved both the consolidated financial statements and the separate financial statement of the AG.

Berlin, 21 March 2018

For the Supervisory Board
Prof Herbert Sonntag
Chairman of the Supervisory Board

COMPANY
INTERVIEW WITH THE EXECUTIVE BOARD

Revenue, gross profit and EBIT increased significantly in fiscal year 2017, exceeding your expectations. What is your assessment of the past year?

MARTIN MÜLLER-ELSCHNER: We are more than satisfied. Last year was the most successful in IVU's history. This shows that we are back on track. We have worked on the areas requiring attention and put our operating business on a stable footing.

After the negative non-recurring effects in 2016, you announced a concentration on core markets. What does that mean?

MATTHIAS RUST: We have a strong market position in Europe. We aim to build on this and create new opportunities. Specifically, this means that we are expanding our profitable business with existing customers – particularly with our new offices in Vienna and Zurich – while stepping up our sales activities in high-margin business with railway operators. We are approaching global markets opportunistically, with a particular eye on major cities. To hedge our risks, we are increasingly working with local partners and reliable institutions such as the World Bank.

Even so, you are expecting slightly lower EBIT of EUR 4 million to 5 million for 2018. Why is that?

MARTIN MÜLLER-ELSCHNER: The market is currently undergoing radical change. Many transport operators are restructuring their IT landscape in order to prepare for digitalisation – we aim to benefit from this. We are targeting further growth, and are therefore investing in further expanding our workforce. It would be unwise to make false economies now.

Will you be paying a dividend again in future after the strong performance this year?

MARTIN MÜLLER-ELSCHNER: We are keen for our shareholders to share in IVU's commercial success. Along with a long-term increase in enterprise value, this should also include payment of appropriate dividends. At the same time, we must use the profits of the past to invest for the future. We will carefully weigh up all these aspects every year.

The news that DB Regio has opted for IVU met a particularly positive response on the stock markets.

MARTIN MÜLLER-ELSCHNER: We are very proud that DB Regio chose our bid. As a solution partner, we are helping DB Regio with the company's digital transformation, thus creating another important reference for our top product, IVU.rail. In the long term, framework agreements of this kind also boost the proportion of recurring income. This helps to further reduce our dependency on project business.

E-ticketing was a big topic last year. You were also awarded lots of framework agreements here. Is this becoming a new focal point?

MATTHIAS RUST: The industry has been working on this topic for some time, so it is nothing new for us in that respect. As expected, we managed to win lots of calls to tender last year. We are particularly proud of our projects with Transdev and Connexxion in the Netherlands, where we are helping with future-oriented renewal of the company as an IT partner.

We have not heard much from the Logistics segment lately. What is the situation like here?

MATTHIAS RUST: Logistics has stable business with longstanding major customers such as Deutsche Post and the federal elections administrator with whom we collaborate closely and will continue to do so in future. This is giving rise to lots of suggestions for new innovations and products, including in the Public Transport segment.

You had a relatively large number of announcements on innovations last year. Has your strategy changed in that respect?

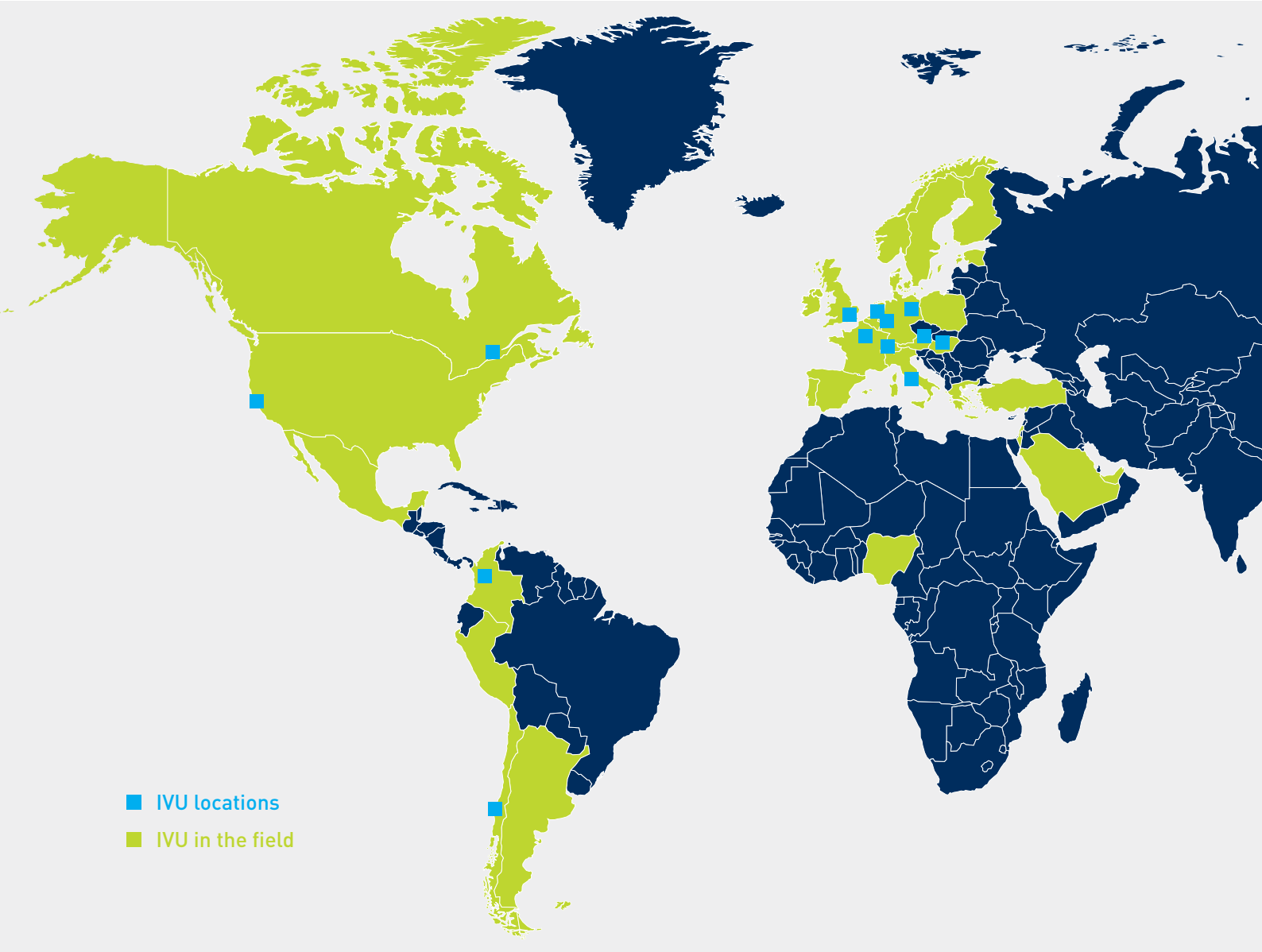
MATTHIAS RUST: Innovation is at the heart of our identity. Much of this arises directly in projects and is then incorporated in our standard product. Let me give you a couple of examples: with the IVU.pad, we are putting digitalisation straight into the cockpits of buses and trains. Together with BestMile, we have launched a research project on autonomous driving, and our IVU.suite enables transport operators to use the growing fleet of electric buses in Germany efficiently here and now.

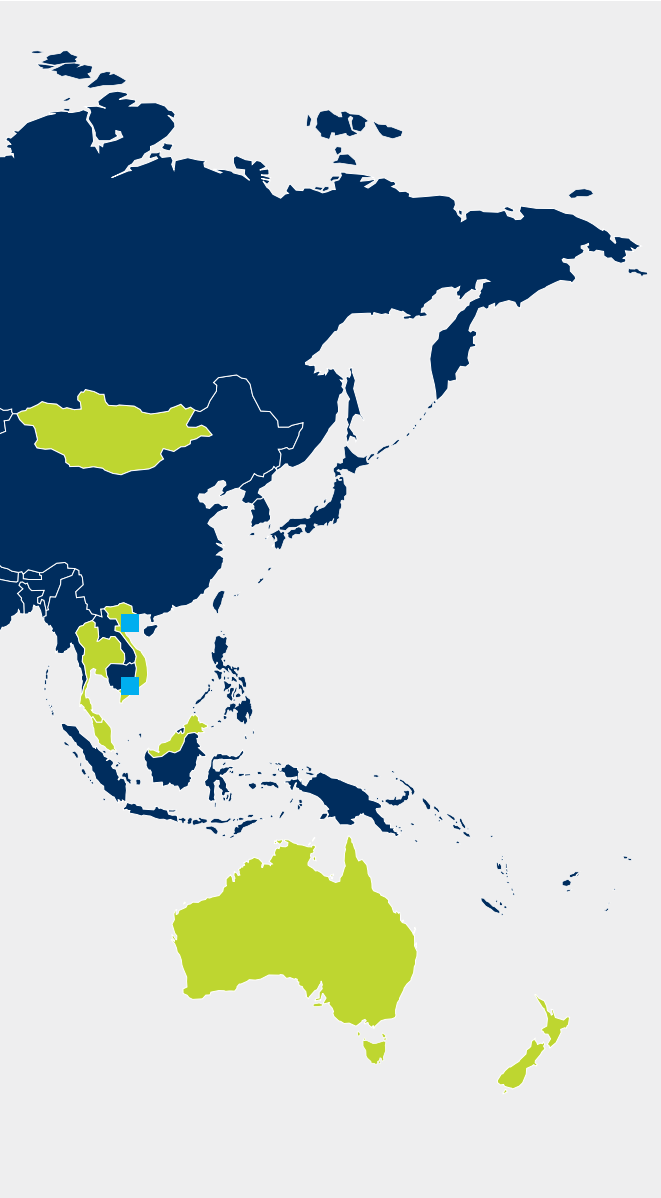
Mr Struijk, you joined the IVU Executive Board as CCO in February. What do you plan to do in your new role?

LEON STRUIJK: From my previous roles at various transport operators, I have first-hand experience of our customers' expectations. As CCO, I can apply my knowledge of the operating, commercial and strategic business of transport operators and assist our customers in their decision-making. I aim to further strengthen customer relationships, generate more business with existing customers and make IVU their first port of call when it comes to IT systems for public transport.

COMPANY
IVU WORLDWIDE

BERLIN (HEADQUARTERS), **AACHEN** (DE), **VEENENDAAL** (NL), **BIRMINGHAM** (GB), **ZURICH** (CH), **BASEL** (CH), **VIENNA** (AT), **PARIS** (FR), **ROME** (IT), **BUDAPEST** (HU), **MONTRÉAL** (CA), **SAN FRANCISCO** (US), **BOGOTÁ** (CO), **SANTIAGO** (CL), **HANOI** (VN), **HO CHI MINH CITY** (VN)





SELECTED REFERENCES 2017

GERMANY

DB Regio, the largest German local public transport provider, has opted for IVU.rail. In future, all regions of the company will be planning their resources with the standard system of IVU.

NETHERLANDS

Connexxion, the leading transport operator in urban and regional transport in the Netherlands, ordered a complete system for fleet management, cashless payment for paper tickets and e-ticketing.

LUXEMBOURG

The new Luxembourg tram line was opened in December. Its operator, Luxtram, uses the solutions of the IVU.suite for vehicle and staff planning and dispatch.

HUNGARY

The Hungarian national railway MÁV-START manages more than 9,000 employees and 1,000 trains with IVU.rail. This means that most public rail transport in Hungary runs with the IVU system.

PERU

In Lima, all operations of the bus company Buena Estrella are fully digital: from planning, fleet management, e-ticketing and passenger information to settlement.

COMPANY HIGHLIGHTS 2017 PUBLIC TRANSPORT

BERLIN. DB REGIO OPTS FOR IVU.RAIL

Planning and dispatching vehicles and personnel in one system – this is what the largest German regional public transport supplier will be able to do in the future, thanks to IVU.rail. A framework contract of DB Regio AG and IVU envisages the uniform replacement of DB Regio's existing planning and dispatching systems with IVU.rail. In the future, all of the company's transport networks will conduct their rail-related resource planning and dispatching through the integrated IVU system. DB Regio will particularly profit from the integrated production processes and the standardised data management by using the IVU software. Automatic consistency checks make it easier for planners to create suitable vehicle round trips and composite configurations. The powerful optimisation tools of IVU.rail supports the best possible results.

WITH OVER 5 MILLION PASSENGERS AND NEARLY 28,000 TRAINS A DAY, DB REGIO IS THE UNDISPUTED MARKET LEADER IN LOCAL PUBLIC RAIL TRANSPORT IN GERMANY. THE COMPANY WILL BE CONVERTING ALL ITS OPERATING REGIONS TO IVU.RAIL IN THE NEXT FEW YEARS.

DB REGIO IS **DIGITALISING PLANNING AND DISPATCH** OF VEHICLES AND STAFF WITH IVU.RAIL. GERMANY'S LARGEST LOCAL PUBLIC TRANSPORT PROVIDER IS THEREFORE **SETTING THE COURSE FOR THE FUTURE**.

COMPANY HIGHLIGHTS 2017 PUBLIC TRANSPORT

WARSAW. WKD USING IVU.REALTIME

Using twenty-one modern multiple units, WKD (Warszawska Kolej Dojazdowa) conveys around eight million passengers annually to and from the Polish capital across a distance of 33 kilometres with 28 stop points. This makes the connection between Warsaw and Grodzisk Maziwiecki one of the most frequented railway lines in the country. To further boost the attractiveness of its services WKD now informs its passengers of current departure times in real time using the IVU solutions IVU.fleet and IVU.realtime. The system transmits actual data to over 100 stop displays at stations, as well as to smartphones and the internet.

With this order, IVU has gained an important reference in another market in Europe. IVU's Polish partner, Comp S.A., was responsible for project management. The successful project process has reaffirmed the strategy of working closely with experienced local partners and making use of their expertise.

HILVERSUM. FRAMEWORK CONTRACT WITH CONNEXXION

With bus services, train connections and ferries in 17 transport regions, Connexxion is the leading transport operator in urban and regional transport in the Netherlands. To give passengers the option of cashless payment for their tickets when boarding, and to reduce cash transactions on the buses, all concessions of the Dutch Transdev subsidiary will receive the standard products of the IVU.suite.

IVU is supplying the traffic control system IVU.fleet, the fare-management solution IVU.fare and the proven on-board computers IVU.ticket.box for this. Along with the conventional paper printer, the devices are equipped with payment terminals for PIN entry. In addition, the system supports the Dutch e-ticketing standard SDOA for the national OV-chipkaart.

BERLIN. MULTI-TENANT SOLUTION FOR TRANSDEV

The German Transdev Group – with its 43 subsidiaries the largest private rail and bus operator in Germany – also signed a framework contract with IVU, providing all its subsidiaries with a multi-tenant system for fleet management and ticketing. This way, every new contract the subsidiaries of the Transdev Group win will receive a simple solution for handling all ticket sale activities: ranging from the fleet management system IVU.fleet to IVU.fare for settlement and fare management and to the IVU.ticket.box on-board computer for selling tickets in the vehicle. The framework agreement has an eight-year term with a minimum volume of 600 vehicles. IVU has already received the first orders. Transdev has been relying on the IVU.suite's planning modules since 1997 to make optimal use of its buses, trains and staff.

LUXEMBOURG. SALES-LENTZ OPTIMISES RESOURCE DEPLOYMENT

Using the powerful optimisation core of IVU.suite, Sales-Lentz, one of the Luxembourg's biggest transport operators, ensures the efficient and resource-saving deployment of vehicles and personnel. To more effectively coordinate driver duties in scheduled services with the separate and sometimes multi-day charter trips, Sales-Lentz implemented the IVU.suite planning and scheduling modules last year. This standard system developed by IVU features integrated duty and vehicle working scheduling, which allows vehicle working periods to be synchronised with the drivers' break and relief periods.

E-TICKETING IS BECOMING INCREASINGLY IMPORTANT: NUMEROUS TRANSPORT OPERATORS AND ASSOCIATIONS ORDERED **SOFTWARE AND HARDWARE** FOR ELECTRONIC TICKET SALES FROM IVU IN 2017.

COMPANY HIGHLIGHTS 2017 PUBLIC TRANSPORT

LIMA. IVU AWARDED E-TICKETING PROJECT IN PERU

With around 130 buses, bus operator Buena Estrella has been delivering reliable local transport in the Peruvian capital Lima, which is home to millions of people, for over 15 years. The fleet is set to grow to 400 vehicles by 2019. To offer its passengers modern and safe services, Buena Estrella ordered a multi-tenant, interoperable e-ticketing and fleet management system based on IVU.suite last year. For this purpose, all of Buena Estrella's vehicles have been equipped with the IVU.ticket.box on-board computer. As well as containing all the peripheral ticketing devices and the card reader for electronic tickets, it also transfers the vehicle's position data to the IVU.realtime.app, which is helping passengers in Lima with departure times and an active trip companion. Finally, IVU.control is used for statistics and settlement.

BUENA ESTRELLA IS IMPRESSING PASSENGERS IN LIMA WITH APP-BASED MODERN E-TICKETING AND PASSENGER INFORMATION IN REAL TIME. THE IVU.SUITE ASSISTS THE BUS COMPANY ACROSS THE ENTIRE WORKFLOW.

COMPANY HIGHLIGHTS 2017 LOGISTICS

BERLIN. IVU APP INFORMED IGA VISITORS

Last year's International Garden Show drew crowds to Berlin with flowers, indoor and outdoor exhibitions and events. IVU had developed an App on behalf of the state of Berlin that helped visitors to find their way around the site and discover the various attractions by way of an audioguide. The application also met the special requirements of people with visual and physical impairments. To make this possible, special Bluetooth beacons had been installed at around 150 locations. These let the app know exactly where the visitor was, so it could automatically play the audio text for the appropriate attraction. The route was calculated entirely on IVU's servers. In order to guarantee exact guidance, the system had access to high-precision survey data of the IGA site, which as well as GPS coordinates also included all the structural features of the paths and buildings.

MORE THAN TRANSPORT: IVU'S LOGISTICS PRODUCTS OPTIMISE THE OPERATIONAL PROCESSES IN **INFORMATION AND TRANSPORT LOGISTICS** – FROM ANALYSIS OF GEODATA TO THE RUNNING OF ELECTIONS.

GERMAN FEDERAL ELECTIONS. FOR THE FIFTH TIME, THE FEDERAL ELECTIONS ADMINISTRATOR CHOSE IVU. ELECT TO ENSURE EFFICIENT ORGANISATION OF THE ELECTIONS TO THE 19TH GERMAN PARLIAMENT. FOR INSTANCE, THE IVU SYSTEM GUARANTEED THAT THE PROVISIONAL ELECTION RESULTS WERE CALCULATED AND PUBLISHED ON ELECTION NIGHT.

COMPANY HIGHLIGHTS 2017 EVENTS

UITP GLOBAL SUMMIT. DIGITAL INNOVATIONS

The UITP Global Public Transport Summit 2017 was also characterised by digitalisation. Amongst others, IVU showcased the latest version of IVU.rail. New, powerful optimisation algorithms enable even more efficient resource deployment than in previous versions. All processes are handled within one integrated system, establishing a complete digital workflow from scheduling to dispatch to payroll. With IVU.rail, all employees are involved and informed for the duration of the planning process.

USER FORUM. PROMOTING DIGITALISATION

Digitalisation is moving the transport sector. Its effects were also the main topic of conversation at last year's User Forum of IVU. Representatives of transport operators from all over the world met in

IT FOR RAIL. IN JUNE, TOP MANAGERS OF EUROPEAN RAILWAYS ACCEPTED THE JOINT INVITATION FROM DB REGIO AND IVU TO COME TO BERLIN TO DISCUSS THE DIGITAL TRANSFORMATION OF RAILWAYS, CURRENT CHALLENGES AND FUTURE DEVELOPMENTS.

Berlin for the 29th time. Dr Frank Scholz, then CIO of DB Regio AG, took on the role of keynote speaker and welcomed the guests. In his presentation, he emphasised the importance of IT departments for the development of new business models. Using the example of DB Regio, he showed how integrated digital systems help to effectively streamline operational processes. His insights into his own experiences served as the prelude to two days of discussions and animated conversations.

COMPANY HIGHLIGHTS 2017 INNOVATION

E-READY. THE IVU.SUITE FOR ELECTRIC BUSES

The IVU.suite, IVU's standard system for public transport, helps planners and dispatch managers to deploy electric buses efficiently. It knows the properties of the vehicles, the charging options and the route situations, and assists with suitable suggestions. The powerful optimisation core of the IVU. suite plans run schedules and duties automatically, ensuring maximum use of e-buses and optimum deployment of employees.

Even before starting off, the IVU.suite helps with checking scenarios and selecting the right vehicle. IVU particularly focused on integrated management of e buses and buses with combustion engines: the system combines all vehicles in a single user interface and enables joint planning and dispatch.

AUTONOMOUS DRIVING. MOBILITY OF THE FUTURE

IVU and BestMile have partnered to provide mobility solutions fully integrating autonomous vehicles in traditional transportation systems. IVU and BestMile have launched the Autonomous Driving for Public Transport project aka "ADxPT". We are jointly developing a test and demonstration system in which public transportation companies can integrate and efficiently operate hybrid fleets of autonomous and driver-operated vehicles. A central focus is to interconnect our respective solutions in order to allow for the integration, real-time routing and dispatching of both vehicle types.

BestMile's cloud platform enables the operation and optimisation of autonomous mobility services. In "ADxPT", the company leverages its expertise with real-life deployments of autonomous vehicles. IVU provides its smart software solutions for fleet management, passenger information and ticketing, allowing transport operators and cities to offer innovative services adapted to their specific transportation requirements.

IVU.TICKET.APP. ELEGANT TICKETING

The new IVU.ticket.app expands IVU's product range for mobile ticketing. The streamlined smartphone app comes complete with a connection search tool and generates VDV-KA-compliant barcode tickets for bus and rail travel. Users can easily log in via their existing Facebook or Google accounts and store their payment method directly in the app for fast ticket purchasing. When used with the settlement software IVU.fare, extensive evaluation functions are available to transport operators.

This way, the app blends in seamlessly with the integrated ticketing system of IVU. The tried-and-tested on-board computer IVU.ticket.box is also part of this system. Since last year, it is equipped for cashless payment by credit card and debit card – and totally contactless payment without PIN entry is now also possible on request. This accelerates boarding on a bus significantly: just hold the chip card in front of the scanner, wait for the beep and it's done.

IVU HAS BEEN ADVANCING THE **DIGITAL REVOLUTION** OF PUBLIC TRANSPORT FOR OVER 40 YEARS. INNOVATIVE SOLUTIONS ARE OUR BUSINESS. BECAUSE THE **MOBILITY OF TOMORROW** STARTS TODAY.

COMPANY HIGHLIGHTS 2017 PERSONNEL

Complex systems require smart thinkers. IVU's employees develop ideas, write software, implement projects, advise customers and provide support. Their expertise is a key factor in our success.

That is why we always aim to attract the best people to the IVU team. With so much competition for highly qualified specialists, we invest lots of time and energy to find outstanding software engineers and project managers. Our recruitment activities in 2017 included publication of a brochure in which we show candidates IVU's strengths as an employer. By having a visible presence at job fairs and trade events and holding seminars at universities throughout Germany, we come into contact with potential employees at an early stage.

Our commitment is paying off. Despite the challenging situation on the labour market, IVU has continued to grow, and now has over 500 smart thinkers worldwide. This particularly benefits our customers, who can rely on the quality of our systems.

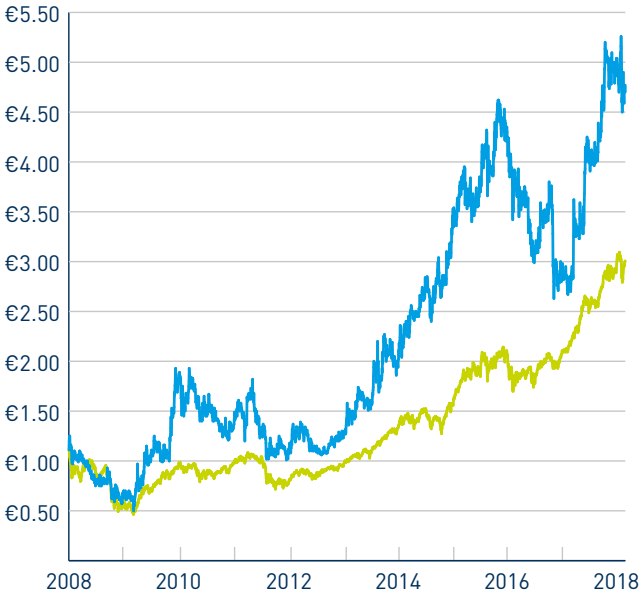
IVU DEVELOPERS STAY **UP-TO-DATE**: ONCE A YEAR, THEY COME TOGETHER TO DISCUSS THE LATEST TECHNOLOGIES AND ENHANCEMENTS AT THE DEVELOPER SCHOOL. **ALL DIVISIONS AND LOCATIONS** WERE REPRESENTED FOR THE FIRST TIME IN 2017.

COMPANY
IVU SHARE

IVU SHARE PRICE IN COMPARISON WITH THE TECDAX INDEX

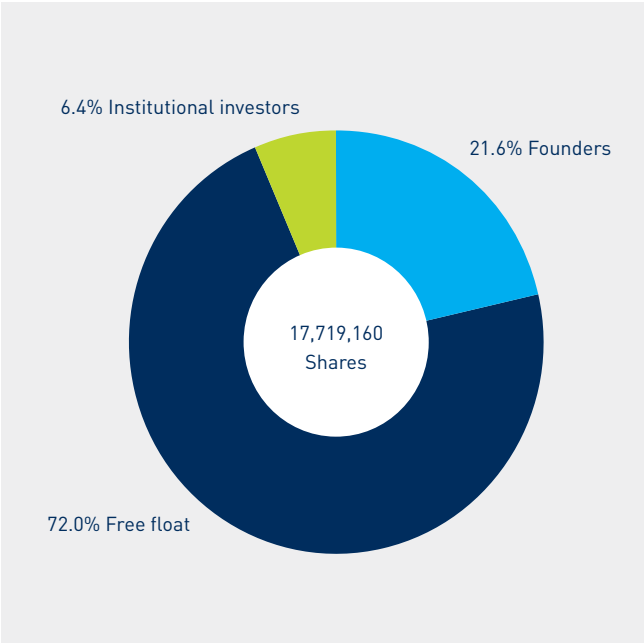
TecDAX
IVU AG

JAN 2008 – FEB 2018



FEB 2017 – FEB 2018

SHAREHOLDER STRUCTURE
AS AT 31 DECEMBER 2017

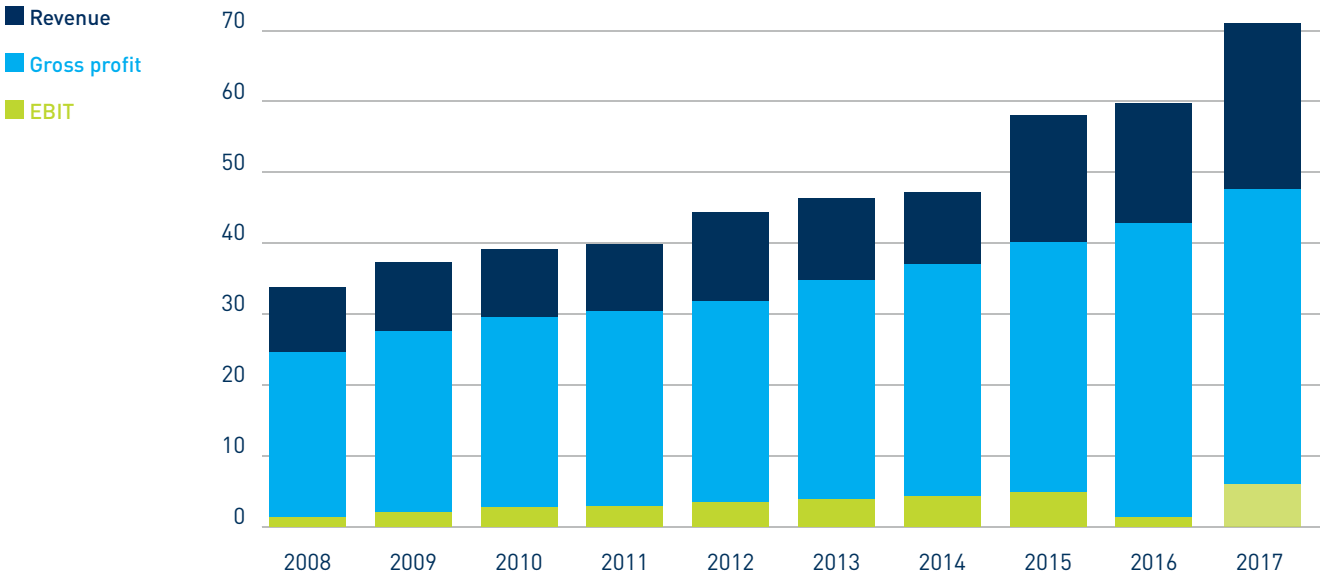


SHARES HELD BY BOARD MEMBERS
AS AT 31 DECEMBER 2017

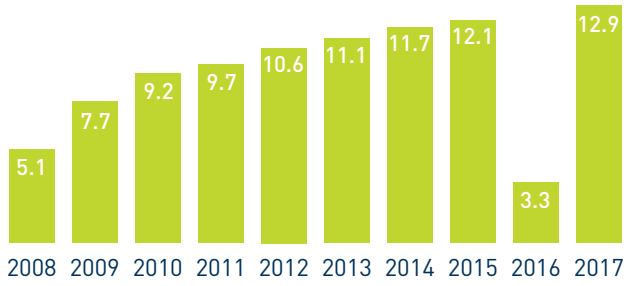
Executive Board	Shares
Martin Müller-Elschner	225,000
Matthias Rust	6,800
TOTAL, EXECUTIVE BOARD	**231,800**
Supervisory Board	
Prof Herbert Sonntag	866,000
TOTAL, SUPERVISORY BOARD	**866,000**
TOTAL, BOARD MEMBERS	**1,097,800**

COMPANY
KEY FIGURES

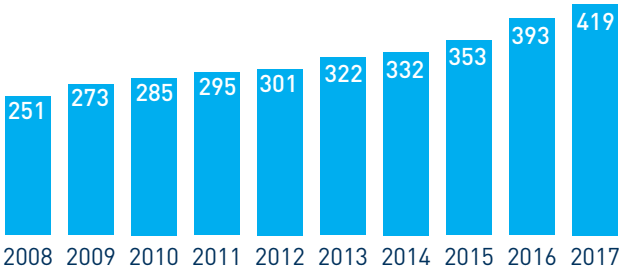
KEY FIGURES 2008-2017
€ MILLION



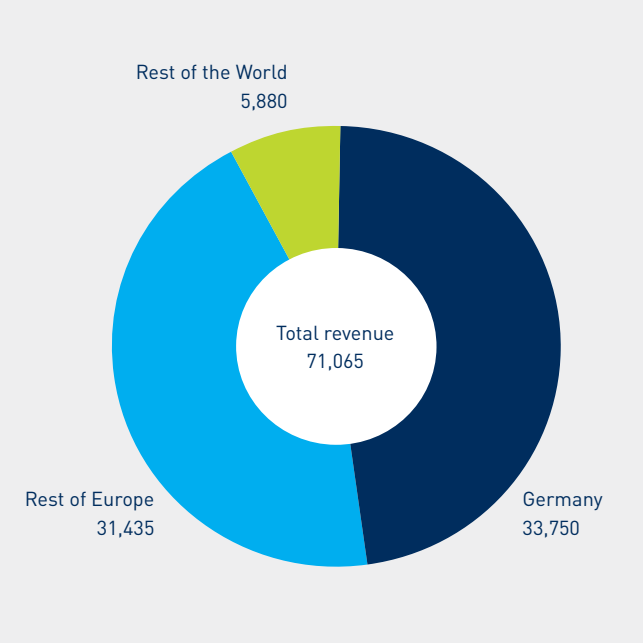
EFFICIENCY 2008-2017
EBIT/GROSS PROFIT IN %



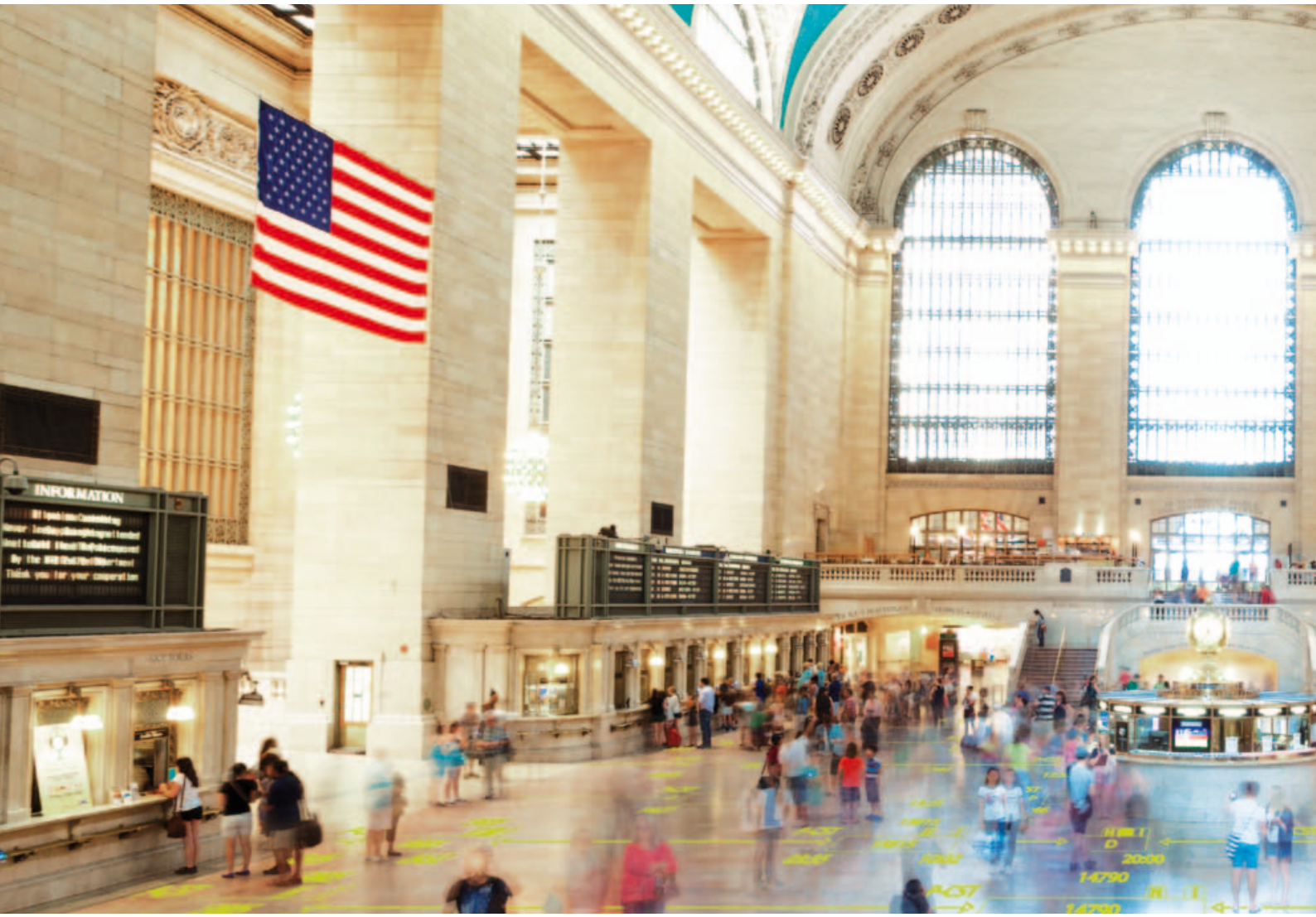
FULL-TIME EQUIVALENTS 2008-2017
AS ANNUAL AVERAGE



REVENUE 2017
€ THOUSAND



CONSOLIDATED REPORT




THE METLIFE BUILDING
45TH STREET

CONSOLIDATED REPORT
INTRODUCTION

GROUP FUNDAMENTALS

IVU develops integrated IT solutions for the segments "Public Transport" and "Logistics":

Public Transport

The integrated standard products IVU.suite and IVU.rail cover the whole spectrum of planning, operation and quality assurance for public transport companies. IVU's software and hardware systems create timetables, plan and optimise the deployment of trains and buses, dispatch drivers and vehicles, control and monitor the operation of vehicle fleets, sell tickets, cash up takings and prepare statistics. Consequently, they increase the efficiency and the quality of public transport.

Logistics

IVU's logistics products optimise the operational processes in information and transport logistics. The GIS solution IVU.locate analyses geodata, plans dynamic routes in delivery logistics and optimises the location planning of major chain stores. IVU.workforce dispatches vehicles and employees (in the field) and helps to process orders efficiently and seamlessly. The election software IVU.elect supports the preparation and flawless running of political elections, and rounds off the IVU range in conjunction with bespoke IT solutions.

IVU services customers worldwide with its locations in Berlin (headquarters), Aachen (Germany), Basel and Zurich (Switzerland), Vienna (Austria), Veenendaal (Netherlands), Paris (France), Rome (Italy), Birmingham (UK), Budapest (Hungary), Montreal (Canada), San Francisco (US), Bogotá (Colombia), Santiago (Chile), Tel Aviv (Israel), Hanoi and Ho Chi Minh City (Vietnam). The core markets of IVU are Germany, Italy, the rest of Europe and railway companies worldwide.

IVU AND THE MARKET

IVU operates in a dynamic, fast-growing market environment dominated by the three megatrends of urbanisation, mobility and digitalisation. There is strong demand all over the world for solutions providing efficient, reliable public transport in order to overcome rising traffic volumes. Digitalisation enables transport operators and local authorities to meet this high demand and improve their services.

IVU is a long-established player in this field. As a pioneer of computer-assisted transport planning, with its digital solutions, the company now helps transport operators to standardise all their operations and provide forward-looking services for the transport of tomorrow. From planning and deployment of resources to operational control, passenger information and service accounting, IVU's products make the core processes easier in line with the IVU slogan "facilitating public transport".

The integrated approach of IVU systems is a particular advantage. In the context of digitalisation, it opens up opportunities to link up departments, use data extensively and optimise and accelerate workflows on a long-term basis. The sales success of the past year, which saw IVU sign several major framework agreements, is just one of several signs that solutions like these are in demand on the market.

Rail solution remains in demand

Developed specifically for railways, the software solution IVU.rail remains the only fully integrated system on the market for planning and dispatching of vehicles and personnel alike. The IVU solution is a world leader in the field of highly complex schedule planning in particular. The planning conditions for trains present software with significant challenges: Trains always move on a track, run on sections with

varying numbers of coaches and are often in operation for days at a time. IVU.rail enables automated optimisation of the challenging schedules of trains, thus saving valuable resources.

For instance, DB Regio AG, Germany's largest local public transport provider, opted for IVU's integrated standard system last year. Under a framework agreement, the existing planning and dispatching systems at DB Regio across Germany will all be gradually replaced with IVU.rail. In future, all of DB Regio's transport networks are to perform all planning and dispatching of vehicles and staff in the rail sector with the IVU solution. MÁV-START, the Hungarian national railway's passenger transport subsidiary, is also continuing its collaboration with IVU until at least 2019. Along with 1,000 trains and 3,000 train drivers, the company now also plans and dispatches 3,000 on-board personnel as well as 3,000 stationary employees such as cashiers and safety inspectors with IVU.rail.

E-ticketing on the rise

One key growth market worldwide at present is electronic fare management. Chip card-based e tickets are now the standard, and growing numbers of transport operators offer their customers corresponding systems. With its longstanding ticketing expertise and the close integration of its solutions within the IVU.suite, IVU is especially well positioned here.

This is also evidenced by a framework agreement that Connexxion, the Dutch subsidiary of the French Transdev Group, signed with IVU in the last fiscal year. It paves the way for all current and future bus concessions of the company to be equipped with an overall system for fleet management, cashless payment for paper tickets and e-ticketing. Under this agreement, IVU will be equipping around 2,000 vehicles with new on-board computers and scanners by 2019.

Transdev GmbH – Germany's largest private operator of rail and bus services with 43 subsidiaries – has also signed a related framework agreement with IVU. In conjunction with IVU, the company is now building a central client system for ticketing and fleet management. All newly acquired route networks of the German Transdev subsidiaries will thus receive a simple solution for complete handling of ticket sales.

Strong domestic markets

IVU has traditionally enjoyed great success in Europe, particularly in the German-speaking region. The company benefits from a high level of recognition and strong networks here. To reinforce its market position further, IVU has established a new subsidiary, IVU Austria GmbH in Vienna, Austria, and acquired another, IVU Traffic Technologies Schweiz AG in Zurich, Switzerland. Numerous transport operators in both countries already rely on IVU's products. The Swiss company was created through the purchase of the consultancy firm Soft Tech Informatik AG (STI). The aim is to strengthen local sales, expand customer service and unlock new potential – including in the Eastern European market.

IVU's solutions also remain in demand worldwide. For instance, the Peruvian bus company Buena Estrella has ordered the IVU.suite to deploy its fleet of 400 buses in Lima efficiently and offer its passengers app-based modern e-ticketing and passenger information. In December, IVU also successfully completed its first project on the African continent. On the basis of the IVU.suite, the Bus Rapid Transit (BRT) system in the Nigerian metropolis of Lagos is now kitted out with a brand-new planning and traffic control system, including on-board computers for more than 400 buses. The World Bank guaranteed stable and secure financing of the project.

CONSOLIDATED REPORT
INTRODUCTION

RESEARCH AND DEVELOPMENT

IVU has been developing complex software solutions for public transport and logistics for over 40 years. Continued development and involvement in promising research projects are strengthening IVU's standard products. Close collaboration with transport companies and partners in industry and science generates impetus for new functionalities and application models of IVU systems. Last year, for instance, IVU became involved in the "Digital Mobility – Vehicles and Stops" research project funded by the German Federal Ministry of Transport and Digital Infrastructure.

IVU has good contacts with technical colleges and universities, including Ilmenau University of Technology, RWTH Aachen University, Technical University Munich and the Technical University of Applied Sciences, Wildau. In so-called "user groups," IVU customers talk to IVU engineers on a regular basis about their requirements regarding the IVU software. Currently organised in seven specialist categories, individual customers report in the groups on their practical experience and their requirements of IVU products. In this way, practical and science-based knowledge is transferred directly to the development process.

IVU is also addressing the future of mobility. In conjunction with BestMile, provider of the first platform for operation and optimisation of autonomous and new mobility solutions, IVU has launched the "Autonomous Driving for Public Transport" (ADxPT) project. The aim is to develop and test a demonstration system that enables public transport operators to operate mixed fleets of autonomous and driver-controlled vehicles in an integrated and efficient way.

In the past year, IVU invested €2.1 million in R&D. Most of IVU's research and development work is carried out within the regular product and release cycles. These development costs continue not to be capitalised. The two divisions of IVU cooperate closely in order to utilise existing potential across the entire product range.

PERSONNEL

The positive development of the order situation is also reflected by the growing headcount at IVU. To handle the acquired projects, enhance the product range and provide customers with high-quality support, IVU needs well-trained software and project engineers with sector-specific specialist knowledge. Their qualifications and motivation form the basis for lasting success and further growth. Therefore, most IVU employees are graduates. In 2017, the proportion averaged 84%.

The labour market for IT specialists remained challenging last year. The fact that the required employees were still recruited testifies to IVU's good reputation as an employer and the working environment at the company. As at 31 December 2017, IVU had a total workforce of 525 employees, including part-time employees and students (2016: 487). The average personnel capacity increased by 7% to 419 FTE (2016: 393) and personnel expenses climbed by 9% to €31.2 million (2016: €28.6 million). In general, IVU operates in a high-salary environment.

	2017	2016	Change
Number of employees as at 31 December	525	487	+ 8%
Average full-time equivalents	419	393	+ 7%

Ongoing training

Only those who are constantly at the forefront of technical development are equipped to develop complex IT systems. For this reason, IVU provides its employees with ongoing further training opportunities. This is essential to the development of high-quality systems on which customers can rely. This has led to the development of an active knowledge culture within the company. One example of this is the in-house Developer School. It gives software engineers at IVU the opportunity to engage collectively with their col-

leagues with regard to new technologies and further developments in their programming environments. New functions for the IVU.pad were devised and then implemented in a "hackathon" on a cross-team basis.

Recruitment measures

To attract graduates, IVU regularly attends careers fairs, particularly at its main locations of Aachen and Berlin. Last year, IVU attended 13 of these events.

Cooperations with universities play a key role in recruitment. In this context, IVU's software engineers lend their expertise in projects or prepare seminars and lectures. As a result, students gain insight into the technical challenges in public transport and the day-to-day tasks at IVU. Cooperation partners in 2017 included RWTH Aachen University, the Technical University of Berlin, the Free University Berlin, the Technical University of Applied Sciences, Wildau, Ilmenau University of Technology and the Karlsruhe Institute of Technology (KIT).

Qualification programme

Fast and extensive qualification of new employees is the main ingredient in the success of IVU projects. With this in mind, IVU has set up a structured induction programme. In intensive training courses, the future software and project engineers acquire the basic knowledge they need to be able to perform their tasks successfully. The seminars cover topics such as the how public transport works, IVU products and the requirements for customer-oriented project management. This brings new employees up to speed more quickly and enables them to take on their own projects in a short time frame.

Diversity

IVU is characterised by an open corporate culture. The aim is for employees to feel at home in the company. Therefore, diversity is hugely important to IVU. People from a total of 30 nations work at the various locations. The proportion of women is 29%. It is therefore well above the proportion of female graduates in the relevant MINT subjects, which averages 19%.

CONSOLIDATED REPORT
EARNINGS, FINANCES, ASSETS

RECORD EARNINGS IN 2017

IVU Traffic Technologies AG has returned to its successful path. The company's own targets have been significantly exceeded with record earnings (EBIT) of €6.1 million and revenue of €71.1 million. All key figures are the highest in the firm's more-than-40-year history.

SHARP RISE IN **REVENUE**

IVU continued the growth trend of recent years in the 2017 fiscal year. For instance, revenue climbed by 19% to €71.1 million (2016: €59.8 million). The forecast of €62 million was significantly exceeded as a result of short-notice orders on the basis of framework agreements concluded in 2017 and increased hardware sales completed in 2017.

REVENUE **BREAKDOWN**

48% of revenue was generated on the German market and 52% from export business in 2017. Revenue on the German market slightly decreased to €33.8 million (2016: €34.4 million), while international revenue rose to €37.3 million (2016: €25.4 million).

The core market of Public Transport accounted for revenue of €65.5 million in 2017 (2016: €54.0 million). The Logistics segment contributed a revenue of €5.5 million (2016: €5.7 million).

COST OF **MATERIALS**

The increase in revenue with a high hardware share, particularly in December of the reporting year, caused the cost of materials to rise by €6.9 million to €24.2 million (2016: €17.3 million).

RISE IN **GROSS PROFIT**

The value added within IVU was reflected mainly by its gross profit, which rose by 11% to €47.7 million (2016: €42.8 million). Business performance, particularly in the fourth quarter when a number of major projects were concluded, meant that the gross profit forecast for 2017 of €45 million was significantly exceeded.

COSTS, DEPRECIATION AND AMORTISATION

Staff costs climbed by 9% in 2017 to €31.2 million (2016: €28.6 million). Average personnel capacity increased by 7% in the same period. In the competitive IT industry, IVU operates at a generally high salary level for well-trained specialists.

Depreciation and amortisation on non-current assets decreased to €1.2 million (2016: €1.5 million), largely due to the conversion of licence payments for software to annual payment and non-recurring effects of €0.1 million in 2016.

Other operating expenses decreased to €9.1 million in 2017 (2016: €11.3 million). This was mainly because of write-downs of €2.2 million in 2016.

SHARP RISE IN **EBIT**

At €6.1 million (2016: €1.4 million), earnings (EBIT) reflect the growth in revenue and gross profit. The key performance indicator of EBIT/gross profit came to 12.9% in the reporting year (2016: 3.3%).

FINANCIAL STRENGTH EXCELLENT

Equity rose by €5.2 million to €44.0 million in the reporting year (2016: €38.8 million). At 64%, the equity ratio for 2017 was down slightly on the previous year (2016: 66%). The company's net assets are stable and its overall financial strength remains very good.

GOOD **LIQUIDITY**

Following completion of many projects, receivables from construction contracts fell by €6.1 million to €9.0 million (2016: €15.1 million). Many projects were concluded around the end of the year, hence the €12.3 million rise in trade receivables to €26.6 million (2016: €14.3 million).

Operating cash flow rose by €1.2 million to €3.8 million (2016: €2.6 million). Taking into account the cash flow for investing activities of €-0.9 million, cash and cash equivalents increased by €2.9 million.

With €11.5 million in cash and cash equivalents as at 31 December 2017 (2016: €8.6 million), IVU's financial position can be rated very good.

IVU was able to meet its financial obligations at all times in the reporting year. The company did not utilise its total credit facilities of €3.2 million. IVU's clients have a correspondingly positive assessment of its credit quality.

GOOD **ORDER SITUATION**

The order backlog for the current year was around €50 million as at 28 February 2018. A considerable portion of the targets for 2018 are thus already covered by the order situation.

SUMMARY

IVU enjoyed a successful 2017, with pleasing growth in revenue, gross profit and EBIT. For 2018, we expect our profitable growth trend to continue and are optimistic about the future on account of the strong order situation and promising sales prospects.

CONSOLIDATED REPORT
FORECAST

MARKET POSITION

IVU further reinforced its position in the core market of public transport during 2017 and is a sought-after contact partner both in Germany and internationally. In addition to the integrated product range IVU.suite, the standardised implementation process IVU.xpress and the straightforward all-round operations management in IVU.cloud are appreciated by transport companies of all types and sizes.

With the integrated rail solution IVU.rail, we again acquired several new customers during the reporting year and further expanded our extremely strong position in the market. As it is still the sole standard product for the entire rail sector (local, intercity, regional and freight transport), the outlook for IVU.rail in 2018 is also favourable.

Development in the logistics segment was stable in 2017. Strong ties with existing customers in the sector are leading to repeated new orders.

The key performance indicators for achieving the strategic goals are the development of revenue as an indicator of the growth rate, gross profit (gross revenue plus other operating income and less cost of materials) as an indicator of value-added, and EBIT as an indicator of profitability. Our key performance indicator for efficiency is the ratio of EBIT/gross profit.

OUTLOOK

With the market environment remaining positive, we expect positive business performance in 2018. Revenue is strongly influenced by project-related hardware deliveries, which can possibly be deferred past the end of the year.

On the basis of the order backlog and the transactions expected as well as the average orders on the basis of framework agreements for 2018, consolidated revenue is planned at at least €72 million (actual figure for 2017: €71.1 million) and gross profit is planned at around €50 million (actual figure for 2017: €47.7 million). With continuing personnel growth, we currently expect EBIT of €4 million to €5 million for 2018.

Digitalisation of the transport industry is in full swing, and we aim to be the leading IT partner for public transport in our target markets. To achieve this goal, we must resolutely invest in additional employees for product development, project work and sales, especially in the years ahead. This may lead to a slightly lower margin in the short term. In the medium term, as the company continues to grow, we expect gross profit to grow by 7% per year on average, and are targeting a consistent gross profit margin of 12.5%.

CONSOLIDATED REPORT
RISK AND OPPORTUNITY REPORT

RISK MANAGEMENT

To secure the long-term success of the company, we must identify and manage all types of risks. Our risk management aims to identify, analyse and manage risk at an early stage. The internal control system is embedded in the risk management system. Management uses deviation analyses as an instrument for corporate control.

The Executive Board assumes overall responsibility for internal controlling and risk management systems with regard to the accounting processes at the company. This includes all factors that can significantly influence the accounting and overall assessment of the financial statements, including the management report.

Risk management is based on the monthly reporting system, which contains important key performance indicators and compares planned figures with the actual figures. The subsidiaries are included in the reporting system. Regular meetings held with those responsible for revenue, cost and deadline development ensure that the Executive Board is provided with timely information about critical developments and that corrective measures can be initiated if required. To ensure that available liquidity and credit lines are adequate, liquidity is planned on a rolling basis and developments in cash and cash equivalents are monitored on a daily basis.

Risk management is a fixed item on the agenda at every meeting of the Supervisory Board and is discussed in detail at each of its meetings. The relevant risks are assessed based on the extent of possible damages and the probability of occurrence. The company has identified the following significant risks and classified them as low, medium or high based on its assessment of their estimated probability of occurrence and the extent of possible damages: The following risks and opportunities relate in equal measure to the Public Transport and Logistics segments.

RISKS

Export business

The opportunities presented by internationalisation have to be balanced against the costs of accessing new markets, which always represent an upfront investment in uncertain successes. In addition, IVU is subject to the general political and economic conditions of the countries in which it operates. This naturally brings with it risks that range from project delays to project cancellation and non-payment. Our assessment of the probability of occurrence and the extent of possible damages remains medium. To limit these types of risks, we try to minimise the costs of accessing new markets by adopting a strategic focus on more promising countries in target markets. To avoid the risk of non-payment, we use a range of instruments for securing payment, such as letters of credit, advance payments or payments on account.

Defaults

Defaults are a potential risk in all large and, in particular, international projects as experience shows that political and economic conditions can change quickly. In particular, changes in decision makers can have an impact on payment deadlines. The probability of occurrence and the extent of damages remain unchanged at high and medium respectively. Measures to counter these risks include delivery-oriented payment plans and efficient project management. In addition, the payment practices of our customers can generally be considered good as the majority of them are from the public sector.

Project business

The project business at IVU is based entirely on service contracts that are based on the standard products of IVU.suite. This naturally brings with it the risk that the workload involved turns out to be more than was planned. Any resulting delivery delays may lead to

claims being made for compensation. Our assessment of the probability of occurrence and the extent of possible damages remains medium. Measures to reduce these risks are efficient project management as well as adherence to deadlines and quality standards.

Quality deficits

In the event of deficiencies in the software or hardware supplied, this can delay the acceptance and, consequently, the payment of invoices. The probability of occurrence and the extent of damages both remain unchanged at medium. One measure to counter this risk is consistent quality management in accordance with ISO 9001. In addition, the steadily increasing degree of standardisation of IVU systems reduces the risk of quality deficits because only customer-specific adaptations rather than special developments are required and all products can be subjected to intensive testing.

Currency risks

Since IVU conducts a part of its business outside the euro zone, exchange rate fluctuations may have an impact on results. Foreign currency risks apply to receivables, liabilities, cash in hand and cash equivalents that do not correspond to the functional currency used by IVU. The probability of occurrence and the extent of potential damages remain unchanged at high and low respectively. As a hedge for cash flows in foreign currency, IVU concludes currency forward transactions as required. Here, the anticipated inflows and outflows are estimated on the basis of contracts concluded and payment agreements made. Currently, no accounting units have been established for showing hedging relationships. On the balance sheet date, there were no open currency forward transactions.

Shortage of specialists and managers

A specialised software company such as IVU derives its strength on the market from the ability of its highly qualified specialists and managers to carry out demanding projects and meet special customer requirements. There are risks associated with the potential loss of expertise. Our assessment of the probability of occurrence remains unchanged at low with the extent of damages at medium. Measures to reduce these risks include a long-term human resources policy to ensure low rates of staff turnover and a corporate culture based on openness and trust, which promotes a high level of staff loyalty.

Overall risk assessment

We are still assuming low risk overall.

OPPORTUNITIES

The marketing strategy adopted by IVU aims to further expand the company's strong position in the domestic market and to systematically exploit the opportunities presented by internationalisation. As one of the few system manufacturers worldwide, IVU offers IT solutions for all processes at a transport company – from planning to operations and through to settlement. Our range of systems for public transport, IVU.suite, puts us among the market leaders for integrated solutions.

In particular, our business on the domestic market and in small and medium-sized projects is extremely stable and therefore easily predictable. Conversely, it is difficult to plan the placement of orders and the progress of major projects conducted in mega-cities outside of Germany and with national railway operators. In these situations, a single decision can have a major impact on IVU's result, also with the potential for significant upward adjustments.

Overall, the opportunities for IVU are assessed as very good. We are profiting from the sustained trends towards urbanisation, digitalisation and mobility, which are forcing cities and transport operators to invest increasingly in the expansion and modernisation of their systems. As a result of successfully implemented projects, IVU has become a sought-after project partner. We will capitalise on our strong reputation and will further expand our market position through targeted marketing activities in our chosen markets.

CONSOLIDATED REPORT SUPPLEMENTARY INFORMATION

SUPPLEMENTARY INFORMATION AS PER SECTIONS 315 (1) SENTENCE 5, 315A (1) AND (2) AND 315 (4) OF THE GERMAN COMMERCIAL CODE (HGB)

The Executive Board of IVU AG received remuneration of €850 thousand (2016: €707 thousand) for the 2017 financial year. The remuneration of the Executive Board comprises a fixed (€488 thousand) and a variable portion (€362 thousand). The variable portion amounted to 43% (2016: 25%) of total remuneration in the year under review.

On 25 May 2016, the Annual General Meeting resolved to exempt the company from the duty to disclose the remuneration of individual members of the Executive Board for the financial years 2016 to 2020 inclusive. The remuneration of the Supervisory Board does not contain a performance-related component and consists of fixed basic remuneration. No attendance fee is agreed.

The company's share capital of €17,719,160 is divided into 17,719,160 shares with a notional value of €1 each. By way of resolution of the Annual General Meeting on 25 May 2016, the Executive Board was authorised, with the approval of the Supervisory Board, to increase the company's share capital on one or several occasions by up to 30% of the current share capital of €17,719,160, i.e. by €5,315,748, by issuing new no-par value bearer shares against cash or non-cash contributions by 24 May 2021. The Executive Board can make use of this authorisation for any legally permissible purpose. In 2017, the Executive Board did not make use of this authorisation.

Furthermore, by way of resolution of the Annual General Meeting on 25 May 2016, the Executive Board was authorised to acquire shares in the company for any purpose permitted under Section 71 (1) No. 8 of the German Stock Corporation Act (AktG) in the context of the statutory restrictions and in line with the following provisions. The authorisation is restricted to the acquisition of shares with a proportional amount of the share capital of €1,771,916, i.e. 10% of the share capital of €17,719,160.

There are no restrictions with regard to voting rights or transfer. The Executive Board is not aware of any agreements of this kind between individual shareholders. Furthermore, no material agreements have been made that contain regulations for a change of control as a result of a takeover bid.

According to Article 7 of the company statutes, the Supervisory Board appoints the Executive Board members and determines the number thereof. Further details on appointment and dismissal are governed by Sections 84 ff. AktG.

According to Article 17 of the company statutes, the Supervisory Board is authorised to make changes to the company statutes that relate solely to the wording. Otherwise, the company statutes are adopted as per Section 179 AktG by the Annual General Meeting by a majority of at least three quarters of the share capital represented at the time of voting on the resolution.

We represent that, to the best of our knowledge and in accordance with applicable accounting principles, the consolidated financial statements present a true and fair view of the Group's net assets, financial situation and results of operation, and that the Group management report describes fairly, in all material respects, the Group's business trend and performance, the Group's position and the significant risks and opportunities of the Group's expected future development.

DECLARATION ON CORPORATE GOVERNANCE AS PER SECTION 315D OF THE GERMAN COMMERCIAL CODE (HGB)

The company has published the corporate governance declaration on its website, www.ivu.com. The corporate governance declaration comprises the declaration pursuant to Section 161 AktG regarding compliance with the German Corporate Governance Code.

Berlin, 7 March 2018

The Executive Board

Martin Müller-Elschner

Matthias Rust

Leon Struijk

FINANCIAL STATEMENTS

FINANCIAL STATEMENTS
FINANCIAL POSITION

CONSOLIDATED STATEMENT OF FINANCIAL POSITION IN LINE WITH IFRS
AS AT 31 DECEMBER 2017

Assets	Notes	31 Dec 2017	31 Dec 2016
		€ thousand	€ thousand
A. Current assets			
1. Cash and cash equivalents	(101)	11,521	8,614
2. Current trade receivables	(93) - (96)	26,603	14,291
3. Current receivables from contract manufacturing	(97) - (99)	9,059	15,135
4. Inventories	(92)	1,684	2,077
5. Other current assets	(100)	5,616	3,355
Total current assets		**54,483**	**43,472**
B. Non-current assets			
1. Property, plant and equipment	(88) - (91)	1,257	1,770
2. Intangible assets	(88) - (91)	12,028	11,770
3. Non-current trade receivables	(93) - (96)	253	768
4. Deferred taxes	(124) - (128)	802	1,020
Total non-current assets		**14,340**	**15,328**
TOTAL ASSETS		**68,823**	**58,800**

Liabilities	Notes	31 Dec 2017	31 Dec 2016
		€ thousand	€ thousand
A. Current liabilities			
1. Current trade payables		2,038	2,568
2. Liabilities from contract manufacturing	(97) - (99)	5,436	4,850
3. Provisions	(120) - (121)	1,281	530
4. Provisions for taxes	(124) - (127)	723	42
5. Other current liabilities	(122) - (123)	10,570	7,102
Total current liabilities		**20,048**	**15,092**
B. Non-current liabilities			
1. Provisions for pensions	(105) - (116)	4,775	4,873
2. Other		0	5
Total non-current liabilities		**4,775**	**4,878**
C. Equity			
1. Share capital	(102) - (104)	17,719	17,719
2. Capital reserves	(102) - (104)	0	0
3. Retained earnings		-932	-1,128
4. Unappropriated surplus	(102) - (104)	27,175	22,199
5. Foreign exchange reconciling item		38	40
Total equity		**44,000**	**38,830**
TOTAL LIABILITIES		**68,823**	**58,800**

FINANCIAL STATEMENTS INCOME

CONSOLIDATED INCOME STATEMENT IN LINE WITH IFRS
FOR THE 2017 FINANCIAL YEAR

	Notes	2017	2016
		€ thousand	€ thousand
Sales revenues	(130)	**71,065**	**59,758**
Other operating income	(131)	898	426
Cost of materials	(132)	-24,245	-17,345
Gross profit		**47,718**	**42,839**
Personnel expenses	(133)	-31,224	-28,614
Depreciation and amortisation on non-current assets	(134)	-1,242	-1,513
Other operating expenses	(135)	-9,120	-11,318
Operating results (EBIT)		**6,132**	**1,394**
Financial income		1	2
Financial expenses		-178	-172
Pre-tax profit (EBT)		**5,955**	**1,224**
Income taxes	(124) - (128)	-979	-1,431
Consolidated net loss/profit		**4,976**	**-207**
		€	€
Earnings per share (basis and diluted)	(136) - (137)	0.28	-0.01
Average shares outstanding (in thousand shares)	(136) - (137)	17,719	17,719

CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME
FOR THE 2017 FINANCIAL YEAR

	Notes	2017	2016
		€ thousand	€ thousand
Consolidated net loss/profit		**4,976**	**-207**
Currency translation		-2	-11
Items that may be reclassified subsequently to profit or loss		**-2**	**-11**
Actuarial gains/(losses) from the remeasurement of pension commitments		283	-279
Income tax effect		-87	86
Items that will not be reclassified subsequently to profit or loss		**196**	**-193**
Other comprehensive income after taxes		**194**	**-204**
CONSOLIDATED TOTAL COMPREHENSIVE INCOME AFTER TAXES		**5,170**	**-411**

FINANCIAL STATEMENTS
CHANGES IN EQUITY

CONSOLIDATED STATEMENT OF CHANGES IN EQUITY IN LINE WITH IFRS
FOR THE FINANCIAL YEARS 2016 AND 2017

	Share capital	Capital reserves	Retained earnings	Foreign exchange reconciling item	Unappro-priated surplus / cumulative loss	Total
	€ thousand	€ thousand	€ thousand	€ thousand	€ thousand	€ thousand
Notes	(102)–(104)	(102)–(104)				
As at 1 January 2016	**17,719**	**1,991**	**-935**	**51**	**20,415**	**39,241**
Consolidated net loss 2016	0	0	0	0	-207	-207
Other comprehensive income, net of tax	0	0	-193	-11	0	-204
Consolidated recognised results after tax	**0**	**0**	**-193**	**-11**	**-207**	**-411**
Offsetting	0	-1,991	0	0	1,991	0
AS AT 31 DECEMBER 2016	**17,719**	**0**	**-1,128**	**40**	**22,199**	**38,830**
As at 1 January 2017	**17,719**	**0**	**-1,128**	**40**	**22,199**	**38,830**
Consolidated net income 2017	0	0	0	0	4,976	4,976
Other comprehensive income, net of tax	0	0	196	-2	0	194
Consolidated recognised results after tax	**0**	**0**	**196**	**-2**	**4,976**	**5,170**
AS AT 31 DECEMBER 2017	**17,719**	**0**	**-932**	**38**	**27,175**	**44,000**

FINANCIAL STATEMENTS
CASH FLOWS

CONSOLIDATED STATEMENT OF CASH FLOWS IN LINE WITH IFRS
FOR THE 2017 FINANCIAL YEAR

	Notes	2017	2016
		€ thousand	€ thousand
1. Operating activities			
Group earnings before tax of the period		5,955	1,224
Depreciation and amortisation on non-current assets	(134)	1,242	1,513
Change in provisions		936	83
Net interest income		177	170
Other non-cash expenses/income		662	-11
Net gain/loss from fixed-asset disposal		1	0
		8,973	**2,979**
Change of items of working capital and borrowings			
Inventories		-370	1,149
Receivables and other assets		-7,923	1,990
Liabilities (without provisions)		3,388	-3,209
		4,068	**2,909**
Interest paid		-178	-172
Income taxes paid		-94	-128
CASH FLOW FROM OPERATING ACTIVITIES		**3,796**	**2,609**
2. Investing activities			
Outflows for investments in non-current assets		-993	-1,502
Inflow from the disposal of fixed assets		2	0
Cash payments for the acquisition of shares in consolidated subsidiaries less cash and cash equivalents acquired		101	0
Interest received		1	2
CASH FLOW FROM INVESTING ACTIVITIES		**-889**	**-1,500**
3. Cash and cash equivalents			
Change in cash and cash equivalents		2,907	1,109
Cash and cash equivalents at beginning of period		8,614	7,505
CASH AND CASH EQUIVALENTS AT END OF PERIOD	(101)	**11,521**	**8,614**

+ = Cash inflow
– = Cash outflow

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS


P-CST
06:27
14400
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13876
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13935
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11710
03:26
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12620
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11810
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NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

A. GENERAL INFORMATION ON THE COMPANY

(1) The parent company of the IVU Group is IVU Traffic Technologies AG (IVU AG), based at Bundesallee 88, 12161 Berlin, Germany. It was founded on 4 August 1998 and is entered in the commercial register of the Berlin-Charlottenburg Local Court under HRB 69310.

(2) The Executive Board adopted the consolidated financial statements as at 31 December 2017 and the Group management report for the 2017 financial year on 7 March 2018 and then submitted them to the Supervisory Board for approval. The Supervisory Board is expected to approve them at its meeting on 21 March 2018.

(3) The business activities of the Group comprise the development, manufacture and marketing of software for planning, organisation and information processing for public administrations, transport companies and other public and private sector operators. This includes research, the formulation of expert reports, consulting and training in these areas. The average number of employees in the Group was 505 in 2017 and 476 in 2016.

(4) The Group is divided into two main segments: Public Transport and Logistics.

(5) The main customers of the Group are operators of public transport in Germany, Europe and selected countries in the world. The IVU Group is represented at locations in Berlin (headquarters), Aachen (Germany), Basel and Zurich (Switzerland), Vienna (Austria), Veenendaal (Netherlands), Paris (France) Rome (Italy), Birmingham (UK), Budapest (Hungary), Montréal (Canada), San Francisco (United Sates), Bogotá (Colombia), Santiago (Chile), Tel Aviv (Israel) Hanoy and Ho Chi Minh City (Vietnam).

(6) The company is listed in the Prime Standard (Deutsche Börse AG) on the Frankfurt stock exchange.

B. ACCOUNTING POLICIES

Basis of preparation

(7) The consolidated financial statements of IVU AG were prepared in accordance with the International Financial Reporting Standards (IFRS) as applicable in the EU and the applicable regulations of section 315e (1) of the Handelsgesetzbuch (HGB – German Commercial Code). The consolidated financial statements were prepared in euro. Unless stated otherwise, all amounts are in thousands of euro.

(8) The consolidated financial statements of IVU AG were prepared on the basis of the historical cost principle. This does not apply to financial assets available for sale and carried at fair value.

Changes in accounting policies

(9) The accounting policies applied in the 2017 financial year are the same as those used in the previous year.

Effects of new accounting standards

(10) The IFRS standards already published but not yet adopted are presented below.

In July 2014, the IASB published the final version of **IFRS 9** Financial Instruments, which replaces IAS 39 Financial Instruments: Recognition and Measurement and all prior versions of IFRS 9. IFRS 9 combines the three project phases for accounting for financial instruments, "Classification and Measurement", "Impairment" and "Hedge Accounting". IFRS 9 is effective for the first time for financial years beginning on or after 1 January 2018. Earlier adoption is permitted. With the exception of hedge accounting, the standard is effective retroactively, though comparative information does not have to be disclosed. Generally, barring a few exceptions, the regulations for hedge accounting are to be applied prospectively. The Group

will apply the new standard from 1 January 2018, the date of initial application according to the transitional rules, under the modified retrospective method. In the 2017 financial year, the Group conducted a comprehensive assessment of the effects of all three aspects of IFRS 9. Overall, the Group does not expect any significant effect on its statement of financial position, neither from changes from applying the impairment regulations of IFRS 9.

IFRS 15 was published in May 2014 and introduces a five-step model framework for accounting for revenue from contracts with customers. Under IFRS 15, revenue is recognised at the amount of consideration to which an entity expects to be entitled in exchange for transferring promised goods or services to a customer (the transaction price as defined in IFRS 15). The new standard on revenue will replace all current regulations on revenue recognition under IFRS. It is effective for financial years beginning on or after 1 January 2018, either in the form of full retrospective adoption or modified retrospective adoption. Early adoption is permitted. In 2017, the Group analysed the impacts of IFRS 15 in more detail with regard to major long-term projects as well as with regard to different contract types. Furthermore, the Group is taking into account clarifications published by the IASB in April 2016 and will monitor further developments.

The Group provides installation services and furthermore provides licenses, hosting and maintenance services. These services are sold either singly in contracts with customers or as a package together with the sale of equipment to customers. The Group's assessment with regard to the installation services is that the services over a period give rise to assets that do not present any alternative potential uses for the customers. In terms of the contracts analysed, the Group at any point during the contract execution has a legal claim to appropriate remuneration for the services performed. The assessment found that the method previously used to measure the stage of completion will also be appropriate under IFRS 15.

For income from licence sales, unless it is attributable to installation services, the Group's assessment is that under IFRS 15, revenue continues to be recognised on a time-specific basis as soon as the licence is delivered and can be used by the customer.

Regarding hosting and maintenance services, the Group's assessment is that period-specific recognition of revenue also continues to be carried out under IFRS 15 here, as the customer benefits from the service while it is performed.

Apart from the requirement to provide more extensive details of the Group's revenue from contracts with customers, the Group does not expect application of IFRS 15 to have any major impacts on the consolidated balance sheet and/or the consolidated statement of comprehensive income.

In January 2016, the IASB published the new standard on accounting for leases. For most leases, this requires the lessee to report its right to use the leased asset and a corresponding lease liability. For lessors, however, there are only minor changes compared to the classification and recognition of leases in accordance with IAS 17. **IFRS 16** requires additional disclosures in the notes for both lessees and lessors. IFRS 16 is effective for the first time for financial years beginning on or after 1 January 2019. Early adoption is permitted with the proviso that IFRS 15 (Revenue from Contracts with Customers) has already been adopted or is adopted as at the same date as IFRS 16. The Group intends to adopt the new standard as at its prescribed effective date. It is currently expected that in addition to leased vehicles, the changeover effect will mostly affect the properties rented by the Group. It is estimated that the new standards will lengthen the statement of financial position. However, the precise extent of their effects has yet to be determined.

(11) The IASB and the IFRS IC published further proclamations in the reporting period that had or will

have no material impact on the consolidated financial statements.

Significant judgements, estimates and assumptions

(12) In preparing the consolidated financial statements, the management makes judgements, estimates and assumptions that affect the amount of the income, expenses, assets and liabilities reported, the related disclosures and the disclosure of contingent liabilities.

(13) The key forward-looking assumptions and other main sources of uncertainty in the estimates at the end of the reporting period, on account of which there is a significant risk that a material adjustment to the carrying amounts of assets and liabilities could be necessary within the next financial year, are discussed below. The assumptions and estimates of the Group are based on parameters as at the time the consolidated financial statements were prepared. However, these conditions and the assumptions about future developments can change due to market developments and market conditions beyond the control of the Group. Such changes are not taken into account in the assumptions until they occur.

(14) Impairment on goodwill: The IVU Group tests goodwill for impairment based on the regulations of IAS 36. Impairment testing is based on the future cash flows to be generated for individual assets or groups of assets combined as cash-generating units. Further details on impairment testing can be found in paragraphs (89) and (90). The carrying amount of the tested goodwill was €11,349 thousand as at 31 December 2017 (previous year: €11,349 thousand).

(15) Project measurement: The IVU Group recognises revenue on the basis of the estimated performance in projects. Performance estimates are made based on an estimated quantity of hours or on the basis of contractually agreed milestones and continuously updated. Further details on revenue from projects recognised but not yet invoiced can be found in paragraphs (97) and (98).

(16) Deferred tax assets: Deferred tax assets are recognised for all unutilised tax loss carryforwards and temporary accounting differences to the extent that it is likely, or that there is substantial objective evidence, that there will be future taxable profit available against which the losses can actually be used. The calculation of the amount of deferred tax assets requires an estimate by the management based on the expected timing and amount of future taxable income together with future tax planning strategy (timing of tax events, consideration of tax risks, etc.). Deferred tax assets on loss carryforwards amounted to €3,988 thousand (2016: €3,292 thousand) as at 31 December 2017. Unutilised corporation tax losses for which no deferred tax assets have been recognised amount to €25.6 million (2016: €26.2 million), and unutilised trade tax losses to €20.8 million (2016: €21.2 million). Deferred tax assets of €4.7 million exceed deferred tax liabilities of €3.9 million. The balance sheet shows netted figures, hence the reporting of a deferred tax asset of €802 thousand. Further details can be found in paragraphs (124) through (128).

(17) Pensions and other post-employment benefits: The book value of the provisions as well as the cost of post-employment defined benefit plans is determined on the basis of actuarial calculations. The actuarial valuation is based on assumptions regarding discount rates, the expected pension age, future wage and salary increases, mortality and future pension increases. Owing to the long-term nature of these plans, such estimates are subject to significant uncertainty. The provision for pensions and similar obligations was €4,775 thousand (2016: €4,873 thousand) as at 31 December 2017. Further details can be found in paragraph (105) and the following.

Consolidation principles

a) Subsidiaries

(18) The consolidated financial statements comprise the financial statements of IVU AG and the subsidiaries it controls as at 31 December 2017. The Group controls an investee when it is exposed to, or has rights to, variable returns from its involvement with the investee and has the ability to affect those returns through its power over the investee. In particular, the Group controls an investee if, and only if, all the following criteria are met:

- control of the investee (i.e. based on its currently existing rights, the Group has the ability to control the activities of the investee that have a significant influence on its returns),
- risks from or rights to variable returns from its exposure in the investee and
- the ability to utilise its control so as to influence the returns from the investee.

If the Group does not hold a majority of the voting or similar rights in an investee, it takes into account all relevant facts and circumstances in assessing whether it controls an investee. These include:

- a contractual arrangement with other parties entitled to vote,
- rights resulting from other contractual arrangements,
- voting rights and potential voting rights of the Group.

If facts and circumstances suggest evidence indicating that one or more of the three control criteria have changed, the Group must check again whether it controls an investee. Subsidiaries are included in consolidation from the date when the Group gains control of them. It ends when the Group loses control of them. The assets, liabilities, income and expenses of a subsidiary that was acquired or disposed of during the reporting period are recognised in the statement of financial position or the statement of comprehensive income respectively from the date on which the Group gains control of the subsidiary until the date on which control ceases.

The gain or loss and each component of other comprehensive income are attributed to the holders of ordinary shares of the parent company and the non-controlling interests, even if this results in a negative balance for non-controlling interests. A change in the ownership interest of a subsidiary without a loss of control is accounted for as an equity transaction. The following steps are taken if the parent company loses control of a subsidiary:

- derecognition of the assets (including goodwill) and liabilities of the subsidiary,
- derecognition of the carrying amount of non-controlling interests in the former subsidiary,
- derecognition of the cumulative translation differences recognised in equity,
- recognition of the fair value of the consideration received,
- recognition of the fair value of the investment retained,
- recognition of surplus or deficit in profit or loss,
- reclassification of the parent's share of components previously recognised in other comprehensive income to profit or loss or retained earnings, as appropriate, if the Group had directly disposed of the related assets or liabilities directly.

(19) The purchase method in accordance with IFRS 3 is applied in accounting for acquisitions. Companies acquired or disposed of during the year are included in the consolidated financial statements from the date of acquisition or up to the time of sale.

(20) The excess of the cost of an acquisition over the share in the fair values of the identifiable assets and liabilities as at the date of the acquisition is referred to as goodwill and recognised as an asset. The identifiable assets and liabilities are measured at their fair values as at the acquisition date.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

(21) The following companies are included in the consolidated financial statements as subsidiaries. IVU AG's interests in them are identical to the existing voting rights.

	Share %
IVU Traffic Technologies Italia s.r.l., Rom, Italy ('IVU Italia')	100
IVU Traffic Technologies UK Ltd., Birmingham, Great Britain ('IVU UK')	100
IVU Benelux B.V., Veenendaal, Netherlands ('IVU Benelux')	100
IVU Chile LTDA., Santiago de Chile, Chile ('IVU Chile')	100
IVU Traffic Technologies Israel Ltd., Tel Aviv, Israel ('IVU Israel')	100
IVU Traffic Technologies Inc., Wilmington, Delaware, USA ('IVU USA')	100
IVU Traffic Technologies Schweiz AG, Zurich, Switzerland ('IVU Schweiz')	100
IVU Austria GmbH., Vienna, Austria ('IVU Austria')	100

In the fiscal year, a new subsidiary was established in Austria and a company in Switzerland was wholly acquired and accordingly included in the scope of consolidation.

(22) Company acquisition in 2017.

On 1 July 2017, the IVU Group acquired 100% of the shares in Soft Tech Informatik AG (renamed as IVU Traffic Technologies Schweiz AG), a Swiss consulting firm. The purchase price was paid in cash. The acquisition is intended to expand customer support and sales of IVU products in Switzerland.

The costs of this acquisition were allocated to acquired assets and liabilities based on the final purchase price allocation as follows:

	Carrying amount after acquisition € thou.
Intangible assets	18
Property, plant and equipment	7
Inventories	23
Funds	252
Other current assets	8
Trade payables	-97
Provisions and liabilities	-60
NET ASSETS	**151**
Acquisition costs	151

The cost includes a portfolio of customers recognised under intangible assets in the amount of €18 thousand, which is written down on a straight-line basis over a period of three years.

Purchase price allocation takes into account all adjusting events as at the acquisition date.

b) Consolidation adjustments and uniform measurement in the Group

(23) The annual financial statements of the subsidiaries included in the consolidated financial statements are based on uniform accounting standards and reporting periods.

(24) Intercompany balances and transactions, and the resulting intragroup gains and unrealised gains and losses between consolidated companies, have been eliminated in full. Unrealised losses were eliminated only if the transactions gave no substantial indication of an impairment of the asset transferred.

Measurement at fair value

(25) Fair value is defined the price that would have to be received from the sale of an asset or that would have to be paid for the transfer of a liability between market participants as part of an orderly transaction on the measurement date. In measuring fair value it is assumed that the transaction in which the asset is sold or the liability is transferred takes place on

- the principal market for the asset or liability, or
- the most advantageous market if there is no principal market.

The Group must have access to the principal market or the most advantageous market. The fair value of an asset or liability is measured based on the assumptions that market participants would use when pricing the asset or liability. It is assumed that the market participants act in their economic best interest. A fair value measurement of a non-financial asset takes into account a market participant's ability to generate economic benefits by using the asset in its highest and best use or by selling it to another market participant that would use the asset in its best use. The Group applies measurement methods that are appropriate in the circumstances and for which there are sufficient data to measure fair value. In doing so, the use of relevant, observable input factors is maximised and that of non-observable input factors is minimised.

All assets and liabilities that are measured at fair value or reported in the notes are assigned to the following levels of the fair value hierarchy based on the lowest input factor that is material overall for measurement:

- Level 1 – (non-adjusted) prices quoted on active markets for identical assets or liabilities
- Level 2 – measurement method in which the lowest input factor that is material overall for measurement can be observed directly or indirectly on the market
- Level 3 – measurement method in which the lowest input factor that is material overall for measurement cannot be observed on the market

For assets and liabilities that are recognised in the financial statements on a recurring basis, the Group determines whether reclassifications between the levels of the hierarchy have occurred by checking the classification at the end of each reporting period.

Currency translation

(26) The consolidated financial statements of IVU AG are prepared in euro, the reporting currency of the Group. Each company within the Group determines its own functional currency. The items included in the financial statements of the respective companies are measured using this functional currency. Foreign currency transactions are initially converted using the spot rate between the functional and the foreign currencies on the day of the transaction. Monetary assets and liabilities in foreign currencies are converted into the functional currency at the closing rate. All exchange differences are recognised in profit or loss for the period.

The functional currency of the foreign operation IVU UK is its national currency (pound sterling). As at the end of the reporting period the assets and liabilities of this subsidiary are translated into the reporting currency of IVU AG (euro) at the closing rate (GBP/EUR = 1.1271; 2016: 1.1674). Income and expenses are translated at the weighted average exchange rate for the financial year (GBP/EUR = 1.1407; 2016: 1.2252).

The functional currency of the foreign operation IVU Chile is its national currency (Chilean peso). As at the end of the reporting period the assets and liabilities of this subsidiary are translated into the reporting currency of IVU AG (euro) at the closing rate (CLP/EUR = 0.0014; 2016: 0.0013). Income and expenses are translated at the weighted average exchange rate for the financial year (CLP/EUR = 0.0014; 2016: 0.0014).

The functional currency of the foreign operation IVU Schweiz is its national currency (Swiss franc). As at the end of the reporting period the assets and liabilities of this subsidiary are translated into the reporting currency of IVU AG (euro) at the closing rate (CHF/EUR = 0.8546;first consolidation: 0.8776). Income and expenses are translated at the weighted average exchange rate for the financial year (CHF/EUR = 0.8995; 2016: not in the company group).

The functional currency of the foreign operation IVU USA is its national currency (US dollars). As at the end of the reporting period the assets and liabilities of this subsidiary are translated into the reporting currency of IVU AG (euro) at the closing rate (USD/EUR = 0.8338; 2016: 0.9490). Income and expenses are translated at the weighted average exchange rate for the financial year (USD/EUR = 0.8852; 2016: 0.9040).

The exchange differences arising from translation of the functional currencies of the foreign operations to the reporting currency of IVU AG are each recognised as a separate component of equity.

Non-current assets

a) Intangible assets

(27) Intangible assets are measured at cost on initial recognition. Intangible assets are recognised if it is likely that the company will derive future economic benefit from them and the cost of the asset can be measured reliably. Following initial recognition, intangible assets are carried at cost less any cumulative amortisation and cumulative impairment losses (reported under depreciation and amortisation). Intangible assets – excluding goodwill – are amortised on a straight-line basis over their estimated useful lives. The amortisation period and the amortisation method are reviewed at the end of each financial year. With the exception of goodwill, the Group has no intangible assets with indefinite useful lives.

Goodwill

(28) Goodwill is initially measured at cost, which is the excess of the total consideration transferred and the amount of the non-controlling interest in the net identifiable assets acquired and the liabilities assumed. If the fair value of the net assets acquired exceeds the total consideration transferred, the difference is recognised in profit or loss. After initial recognition goodwill is measured at cost less cumulative impairment. For the purpose of impairment testing, goodwill acquired in a business combination is, from the acquisition date, allocated to each of the Group's cash-generating units that are expected to benefit from the combination, irrespective of whether other assets or liabilities of the acquiree are assigned to those units. Where goodwill has been allocated to a cash-generating unit and part of the operation within that unit is disposed of, the goodwill associated with the disposed operation is included in the carrying amount of the operation when determining the gain or loss on disposal. Goodwill disposed in these circumstances is measured based on the relative values of the disposed operation and the portion of the cash-generating unit retained.

Industrial rights and licenses, software

(29) Amounts paid for the purchase of industrial rights and licenses are capitalised and then amortised on a straight-line basis over their expected useful life.

(30) The cost of new software is capitalised and treated as an intangible asset if these costs are not an integral part of the related hardware. Software is amortised on a straight-line basis over a period of three or five years, unless it has a shorter useful life.

(31) Costs incurred to restore or preserve the future economic benefits that the company had originally anticipated are expensed as incurred.

Capitalised development costs for internally developed software

(32) Research costs are expensed in the period in which they are incurred. An intangible asset arising from the development of an individual project is recognised only when the IVU Group can demonstrate the technical feasibility of completing the intangible asset so that it is available for internal use or for sale, and the intention to complete the intangible asset and use or sell it. Furthermore, the Group must demonstrate the generation of future economic benefits by the asset, the availability of resources to complete the asset and the ability to reliably determine the expenditure attributable to the intangible asset during its development. Following initial recognition of the development expenditure as an asset, the asset is carried at cost less any cumulative amortisation and cumulative impairment losses. Amounts capitalised in previous years are amortised over the period of expected future revenue from the project (straight-line depreciation over a period of three to five years). The capitalised amount of development costs is reviewed annually for impairment, if the asset is not yet in use, or during the year if there is evidence of impairment.

(33) No development costs were capitalised in the 2017 and 2016 financial years.

b) Property, plant and equipment

(34) Property, plant and equipment is carried at cost less cumulative depreciation and cumulative impairment losses. If property, plant and equipment are sold or scrapped, the corresponding cost and cumulative depreciation are derecognised; any gain or loss from the disposal is reported in the income statement.

(35) The cost of an item of property, plant and equipment comprises its purchase price, including import duties and other incidental purchase taxes in connection the acquisition non-refundable and any directly attributable costs incurred to bring the asset to its location and in a working condition for its intended use. Subsequent costs such as maintenance and repair costs incurred after the assets have been put into operation are expensed in the period in which they are incurred. If it is likely that expenditure will result in the company deriving a future economic benefit above the originally assessed standard of performance from the existing asset, the expenditure is capitalised as an additional cost of items of property, plant and equipment.

(36) Depreciation is calculated on a straight-line basis over the estimated useful life assuming a residual carrying amount of €0. If assets contain several components that have different useful lives, these components are depreciated individually over their respective useful lives. The following estimated useful lives are used for the individual groups:

(37)

Hardware	3 years
Other office equipment	3 to 15 years

(38) Useful lives and depreciation methods for property, plant and equipment are reviewed periodically to ensure that depreciation methods and periods reflect the expected economic benefit of the assets.

c) Impairment of non-current assets

(39) Non-current assets are tested for impairment when facts or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. The first step in impairment testing is calculating the recoverable amount of the asset or cash-generating unit (CGU). This is defined as the higher of the fair value less costs to sell and the value in use. The fair value less costs to sell is defined as the price that can be achieved in the sale of an asset or CGU between two knowledgeable, willing and independent parties less costs to sell. The value in use of an asset or a CGU is determined by the present value under the current use on the basis of expected cash flows. No impairment

of non-current assets was recognised in the 2017 and 2016 financial years.

d) Financial assets

(40) Financial assets are classified into the following categories:

- loans and receivables,
- held-to-maturity investments,
- held-for-trading financial assets and
- available-for-sale financial assets.

As at 31 December 2017 and 31 December 2016, the IVU Group had only receivables.

(41) Loans and receivables are non-derivative financial assets with fixed or determinable payments that are not quoted on an active market. These assets are measured at amortised cost using the effective interest method. Gains and losses are recognised in profit or loss when the loans and receivables are derecognised, become impaired, or for amortisation.

(42) The IVU Group uses the following hierarchy for determining and reporting the fair value of financial instruments by measurement method: Level 1: quoted (unadjusted) prices on active markets for identical assets or liabilities. Level 2: methods in which all input parameters with a significant effect on the recognised fair value are either directly or indirectly observable. Level 3: methods that use input parameters with a significant effect on the recognised fair value that are not based on observable market data.

(43) Financial assets are tested for impairment at the end of each reporting period. For financial assets at amortised cost, if it is likely that the company cannot recover all amounts contractually due for loans, receivable or held-to-maturity investments, an impairment loss, or a write-down on receivables is recognised in profit or loss. The impairment loss is defined as the difference between the carrying amount of the asset and the present value of expected future cash flows using the effective interest method. The carrying amount of the asset is reduced using an allowance account. The impairment loss is recognised in profit or loss. An impairment loss previously recognised in profit or loss is reversed, also in profit or loss, if the subsequent partial recovery can objectively be linked to an event occurring after the original impairment. However, an increase in value is recognised only to the extent that the amortised cost that would have been without impairment is not exceeded. The financial asset is derecognised when it is classified as uncollectible.

(44) As in the previous year, the carrying amounts of financial assets and liabilities are approximately their fair values.

Objective and methods of financial risk management

(45) In addition to trade receivables, the main financial instruments of the company are cash and cash equivalents and liabilities to banks. The aim of these financial instruments is to finance operations. The material risks are from credit and liquidity risks. Exchange rate risks are only insignificant due to the immateriality of foreign currency receivables and liabilities. Fair value risks relate solely to available-for-sale financial assets and are also insignificant.

(46) Credit risks, or the risk that a counterparty does not fulfil its payment obligations, are managed through the use of credit lines and control procedures. The company obtains collateral where appropriate. The Group does not have a significant concentration of credit risk with either a single counterparty or a group of counterparties with similar characteristics. The maximum credit risk is equal to the amount of the reported carrying amounts of financial assets.

(47) Liquidity risk arises from the fact that customers may not be able to fulfil their obligations to the company under the agreed conditions.

(48) Moreover, the IVU Group endeavours to have sufficient cash and cash equivalents or corresponding lines of credit to meet its future obligations.

(49) The maturities of financial liabilities as at 31 December 2017 are as follows:

	Due	Within 1 year	More than 1 year	Total
	€ thou.	€ thou.	€ thou.	€ thou.
Trade payables	30	2,008	0	2,038
Other liabilities	0	10,570	0	10,570
	30	**12,578**	**0**	**12,608**

Given the short-term nature of financial liabilities, as at 31 December 2017 there are no material differences between the carrying amounts shown in the statement of financial position and the undiscounted cash flows.

(50) The maturities of financial liabilities as at 31 December 2016 are as follows:

	Due	Within 1 year	More than 1 year	Total
	€ thou.	€ thou.	€ thou.	€ thou.
Trade payables	0	2,568	0	2,568
Other liabilities	0	7,102	5	7,107
	0	**9,670**	**5**	**9,675**

Given the short-term nature of financial liabilities, as at 31 December 2016 there are no material differences between the carrying amounts shown in the statement of financial position and the undiscounted cash flows.

Current assets

a) Inventories

(51) Inventories are measured at the lower of cost or the expected sales proceeds less costs yet to be incurred.

b) Cash and cash equivalents

(52) Cash and cash equivalents comprise cash, time deposits and demand deposits. Cash and cash equivalents are defined in line with this in the consolidated statement of cash flows.

Equity

(53) Equity comprises the share capital, the capital reserves, retained earnings, cumulative earnings and currency translation adjustments.

(54) Premium payments made in the context of the IPO of IVU AG, less stock-exchange admission fees, are presented in the capital reserves. In the previous year, in preparing the HGB annual financial statements of IVU AG, a withdrawal of €2,866 thousand was made from the capital reserve to offset the residual loss for the year. For the purposes of the consolidated financial statements, an amount of €1,991 thousand was offset against the unappropriated surplus in the previous year, with the result that the capital reserve presented in the consolidated financial statements totals €0 with effect from 31 December 2016.

(55) Actuarial gains and losses from the measurement of pension commitments are reported in retained earnings.

(56) Unrealised gains and losses from currency translation are reported under currency translation adjustments.

Provisions for pensions

(57) The IVU Group has three defined benefit pension plans. Each year, the net pension obligations (pension obligations less plan assets) are measured by recognised, independent actuaries. The cost of the benefits granted is calculated separately for each plan using the projected unit credit method. Remeasurements, comprising of actuarial gains and losses, the effect of the asset ceiling, excluding amounts included in net interest on the net defined benefit liability and the return on plan assets (excluding amounts included in net interest on the net defined benefit liability), are recognised immediately in the statement of financial position with a corresponding debit or credit to retained earnings through OCI in the period in which they occur. Remeasurements are not reclassified to profit or loss in subsequent periods. The amount recognised as an asset or liability from a defined benefit plan includes the present value of the defined benefit obligation less the unrecognised past service cost and the fair value of plan assets for the immediate settlement of obligations. The plan assets consist of cash and cash equivalents and reinsurance. Plan assets are protected from the creditors of the Group. The fair value of the reinsurance policy is based on information about its asset value.

Current liabilities

a) Other provisions

(58) Provisions are recognised only when the company has a present obligation (legal or constructive) as a result of a past event, it is probable that an outflow of resources embodying economic benefits will be required to settle the obligation and a reliable estimate can be made of the amount of the obligation. Provisions are reviewed as at the end of each reporting period and adjusted to the current best estimate. If the effect of the time value of money is material, the amount of the provision is the present value of the expenditure expected to be required to settle the obligation. When discounting is used, the increase in the provision due to the passage of time is recognised as a finance cost.

b) Financial liabilities

(59) Financial liabilities are classified into the following categories:

- held-for-trading financial liabilities and
- other financial liabilities.

The financial liabilities reported in the IVU AG consolidated financial statements were classified as financial liabilities.

(60) A financial liability is carried at cost on initial recognition, which is the fair value of the consideration given; transaction costs are included. Financial liabilities from regular way acquisitions and sales are recognised as at the trade date.

(61) Financial liabilities are no longer reported when they are repaid, i.e. when the contractual obligation is discharged, cancelled, or expires.

Contingent liabilities and contingent assets

(62) Contingent liabilities are not reported in the financial statements. They are disclosed in the notes, unless it is highly unlikely that they will result in an outflow of economic benefits.

(63) Contingent assets are not reported in the financial statements. However, they are disclosed in the notes if the inflow of economic benefits is likely.

Government grants

(64) A government grant is recognised if there is reasonable assurance that the company will comply with the conditions attached to it. Government grants are recognised as income systematically in line with

the expenses that they are intended to compensate. Grants received for the acquisition of property, plant and equipment are recognised in other liabilities as deferred income. The income recognised in connection with grants is reported as other operating income in the income statement.

(65) The investment grants to the company from various bodies are linked to compliance with future conditions. The investment grants received from the tax authorities are subject to compliance with retention guarantees for the subsidised assets. No investment grants or subsidies were recognised as at 31 December 2017.

(66) In 2017, IVU AG recognised funding under various government projects for the development of software applications in the amount of €499 thousand (previous year: €116 thousand). The income is included in other operating income.

Research and development costs

(67) Research and development costs amounted to €2,092 thousand in the 2017 financial year (2016: €1,421 thousand).

Leases

(68) The determination as to whether an agreement is or contains a lease is made on the basis of the economic content of the agreement and requires an assessment of whether the fulfilment of the contractual agreement is dependent on the use of a particular asset or assets, and of whether the agreement grants the right to use the asset.

(69) A lease is classified as an operating lease if all the risks and rewards of ownership substantially remain with the lessor. Lease payments for operating lease are recognised as expenses on a straight-line basis over the term of the lease.

(70) The IVU Group has primarily entered into leasing agreements for motor vehicles. The terms of these operating leases are usually three to four years.

(71) Finance leases in which essentially all risks and opportunities associated with ownership of the leased asset are transferred to the Group result in the capitalisation of the leased asset at the inception of the lease. The leased asset is capitalised at the lower of its fair value or the present value of the minimum lease payments. A leased asset is depreciated over the useful life of the asset. However, if there is no reasonable certainty that the Group will obtain ownership by the end of the lease term, the asset is depreciated over the shorter of the estimated useful life of the asset and the lease term.

(72) In 2017, no new hire-purchase agreements were concluded, There were payments for investments in the amount of €27 thousand (2016: €305 thousand) made under hire purchase contracts. This relates to hardware (workstations, servers and infrastructure) and, until the previous year, software licenses. The term of the finance leases for software is three years and for hardware four years.

Recognition of revenue and income

(73) The IVU Group mainly generates its revenue from project business. In this, it enters into agreements with customers for the development/production of software and its adaptation. Revenue is also generated by the sale of hardware and services, e.g. installation, consulting, training, maintenance and the sale of licenses.

a) Project business

(74) For long-term project agreements that satisfy the conditions for applying the percentage of completion method, revenue from the development and sale of software products is deferred and recognised in accordance with the percentage of completion method based on the percentage of completion of the project.

The percentage of completion is determined by the ratio of costs incurred to the total planned costs. Advances received from customers are offset against equity and progress billings to customers are offset against the corresponding receivable items. Changes in the project conditions can lead to adjustments to the originally recognised costs and revenue for individual projects. The changes are recognised in the period in which these changes are established, which is usually the case when supplementary agreements are concluded between the company and its customers. Furthermore, provisions for expected losses from executory contracts are recognised in the period in which these losses are established and offset against the project's receivables.

b) Sale of licenses

(75) The IVU Group recognises its revenue on the basis of a corresponding contract, once the license has been delivered, the sale price is fixed or determinable, there are no significant liabilities to customers and collection of the receivables is deemed probable.

c) Maintenance, consulting and training

(76) Revenue from maintenance contracts is recognised based on past experience on a straight-line basis over the term of the contract. Income from consulting and training is recognised when the service is rendered.

d) Supply of hardware

(77) Proceeds from the sale of goods (project-related hardware deliveries) are recognised when delivery has taken place and the risks and rewards have been transferred to the buyer. The corresponding revenue is included in paragraph (130) under revenue for goods/services/works contracts.

e) Recognition of interest income

(78) Interest is recognised on a time proportion basis taking into account the effective yield on the asset.

Income taxes

(79) Current tax assets and tax liabilities for both the current period and prior periods are measured at the amount expected in the form of a refund from the tax authorities or to be paid to the tax authorities respectively. The calculation of this amount is based on the tax rates and tax laws in effect at the end of the reporting period or that will shortly be in effect thereafter.

(80) Deferred taxes are recognised using the asset and liability method on all temporary differences between the carrying amounts for assets and liabilities in the statement of financial position and their amounts in the tax base as at the end of the reporting period. Deferred tax liabilities are recognised for all taxable temporary differences with the following exceptions:

- The deferred tax liability from the initial recognition of goodwill or an asset or liability in a transaction that is not a business combination and, at the time of the transaction, affects neither the accounting profit nor taxable profit or loss is not recognised.
- The deferred tax liability is not recognised for taxable temporary differences in connection with investments in subsidiaries, associates or interests in joint ventures if the timing of the reversal of the temporary difference can be controlled and it is probably that the temporary differences will not reverse in the foreseeable future.

(81) Deferred tax assets are recognised for all deductible temporary differences, unutilised tax loss and interest carryforwards and unused tax credits to the extent that it is likely that future taxable income will be generated against which these deductible temporary differences and the unutilised tax loss and

interest carryforwards and unused tax credits can be offset.

(82) The following exceptions apply:

- The deferred tax assets from deductible temporary differences from the initial recognition of an asset or liability in a transaction that is not a business combination and, at the time of the transaction, affects neither the accounting profit nor taxable profit or loss are not recognised.
- Deferred tax assets from taxable temporary differences in connection with investments in subsidiaries, associates or interests in joint ventures are only recognised to the extent that the temporary differences will reverse in the foreseeable future and there will be sufficient taxable profit against which the temporary differences can be used.

The carrying amount of deferred tax assets is assessed at the end of each reporting period and written down to the extent that it is no longer probable that sufficient taxable profit will be available against which the deferred tax asset can be at least partially offset. Unrecognised deferred tax assets are assessed at the end of each reporting period and recognised to the extent that it has become probable that future taxable profit will allow the deferred tax asset to be recovered.

(83) Deferred tax assets and liabilities are measured at the tax rates that are expected to apply in the year when the asset is realised or the liability is settled. The tax rates (and tax laws) which are in effect or that have been announced as at the end of the reporting period apply. Deferred and current taxes relating to items recognised directly in equity are recognised in equity and not in profit or loss.

(84) Deferred tax assets and deferred tax liabilities are offset against each other if the Group has a legally enforceable right to offset current tax assets against current tax liabilities and these income taxes relate to the same taxable entity, which is assessed by the same tax authority.

Sales tax

Revenue, expenses and assets are recognised net of the amount of sales tax, except:

- When the sales tax incurred on a purchase of assets or services is not recoverable from the taxation authority, in which case, the sales tax is recognised as part of the cost of acquisition of the asset or as part of the expense item, as applicable.
- When receivables and payables are stated with the amount of sales tax included.

The net amount of sales tax recoverable from, or payable to, the taxation authority is included as part of receivables or payables in the consolidated statement of financial position.

Segment reporting

a) Segments

(85) For the purposes of management the IVU Group is divided into two main segments:

- Public Transport
- Logistics

(86) The divisions are the basis on which the IVU Group presents its segment information. The financial information on the business segments and geographical segments are presented in note F. and in a separate annex to these notes.

b) Transactions between segments

(87) Segment income, segment expenses and segment results contain only negligible transfers between segments. Such transfers are accounted for at general market prices that are charged to unaffiliated custom-

ers for similar services. These transfers were eliminated in consolidation.

C. NOTES TO THE CONSOLIDATED STATEMENT OF FINANCIAL POSITION

NON-CURRENT ASSETS

Intangible assets and property, plant and equipment

(88) Please see the attached development in intangible assets and property, plant and equipment for details of changes in non-current assets in the financial year ended 31 December 2017.

(89) On 31 December 2017 and 31 December 2016, the IVU Group carried out impairment tests in line with the concept of value in use with respect to goodwill . The impairment test is based on the following cash-generating units with their carrying amounts for goodwill:

Cash-generating unit	31 Dec 2016	31 Dec 2015
	€ thousand	€ thousand
Public Transport	8,980	8,980
Logistics	2,369	2,369
	11,349	11,349

(90) The impairment test is based on the cash flow forecast for the individual cash-generating units over a period of five years. Beyond the planning horizon, further cash flows were included assuming growth of 1.0% (2016: 1.0%). Furthermore, for the detailed planning period the management is planning growth in gross profit of approximately 1%. The cash flows shown were derived from past information and contractually agreed orders for the 2017 financial year. The assumptions by management regarding business development trends in the software industry are consistent with the expectations of industry experts and market observers. The software sector is expected to experience somewhat moderate growth rates. Discount rates of 7.68% after taxes and 7.06% before taxes (previous year: 5.94% after taxes and 7.06% before taxes) were applied. The adjustment of interest rates reflects current economic conditions (real economy developments and financing conditions). As there is significant uncertainty regarding projected cash flows and financing terms in the light of the existing economic conditions, the Executive Board of the IVU Group conducted the impairment test on the basis of a worst-case scenario of 10% lower cash flows combined with a discount rate of 8.5% after taxes. This also did not give rise to impairment requirements.

(91) In the reporting year IVU AG did not enter into finance leases for hardware and software. The leases from previous years have a term of four years. The carrying amount of the assets that are the subject of finance leases is €3 thousand (2016: €30 thousand) as at the end of the reporting period.

CURRENT ASSETS

Inventories

(92) Inventories are composed of merchandise and advance payments as follows:

	31 Dec 2017	31 Dec 2016
	€ thousand	€ thousand
Merchandise	331	1,183
Advance payments	1,353	894
	1,684	2,077

There was impairment of €600 thousand (2016: €367 thousand) on merchandise in the year under review.

Trade receivables

(93) Trade receivables include value adjustments as follows:

	31 Dec 2017	31 Dec 2016
	€ thousand	€ thousand
Trade receivables	27,342	15,229
Specific valuation allowances	-486	-170
	26,856	**15,059**

(94) Trade receivables do not bear interest and mature in between 0 and 90 days. The specific valuation allowances recognised developed as follows:

	2017	2016
	€ thou.	€ thou.
As at 1 January	170	2,141
Charge for the year	347	165
Utilised	-31	-2,114
Unused amounts reversed	0	-22
AS AT 31 DECEMBER	**486**	**170**

(95) In the financial year, trade receivables were derecognised due to being uncollectible. Accordingly, the specific valuation allowances made for these trade receivables in previous years have been utilised to the same extent.

(96) The maturity structure of trade receivables was as follows as at 31 December:

	31 Dec 2017	31 Dec 2016
	€ thousand	€ thousand
Neither past due nor impaired	20,903	9,195
Past due, not impaired		
< 30 days	3,529	3,495
31 to 60 days	281	1,020
61 to 90 days	856	153
> 90 days*	1,287	1,196
	5,953	**5,864**
AS AT 31 DECEMBER	**26,856**	**15,059**
Of which current receivables	26,603	14,291
Of which non-current receivables	253	768

* Of which paid by 28 February 2018: €206 thousand (previous year: €715 thousand)

CURRENT RECEIVABLES/LIABILITIES FROM CONSTRUCTION CONTRACTS

(97) Percentage-of-completion method receivables arise when revenue was recognised but cannot yet be invoiced under the contractual terms. These amounts are usually calculated by the ratio of costs incurred to the total planned costs (cost-to-cost method). This item includes directly allocable costs (staff costs and third-party services) and an appropriate portion of overheads.

(98) The construction contracts valued in accordance with the percentage of completion method but not yet completed as at the balance sheet date are reported as follows:

	31 Dec 2017	31 Dec 2016
	€ thousand	€ thousand
Costs incurred plus earnings from non-invoiced projects	17,057	35,984
Less offsettable advances received	-7,998	-20,850
Current receivables from construction contracts	9,059	15,135
Obligations from construction contracts	5,436	4,850
Future receivables from construction contracts	3,623	10,285

Liabilities from construction contracts include advance payments received in excess of the corresponding receivables.

(99) There are normal warranty obligations for goods accepted under construction contracts.

Other current assets

(100) Other current assets essentially consist of demand deposits, which are to secure guarantees and are not freely available.

	31 Dec 2017	31 Dec 2016
	€ thousand	€ thousand
Demand deposits to secure guarantees	4,438	2,686
Receivables from tax credit	692	352
Prepaid expenses	209	53
Receivables from government grants	98	0
Other	179	264
	5,616	**3,355**

Cash and cash equivalents

(101) Cash and cash equivalents nearly exclusively consist of bank balances.

	31 Dec 2017	31 Dec 2016
	€ thousand	€ thousand
Bank balances	11,518	8,611
Cash balances	3	3
	11,521	**8,614**

Equity

(102) Please see the statement of changes in consolidated equity for details.

(103) The fully paid-in share capital entered in the commercial register as at the end of the reporting period amounts to €17,719,160.00 (2016: €17,719,160.00) and consists of 17,719,160 (2016: 17,719,160) no-par value shares.

(104) By way of resolution of the Annual General Meeting on 25 May 2016, the Executive Board was authorised, with the approval of the Supervisory Board, to increase the company's share capital on one or several occasions by up to 30% of the current share capital of €17,719,160, i.e. by €5,315,748, by issuing new no-par value bearer shares against cash or non-cash contributions by 24 May 2021. The Executive Board can make use of this authorisation for any legally permissible purpose. In 2016 and 2017, the Executive Board did not make use of this authorisation.

Furthermore, by way of resolution of the Annual General Meeting on 25 May 2016, the Executive Board was authorised to acquire shares in the company for any purpose permitted under Section 71 (1) No. 8 of the German Stock Corporation Act (AktG) in the context of the statutory restrictions and in line with the following provisions. The authorisation is restricted to the acquisition of shares with a proportional amount of the share capital of €1,771,916, i.e. 10% of the share capital of €17,719,160.

NON-CURRENT LIABILITIES

Pension provisions

(105) Pension provisions are recognised for benefit obligations (pension, invalidity, widows' and orphans' pensions) and for current payments to eligible active and former employees of IVU AG and their surviving dependents.

(106) The amount of the pension obligation (defined benefit obligation) was calculated using actuarial methods on the basis of the following assumptions:

	2017	2016
	%	%
Discount rate	1.93	1.81
Salary trend	2.50	2.50
Pension trend	2.00	2.00
Turnover	3.00	3.00

(107) The salary trend includes expected future salary increases, which are estimated annually depending on inflation and the period of service with the company.

The net pension expenses are as follows:

	2017	2016
	€ thou.	€ thou.
Service cost	11	10
Interest expense	89	105
EXPENSE FOR THE PERIOD	**100**	**115**

(108) The following table shows the composition of pension obligations:

	2017	2016
	€ thou.	€ thou.
Present value of pension obligations, 31 Dec	5,280	5,529
Less fair value of plan assets	505	656
PROVISIONS FOR PENSIONS	**4,775**	**4,873**

(109) The following table shows the development of pension obligations:

	2017	2016
	€ thou.	€ thou.
Present value of pension obligations, 1 Jan	5,529	5,355
Service cost	11	10
Interest expense	99	121
Pension payments	-219	-220
Actuarial gains and losses from changes in financial assumptions recognised in equity (other income)	-79	336
Actuarial gains and losses from experience adjustments recognised in equity (other income)	-61	-73
PRESENT VALUE OF PENSION OBLIGATIONS, 31 DEC	**5,280**	**5,529**

(110) The following table shows the development of plan assets:

	2017	2016
	€ thou.	€ thou.
Fair value of plan assets, 1 Jan	656	798
Net return on plan assets	10	15
Additions to plan assets	-151	10
Payments from plan assets	-152	-151
Actuarial gains and losses recognised in equity (other income)	142	-16
PLAN ASSETS, 31 DEC	**505**	**656**

(111) A quantitative sensitivity analysis of the main assumptions as at 31 December 2017 is presented below.

Assumption	Interest sensitivity		Pension trend sensitivity
Scenario	Increase by 0.50%	Decrease by 0.50%	Increase by 1.00%
Effect on defined benefit obligation (in € thousand)	-313	345	665

The above sensitivity analysis was performed using a method that extrapolates the effect of realistic changes in the key assumptions as at the end of the reporting period on the defined benefit obligation.

(112) The average term of defined benefit obligations as at the end of the reporting period is 12.47 years (2016: 13.01 years).

(113) The expected return on plan assets is based on an discount factor of 1.93% (2016: 1.81%). No contributions will be paid into the plan in the next twelve months.

(114) The plan assets are composed exclusively of cash and cash equivalents.

(115) The anticipated payment structure for the years 2018 to 2022 is shown below:

	€ thou.
Pension payments made	
2016	220
2017	219
Expected pension payments	
2018	239
2019	258
2020	260
2021	264
2022	269

(116) Defined contribution plans exist only in the form of the mandatory contributions by IVU AG to the state pension. Employer contributions of €1,960 thousand (2016: €1,829 thousand) were paid in the reporting year.

CURRENT LIABILITIES

Financial liabilities

(117) IVU has the following credit facilities:

	Utilisation 31 Dec 2017	Utilisation 31 Dec 2016	Credit facility
	€ thou.	€ thou.	€ thou.
Berliner Sparkasse	0	0	1,500
Deutsche Bank AG	0	0	1,500
Monte del Paschi di Siena	0	0	150

(118) As in the previous year, the revocable credit facilities with Deutsche Bank AG and Berliner Sparkasse of €1,500 thousand each are secured by the general assignment of trade receivables and the allocation of licences. Credit facilities were not used as at the end of the period.

(119) Expenses for interest and commission amounted to €178 thousand (2016: €172 thousand) in the 2017 financial year.

Provisions

(120) Provisions developed as follows:

	As at 1 Jan 2017	Utilised	Unused amounts reversed	Arising during the year	As at 31 Dec 2017
	€ thou.	€ thou.	€ thou.	€ thou.	€ thou.
Warranty	530	254	105	1,110	1,281
	530	**254**	**105**	**1,110**	**1,281**
of which current	530				1,281

(121) Warranty provisions relate to warranty risks from completed projects. The provisions do not include interest.

Other current liabilities

(122) Other current liabilities are composed as follows:

	31 Dec 2017	31 Dec 2016
	€ thousand	€ thousand
Staff-related liabilities	4,995	3,254
Liabilities from contract risks	63	296
Tax liabilities (sales tax, wage tax)	2,952	1,739
Social security liabilities	0	4
Liabilities from outstanding invoices	1,659	1,026
Other	901	783
	10,570	**7,102**

(123) The staff-related liabilities essentially include holiday entitlements, overtime obligations and special payments.

Deferred taxes/income taxes

(124) German trade income tax is levied on the trade income derived from income subject to corporation tax. The effective trade tax rate depends on the municipality in which the IVU Group operates. The average trade tax rate for 2017 was 15.1% (2016: 15.0%). The corporation tax rate for the 2016 and 2017 financial years is 15%. In addition to corporation tax, there is a solidarity surcharge of 5.5% on the assessed corporation tax. Thus, the effective tax rate for the calculation of current income taxes for the 2017 financial year is 30.9% (2016: 30.8%).

(125) Income tax expense for the current financial year breaks down as follows:

	2017	2016
	€ thou.	€ thou.
Current tax expenses		
Current year	-848	-131
Deferred tax income/expense		
Change in tax loss carryforwards	-477	1,172
Software	-42	-36
Goodwill amortisation affecting tax	-5	-132
Change in long-term construction contracts	1,051	-1,223
Liabilities from construction contracts		
IVU Italy	-586	-1,059
Change in pension provisions	-133	-21
Change in other assets	43	0
Change in other provisions	18	-1
	-131	**-1,300**
INCOME TAX EXPENSE	**-979**	**-1,431**

(126) The following table shows the reconciliation of income tax expense:

	2017 € thou.	2016 € thou.
Earnings before taxes	5,955	1,224
Tax rate	30.90%	30.82%
Notional income tax expense	-1,840	-377
Tax deviation in treatment of certain expenses	-36	-58
Foreign withholding taxes	0	-8
New not capitalized German tax loss carryforwards	0	-1,441
Utilisation of tax loss carryforwards	1,349	0
Remeasurement of German tax loss carryforwards	-487	584
Effects of tax rate differences	19	-155
Tax expense from prior periods	13	11
Other	3	13
CURRENT TAX EXPENSES	**-979**	**-1,431**

(127) The deferred taxes reported in IVU's consolidated statement of financial position break down as follows:

	31 Dec 2017 € thou.	Delta 2017 € thou.	31 Dec 2016 € thou.
Deferred tax assets			
Liabilities from contract manufacturing IVU Italy	0	-586	586
Receivables IVU Italy	43	43	0
Software	43	-42	85
Pension provisions	586	-220	806
Other provisions	84	18	66
Tax losses carried forward	3,988	-477	4,465
	4,744	**-1,264**	**6,008**
Deferred tax liabilities			
Tax-effective goodwill amortisation	-1,737	-5	-1,732
Receivables from long-term contract manufac-turing	-2,205	1,051	-3,256
	-3,942	**1,046**	**-4,988**
DEFERRED TAX ASSETS/ LIABILITIES, NET	**802**	**-218**	**1,020**
- of which affecting the income situation		-131	
- of which equity changes		-87	
Carrying amount			
Deferred tax assets	802	-218	1,020
Deferred tax liabilities	0	0	0

(128) The IVU Group has the following tax loss carryforwards:

	31 Dec 2017 € million	31 Dec 2016 € million
Loss carryforward for German trade tax	33.8	36.6
Loss carryforward for German corporation tax	38.4	41.2

There are no foreign loss carryforwards. The German loss carryforwards do not expire.

D. NOTES TO THE CONSOLIDATED INCOME STATEMENT

(129) The income statement has been prepared in accordance with the total cost format.

Revenue

(130) Revenue is distributed to the various revenue types as follows:

	2017 € thou.	2016 € thou.
Goods/services/works contracts	36,137	34,926
Licences	14,171	7,066
Maintenance	20,757	17,766
	71,065	**59,758**

The position „goods/services/work contracts" include returns from licenses as part of consistent work contracts.

Other operating income

(131) Other operating income is composed as follows:

	2017 € thou.	2016 € thou.
Income from the reversal of impairment losses	0	22
Government grants	499	116
Exchange rate gains	314	93
Other	85	195
	898	**426**

Cost of materials

(132) Cost of materials is distributed to purchased goods and purchased services as follows:

	2017 € thou.	2016 € thou.
Cost of purchased goods	16,132	10,240
Cost of purchased services	8,113	7,105
	24,245	**17,345**

Staff costs

(133) Staff costs distribute as follows:

	2017 € thou.	2016 € thou.
Wages and salaries	26,381	24,206
Social security, post-employment and other employee benefit costs	4,843	4,408
	31,224	**28,614**

Depreciation and amortisation on assets

(134) Depreciation and amortisation on non-current assets break down into the following parts:

	2017	2016
	€ thou.	€ thou.
On intangible assets	348	611
On property, plant and equipment	894	902
	1,242	1,513

Other operating expenses

(135) Other operating expenses can be distributed as follows:

	2017	2016
	€ thou.	€ thou.
Selling expenses	2,775	3,069
Operating expenses	2,715	2,081
Administrative expenses	1,978	2,000
Other	1,653	4,168
	9,120	11,318

The position "Other" contains value adjustments on receivables from construction contracts amounting to €2,187 thousand and third-party services for the subsidiary IVU Israel amounting to €316 thousand in the previous year.

Earnings per share

(136) Under IAS 33, the calculation of basic earnings per share is determined by dividing the consolidated net income by the weighted number of shares.

	2017	2016
Net profit / loss for the period (€ thousand)	4,970	-207
Number of ordinary shares as at 1 Jan (thousands)	17,719	17,719
Number of ordinary shares as at 31 Dec (thousands)	17,719	17,719
Number of weighted shares (thousands)	17,719	17,719
BASIC EARNINGS PER SHARE (EUR/SHARE)	**0.28**	**-0.01**

(137) Diluted earnings per share are calculated by adjusting the profit attributable to ordinary shareholders and the weighted average number of shares outstanding for the effects of all the dilutive potential ordinary shares arising on the exercise of share subscription rights. For this purpose, the number of ordinary shares to be included is equal to the weighted average number of ordinary shares plus the weighted average number of ordinary shares that would be issued as a result of the conversion of all the dilutive potential ordinary shares into ordinary shares. The conversion of stock options into ordinary shares is considered effective on the date on which the options were granted. There was no dilutive effect from stock options issued as at 31 December 2017 and 2016.

E. NOTES TO THE STATEMENT OF CASH FLOWS

(138) The reported cash and cash equivalents are not subject to any restriction by a third party. Interest and income tax payments are reported. There was no dividend distributed. The composition of cash and cash equivalents is shown in paragraph (101).

F. NOTES TO SEGMENT REPORTING

(139) The IVU Group applies IFRS 8 Operating Segments. This standard requires the disclosure of information on the Group's operating segments. The IVU Group is divided into two segments, Public Transport and Logistics.

(140) Reporting by business segment is attached as a separate annex.

Public Transport

(141) This segment develops software solutions for the customer groups of transport operations (buses, trains, ferries) and purchasers (associations, states,

municipalities) with the aim of supporting and optimising the planning and operation of transport services with intelligent IT systems. In the financial year the company generated revenue of €7.9 million and €6.5 million respectively (12.0% and 9.9% respectively of segment revenue) with two customers in the Public Transport segment.

Logistics

(142) Our modern software suite IVU.elect offers the adequate solution to prepare, organise, conduct and evaluate elections. With IVU.locate we offer our customer groups Deutsche Post, retail chains and other public administrations a map based software solution for the analysis and presentation of geodata. In the financial year, the company made revenues of €646 thousand and €536 thousand respectively with two customers of the Logistics segment (11.8% and 9.7% respectively of segment revenues).

Reconciliation of segment assets

(143) Segment assets are reconciled to gross assets as follows:

	31 Dec 2017	31 Dec 2016
	€ thousand	€ thousand
Gross assets as per statement of financial position	68,823	58,800
- Deferred tax assets	-802	-1,020
SEGMENT ASSETS	**68,021**	**57,780**

G. OTHER DISCLOSURES

COMMITMENTS AND CONTINGENCIES

Rental and lease agreements

(144) Vehicles, office equipment and other equipment are rented under operating leases. In 2017 €265 thousand (2016: €373 thousand) was incurred in lease and maintenance fees.

(145) Under finance leases, lease fees of €27 thousand (2016: €123 thousand) were incurred for hardware and €0 thousand (2016: €5 thousand) for office equipment in 2017. Finance lease liabilities are included under trade payables.

(146) As at the end of the reporting period the finance lease liabilities had the following present values and remaining terms:

Remaining term	Up to 1 year	1 to 5 years	Total
	€ thou.	€ thou.	€ thou.
Liability	3	0	3
Finance charges	0	0	0
PRESENT VALUE	**3**	**0**	**3**

(147) The finance lease liabilities had the following present values and remaining terms as at 31 December 2016:

Remaining term	Up to 1 year	1 to 5 years	Total
	€ thou.	€ thou.	€ thou.
Liability	24	6	30
Finance charges	1	0	1
PRESENT VALUE	**25**	**6**	**31**

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

(148) The following rental and lease payments result from rental and lease agreements:

	31 Dec 2017 € thousand	31 Dec 2016 € thousand
Remaining term up to one year		
Rent payments	1,262	1,199
Lease payments	137	178
Subtotal	**1,399**	**1,377**
Remaining term of between one and five years		
Rent payments	4,013	1,489
Lease payments	188	160
Subtotal	**4,201**	**1,649**
TOTAL	**5,600**	**3,026**

The lease payments include payments under a hire purchase of €3 thousand (remaining term of less than one year) and € 0 thousand (remaining term of between one and five years).

Letters of credit

(149) As at the end of the reporting period, letters of credit of €17,056 thousand, €911 thousand of which in foreign currency (2016: €12,989 thousand, €676 thousand of which in foreign currency) were assumed by various banks for IVU AG.

EMPLOYEES

(150) The average number of employees of the IVU Group was 505 in the financial year (2016: 476). The breakdown of employees by function is as follows:

	2017	2016
Production/software development	244	254
Administration	202	174
Project work/sales	58	48
TOTAL	**504**	**476**

AUDITING AND CONSULTANCY FEES

(151) The auditor's fees recognised as expenses in the financial year amount to €108 thousand. The breakdown of expenses for other services performed by the auditor is as follows:

	€ thou.
Tax advisory services	24
Tax compliance foreign countries	11
Advice relating to secondments	8
Other services	27

(152) The non-audit services performed by the auditor solely relate to compliance activities, i.e. preparation of tax declarations and documentation.

RELATED PARTY DISCLOSURES

(153) Related parties are those with the ability to control the IVU Group or significantly influence its financial and operating policies. In addition to control, the existence of trust relationships was also taken into account in determining the significant influence of related parties on the financial and operating policies of the IVU Group.

Related companies

(154) The affiliated companies included in the consolidated financial statements are considered related parties. There are no other related parties.

(155) Transactions between IVU AG and its subsidiaries consisted of the reallocation of license revenue, development services and allocations for services rendered that were eliminated in consolidation.

Related persons

(156) The following persons are considered related parties:

– Executive Board members of IVU AG

- Martin Müller-Elschner (CEO)
- Matthias Rust (member of the Executive Board)
- Leon Struijk (member of the Executive Board since 1 February 2018)

– The members of the Supervisory Board were:

- Prof Herbert Sonntag, Berlin (Chairman)
  - Professor for Transport Logistics and Head of the Transport Logistics Research Group at the Technical University of Applied Sciences, Wildau,
  - Honorary Member LNBB Logistiknetz Berlin-Brandenburg e.V.,
  - Visiting Professor at German-Kazakh University, Almaty Kazakhstan,
  - Visiting Professor at Georgian Technical University, Tbilisi Georgia.

- André Neiss, Hanover
  - CEO of üstra Hannoversche Verkehrsbetriebe AG, Hanover (until December 2017),
  - Managing Director of Versorgungs- und Verkehrsgesellschaft Hannover mbH, Hanover (until December 2017),
  - Member of the Advisory Board of Hannover Region Grundstücksgesellschaft mbH HRG & Co. Passerelle KG, Hanover (until December 2017),
  - Chairman of Haftpflichtgemeinschaft Deutscher Nahverkehrs- und Versorgungsunternehmen (HDN), Bochum (until December 2017),
  - Vice Chairman of the association committee of Großraum-Verkehr Hannover GmbH (GVH), Hannover (until December 2017),
  - Member of the Management Board of VDV-Akademie e.V., Cologne (until December 2017),
  - Member of the Advisory Board of VDV-Akademie GmbH, Cologne (until December 2017).

- Ulrike Mayer-Johanssen, Berlin
  - Founder and Non-Executive Chairwoman of MetaDesign AG, Berlin,
  - Director of Uli Mayer-Johanssen GmbH, Berlin,
  - External economics expert on the Supervisory Board of University Hospital Düsseldorf, Düsseldorf,
  - Honorary Senator and Member of the University Board at the Schwäbisch Gmünd University of Design, Schwäbisch Gmünd,
  - Member of the German Designer Club, Frankfurt/Main,
  - Member of the Board of Trustees of the Stiftung Berlinische Galerie, Berlin,
  - Member of the Board of Trustees of Deutsche Stiftung Denkmalschutz, Bonn,
  - Member of the Advisory Council of Werteakademie Gut Gödelitz, Mochau,
  - Member of the Advisory Council of Wertekommission, Bonn.

Related party transactions

(157) There were no other business transactions between related parties and companies of the IVU Group in the reporting year or the previous year.

(158) In the financial year 2017, Martin Müller-Elschner, CEO, acquired 25,000 IVU shares on the market.

(159) In the financial year 2016, Martin Müller-Elschner, CEO, acquired 22,800 IVU shares on the market.

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

REMUNERATION OF THE EXECUTIVE BOARD AND THE SUPERVISORY BOARD

(160) The Executive Board of IVU AG received remuneration of €850 thousand (2016: €707 thousand) in the 2017 financial year. The remuneration of the Executive Board comprises a fixed (€488 thousand) and a variable portion (€362 thousand). The variable portion amounted to 43% (2016: 25%) of total remuneration in the year under review. On 25 May 2016 the Annual General Meeting resolved to exempt the company from the duty to disclose the remuneration of individual members of the Executive Board for the financial years 2016 until 2020, inclusive.

(161) Pension provisions of €2,634 thousand (2016: €2,784 thousand) were reported for former members of the Executive Board. Furthermore, pension payments of €151 thousand (2016: €151 thousand) were made for former members of the Executive Board.

(162) The Supervisory Board received remuneration of €45 thousand (2016: €45 thousand) in 2017.

(163) The shareholdings of the members of the Executive Board and the Supervisory Board are as follows:

	31 Dec 2017	31 Dec 2016
	Shares	Shares
Executive Board		
Martin Müller-Elschner (Chairman)	225,000	200,000
Matthias Rust	6,800	6,800
Supervisory Board		
Prof Herbert Sonntag	866,000	866,000

SUPPLEMENTARY REPORT

(164) Since 31 December 2017, apart from the appointment of Leon Struijk to the Executive Board with effect from 1 February 2018 there have been no events of particular significance that have affected the situation regarding earnings, finances and assets.

DISCLOSURES ON THE GERMAN CORPORATE GOVERNANCE CODE

(165) The 2018 declaration of compliance was issued by the Executive Board and the Supervisory Board on 15 February 2018 and can be accessed by shareholders at all times on the IVU AG homepage (www.ivu.com) under Investor Relations.

Berlin, 21 March 2018

Martin Müller-Elschner

Matthias Rust

Leon Struijk

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS SEGMENT REPORTING

CONSOLIDATED SEGMENT REPORTING
FOR THE 2015 FINANCIAL YEAR (IFRS)

Business segments	Public Transport		Logistics		Central services		**Consolidated**	
€ thousand	**2017**	**2016**	**2017**	**2016**	**2017**	**2016**	**2017**	**2016**
Total revenue	66,506	54,368	5,564	5,791	116	345	72,186	60,504
Revenue from transactions with other segments	-1,052	-365	-69	-117	0	-264	-1,121	-746
Revenue from external customers	**65,454**	**54,003**	**5,495**	**5,674**	**116**	**81**	**71,065**	**59,758**
Segment result (gross profit)	**42,357**	**37,732**	**5,141**	**4,993**	**220**	**114**	**47,718**	**42,839**
Expenses*	-31,227	-31,027	-3,573	-3,593	-6,786	-6,825	-41,586	-41,445
EBIT	**11,130**	**6,705**	**1,568**	**1,400**	**-6,566**	**-6,711**	**6,132**	**1,394**
Financial expenses, net					-177	-170	-177	-170
EBT							**5,955**	**1,224**
Income taxes					-979	-1,431	-979	-1,431
CONSOLIDATED NET LOSS/PROFIT							**4,976**	**-207**
Notes							(139)–(143)	(139)–(143)
Segment assets	**58,581**	**49,199**	**4,918**	**5,194**	**4,522**	**3,387**	**68,021**	**57,780**
Investment expenditure	810	941	91	137	117	127	1,018	1,205
Impairments	988	1,182	111	175	143	156	1,242	1,513

Geographic segments	Germany		Europe		Others		**Consolidated**	
€ thousand	**2017**	**2016**	**2017**	**2016**	**2017**	**2016**	**2017**	**2016**
Revenue from external customers	33,750	34,352	31,435	22,036	5,880	3,370	71,065	59,758
Segment assets	63,084	51,300	4,862	6,396	75	84	68,054	57,780
Investment expenditure	939	1,181	79	24	0	0	1,018	1,205
Impairments	1,104	1,363	138	150	0	0	1,242	1,513

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS NON-CURRENT ASSETS

DEVELOPMENT IN INTANGIBLE ASSETS AND PROPERTY, PLANT AND EQUIPMENT 2017 (IFRS)

	Cost				
	As at 1 Jan 2017	Addition	Reclassification	Disposal	As at 31 Dec 2017
	€ thousand	€ thousand	€ thousand	€ thousand	€ thousand
I. Intangible assets					
1. Industrial rights and licenses, software	7,047	292*	314	0	7,653
2. Goodwill	14,626	0	0	0	14,626
3. Primary intangible assets	15,505	0	0	0	15,505
	37,178	**292**	**314**	**0**	**37,784**
II. Property, plant and equipment					
1. Technical equipment and machinery	993	0	0	482	511
2. Other equipment, operating and office equipment	9,040	700**	0	1,225	8,515
3. Advance payments and assets under construction	317	0	-314	0	3
	10,350	**700**	**-314**	**1,707**	**9,029**
	47,528	**992**	**0**	**1,707**	**46,813**

* The additions include €18 tousand from the acquisition of IVU Traffic Technologies Schweiz AG
** The additions include €7 thousand from the acquisition of IVU Traffic Technologies Schweiz AG

DEVELOPMENT IN INTANGIBLE ASSETS AND PROPERTY, PLANT AND EQUIPMENT 2016 (IFRS)

	Cost				
	As at 1 Jan 2016	Addition	Reclassification	Disposal	As at 31 Dec 2016
	€ thousand	€ thousand	€ thousand	€ thousand	€ thousand
I. Intangible assets					
1. Industrial rights and licenses, software	7,616	211	0	780	7,047
2. Goodwill	14,626	0	0	0	14,626
3. Primary intangible assets	15,505	0	0	0	15,505
	37,747	**211**	**0**	**780**	**37,178**
II. Property, plant and equipment					
1. Technical equipment and machinery	1,008	0	0	15	993
2. Other equipment, operating and office equipment	8,502	677	0	139	9,040
3. Advance payments and assets under construction	18	317	0	18	317
	9,528	**994**	**0**	**172**	**10,350**
	47,275	**1,205**	**0**	**952**	**47,528**

Depreciation and amortisation				Residual carrying amounts	
As at 1 Jan 2017	**Addition**	**Disposal**	**As at 31 Dec 2017**	**As at 31 Dec 2017**	**As at 31 Dec 2016**
€ thousand	€ thousand	€ thousand	€ thousand	€ thousand	€ thousand
6,626	348	0	6,974	679	421
3,277	0	0	3,277	11,349	11,349
15,505	0	0	15,505	0	0
25,408	**348**	**0**	**25,756**	**12,028**	**11,770**
813	55	477	391	120	180
7,767	839	1,225	7,381	1,134	1,273
0	0	0	0	3	317
8,580	**894**	**1,702**	**7,772**	**1,257**	**1,770**
33,988	**1,242**	**1,702**	**33,528**	**13,285**	**13,540**

Depreciation and amortisation				Residual carrying amounts	
As at 1 Jan 2016	**Addition**	**Disposal**	**As at 31 Dec 2016**	**As at 31 Dec 2016**	**As at 31 Dec 2015**
€ thousand	€ thousand	€ thousand	€ thousand	€ thousand	€ thousand
6,795	611	780	6,626	421	821
3,277	0	0	3,277	11,349	11,349
15,505	0	0	15,505	0	0
25,577	**611**	**780**	**25,408**	**11,770**	**12,170**
770	55	12	813	180	238
7,077	829	139	7,767	1,273	1,425
0	18	18	0	317	18
7,847	**902**	**169**	**8,580**	**1,770**	**1,681**
33,424	**1,513**	**949**	**33,988**	**13,540**	**13,851**

AUDITOR'S REPORT

INDEPENDENT AUDITOR'S REPORT

To IVU Traffic Technologies AG

Report on the audit of the consolidated financial statements and the Group management report

Audit opinions

We have audited the consolidated financial statements of IVU Traffic Technologies AG, Berlin, and its subsidiaries (the Group) – consisting of the consolidated statement of financial position as at 31 December 2017, the consolidated income statement, the consolidated statement of comprehensive income, the consolidated statement of changes in equity and the consolidated statement of cash flows for the period from 1 January to 31 December 2017, in addition to the notes to the consolidated financial statements, including a summary of the key accounting policies. We also audited the Group management report of IVU Traffic Technologies AG for the financial year from 1 January to 31 December 2017. In accordance with German statutory provisions, we did not audit the content of the responsibility statement in accordance with section 297(2) sentence 4 HGB and section 315(1) sentence 5 HGB under "Additional information in accordance with section 315(1) sentence 5 HGB, section 315a(1) and (2) HGB and section 315(4) HGB" in the Group management report or the Group's corporate governance declaration in accordance with section 315d HGB under "Corporate governance declaration in accordance with section 315d HGB" in the Group management report.

In our opinion, based on the findings of our audit:

- the attached consolidated financial statements, in all material respects, comply with the IFRSs as adopted by the EU and the additional requirements of German commercial law in accordance with section 315e(1) HGB, and give a true and fair view of the net assets and financial position of the Group in accordance with these requirements as at 31 December 2017 and its results of operations for the financial year from 1 January to 31 December 2017; and
- as a whole, the attached Group management report provides a suitable view of the Group's position. In all material respects, this Group management report is consistent with the consolidated financial statements and with German legal requirements, and accurately presents the risks and opportunities of future development. Our audit opinion on the Group management report does not extend to the responsibility statement in accordance with section 297(2) sentence 4 HGB and section 315(1) sentence 5 HGB under "Additional information in accordance with section 315(1) sentence 5 HGB, section 315a(1) and (2) HGB and section 315(4) HGB" in the Group management report or the Group's corporate governance declaration in accordance with section 315d HGB under "Corporate governance declaration in accordance with section 315d HGB" in the Group management report.

In accordance with section 322(3) sentence 1 HGB, we declare that our audit has not led to any objections to the regularity of the consolidated financial statements or the Group management report.

Basis for audit opinions

We conducted our audit in accordance with section 317 of the Handelsgesetzbuch (HGB – German Commercial Code), the EU Audit Regulation (No. 537/2014) and German generally accepted standards for the audit of financial statements promulgated by the Institut der Wirtschaftsprüfer (IDW – German Institute of Public Auditors). Our responsibility under these provisions and policies is described further in the section of our audit report entitled "Auditor's responsibility for the audit of the consolidated financial statements and the Group management report". We are independent from the Group companies in accordance with the commercial and professional regulations of European

and German law and have fulfilled our other German professional obligations in accordance with these requirements. Furthermore, in accordance with Article 10(2)(f) of the EU Audit Regulation, we declare that we have not performed any prohibited non-audit services as defined by Article 5(1) of the EU Audit Regulation. We believe that the audit evidence we have obtained is sufficient and appropriate to serve as a basis for our audit opinions on the consolidated financial statements and the Group management report.

Key issues in the audit of the consolidated financial statements

Key issues pertaining to the audit are those that, based on our professional judgement, were most significant in our audit of the consolidated financial statements for the financial year 1 January to 31 December 2017. These issues were taken into account in the context of our audit of the consolidated financial statements as a whole and in the formation of our audit opinion; we have not issued a separate opinion on these issues.

The audit issues that we consider to be key are described below:

1. Measurement of long-term construction contracts with customers

Reasons for identification as a key audit issue

As at 31 December 2017, receivables from long-term construction contracts from work in progress not yet invoiced and advance payments received on the same (figures before netting) are reported in the consolidated financial statements (see note (98) of the notes to the consolidated financial statements).

As long-term construction contracts with customers can sometimes cover several financial years, there is an inherent estimation uncertainty in their accounting, particularly with regard to the expected total costs and other project risks, which can be influenced by discretionary decisions. The assessment of the stage of completion for the measurement of receivables from long-term construction contracts can be influenced by the adjustment of expected values or the consideration (or not) of expenses.

Given the inherent estimation uncertainty, particularly with regard to the expected total costs and other project risks, which are influenced by discretionary decisions, we deem the measurement of long-term construction contracts with customers a key audit issue.

Audit procedure

In addition to a structural and functional audit of the accounting-related internal control system with regard to the processes relevant to the measurement of long-term construction contracts with customers, our audit procedures focused in particular on the exercise of discretion and the estimation of expected values in accordance with the circumstances as at 31 December 2017 and all facts known by the time of the preparation of the consolidated financial statements. We tested the effectiveness of the controls implemented for the processes recognising revenue from progress billings and the recognition and allocation of staff costs to contracts at IVU Traffic Technologies AG, Berlin, and addressed these processes at IVU Traffic Technologies Italia s.r.l., Rome. Furthermore, analytical audit procedures were carried out with regard to the development of the contract values and the planned and actual costs, the total costs thus estimated and margin development. Furthermore, for all customer contracts, we selected a random sample of long-term construction contracts with customers using a risk-oriented selection process and performed a detailed analysis of the measurement of the corresponding contracts for this sample group. In addition to obtaining audit evidence, talks were held with employees in charge of projects to be able to recognise the measurement of long-term construction contracts with customers on the basis of continuously

updated project planning. In addition, evidence was obtained for the expenses recognised with regard to the objective allocation of the expenses and their being incurred before 31 December 2017, so that it was possible to take them into account in the measurement of the stage of completion.

Our audit procedures did not give rise to any objections regarding the measurement of long-term construction contracts with customers.

Reference to related information

Related information can be found under note (15) and from note (97) ff. in the notes to the consolidated financial statements.

2. Measurement of deferred tax assets from tax loss carryforwards

Reasons for identification as a key audit issue

Deferred tax assets were recognised in the consolidated financial statements as at 31 December 2017, consisting of deferred tax assets and deferred tax liabilities. The deferred tax assets include significant amounts from tax loss carryforwards in Germany.

In particular, the assessment of the assumptions made by the legal representatives regarding the timing and amount of future taxable income used to measure deferred taxes from tax loss carryforwards in Germany was material to our audit, as the assumptions made are discretionary and are based on a complex process including estimates on the basis of company planning.

Given the significance of the deferred taxes for the presentation of the net assets and results of operations of the Group, and the degree of discretion in estimates on the basis of company planning, we deem the measurement of deferred taxes from tax loss carryforwards a key audit issue.

Audit procedure

In particular, our audit procedures focused on the appropriateness of the expectations of the company's officers on the basis of company planning regarding the timing and amount of future taxable income as regards the probability that sufficient future taxable income will be available against which the loss carryforwards in Germany can be utilised. We looked at the tax planning for the next three financial years using the company planning prepared by the Executive Board for IVU Traffic Technologies AG, Berlin, in particular. We involved our tax specialists in order to understand the key assumptions used by the company's officers in company planning and to assess whether the deferred taxes recognised were properly calculated on this basis.

In order to assess the quality of tax planning, we compared prior planning for the Group's parent company, IVU Traffic Technologies AG, Berlin, with the actual development of IVU Traffic Technologies AG, Berlin. We also discussed and recalculated the tax planning with the company's officers.

Furthermore, the calculation of the underlying income tax rate for IVU Traffic Technologies AG, Berlin, was reconstructed. The analysis of the amount of the tax loss carryforwards included the assessment of the findings from the audit of the parent company already completed as at the preparation date in addition to tax notices and other correspondence with the tax authorities.

Our audit procedures did not give rise to any objections regarding the measurement of deferred taxes from tax loss carryforwards.

Reference to related information

Related information can be found under note (16) and from note (124) ff. in the notes to the consolidated financial statements.

3. Impairment testing of goodwill

Reasons for identification as a key audit issue

Goodwill is recognized in the consolidated financial statements as at 31 December 2017, which relates to the cash generating units (CGU) Public Transport Logistics. The recoverable amounts determined to assess impairment are based on the value in use as determined on the basis of the expected future cash flows, which are derived from the expected future operating results in the budget for the 2018 financial year, the detailed planning period until the 2022 financial year and the forecast perpetual annuity.

The impairment test to be performed at least once a year is a complex process based on discretionary assumptions, particularly with regard to the future development of the Group's financial position.

Given the complexity of the underlying company planning, which entails an elevated risk of accounting misstatement, and the degree of discretion displayed in measurement, we deemed the impairment testing of goodwill a key audit issue.

Audit procedure

We involved our measurement specialists in our audit procedures to assist in the assessment of the measurement method applied. We assessed the assumptions regarding the future development of the CGUs and the definition of the individual CGUs on the basis of company planning by comparing this with the current development in the company's figures. In particular, regarding the impairment of the goodwill attributable to the Logistics CGU, we analysed the expectations of the company's officers regarding the future development and profitability of business and the underlying assumptions.

Our audit procedures did not give rise to any objections regarding the impairment testing of goodwill.

Reference to related information

Related information provided by the company can be found under notes (28), (89) and (90) in the notes to the consolidated financial statements.

Other information

The Supervisory Board is responsible for the report of the Supervisory Board, the company's officers are responsible for the miscellaneous other information. Other information includes the following:

- the responsibility statement in accordance with section 297(2) sentence 4 HGB and section 315(1) sentence 5 HGB under "Additional information in accordance with section 315(1) sentence 5 HGB, section 315a(1) and (2) HGB and section 315(4) HGB" in the Group management report;
- the Group's corporate governance declaration in accordance with section 315d HGB under "Corporate governance declaration in accordance with section 315d HGB" in the Group management report.

and other elements intended for the annual report, of which we obtained a version dated 20 March 2018 prior to issuing this audit opinion, in particular the report of the Supervisory Board.

Our audit opinions on the consolidated financial statements and the Group management report do not extend to the other information, and accordingly we do not offer any audit opinion or any other form of audit conclusion on it.

In connection with our audit, we have the responsibility to read the other information and to assess whether the other information:

- contains material inconsistencies with the consolidated financial statements or our findings from the audit; or
- is otherwise materially misrepresented.

AUDITOR'S REPORT

Responsibility of the company's officers and the Supervisory Board for the consolidated financial statements and the Group management report

The company's officers are responsible for the preparation of the consolidated financial statements that, in all material respects, comply with the IFRSs as adopted by the EU and the additional requirements of German commercial law in accordance with section 315e(1) HGB, and that the consolidated financial statements give a true and fair view of the net assets, financial position and results of operations of the Group. Furthermore, the company's officers are responsible for the internal controls that they have deemed necessary to enable the preparation of consolidated financial statements that are free from – intentional or unintentional – material misstatement.

In preparing the consolidated financial statements, the company's officers are responsible for assessing the Group's ability to continue as a going concern. They are also responsible for disclosing matters in connection the continuation of business activities, if relevant. Furthermore, they are responsible for the accounting on the basis of the going concern principle, unless there is the intention to liquidate or discontinue the Group, or there is no realistic alternative.

Moreover, the company's officers are responsible for the preparation of the Group management report that, on the whole, provides a suitable view of the Group's position and, in all material respects, is con-sistent with the consolidated financial statements and with German legal requirements, and accurately presents the risks and opportunities of future development. Also, the company's officers are responsi-ble for the precautions and measures (systems) that they deem necessary to enable the preparation of a Group management report in accordance with the applicable German legal requirements to provide sufficient suitable evidence for the statements in the Group management report.

The Supervisory Board is responsible for monitoring the Group's accounting process for the preparation of the consolidated financial statements and the Group management report.

Auditor's responsibility for the audit of the consolidated financial statements and the Group management report

Our objective is to obtain reasonable assurance as to whether the consolidated financial statements as a whole are free from material – intentional or unintentional – misstatement and whether the Group management report as a whole provides a suitable view of the Group's position and, in all material respects, is consistent with the consolidated financial statements, audit findings and German legal requirements, and accurately presents the risks and opportunities of future development, and to issue an audit report containing our audit opinions on the consolidated financial statements and the Group management report.

Reasonable assurance is a high degree of assurance, but not a guarantee that an audit performed in accordance with section 317 HGB, the EU Audit Regulation and the German generally accepted standards for the audit of financial statements promulgated by the IDW will always reveal a material misstatement. Misstatements can result from violations or inaccuracies, and are considered material if they could reasonably be expected, individually or collectively, to influence the economic decisions that users make on the basis of these consolidated financial statements and the Group management report.

We exercise due discretion and maintain a critical approach. Furthermore:

- We identify and assess the risks of – intentional or unintentional – material misstatements in the consolidated financial statements and the Group management report, we plan and perform audit procedures in response to these risks, and obtain audit evidence

that is sufficient and appropriate to form the basis of our audit opinions. The risk that material misstatements are not detected is greater for violations than for inaccuracies, as violations can include fraud, falsification, intentional omissions, misrepresentation or the invalidation of internal controls;

- We gain an understanding of the internal control system relevant to the audit of the consolidated financial statements and of the systems relevant to the audit of the Group management report in order to plan audit procedures that are appropriate under the given circumstances, but not with the objective of expressing an opinion on the effectiveness of these systems;
- We assess the appropriateness of the accounting policies applied by the company's officers and the reasonableness of the estimates and related disclosures by the company's officers;
- We draw conclusions about the appropriateness of the going concern principle applied by the company's officers and, on the basis of the audit evidence obtained, whether there is material uncertainty about events or circumstances that can give rise to significant doubts about the Group's ability to continue as a going concern. If we come to the conclusion that material uncertainty exists, we are required to refer to the relevant disclosures in the consolidated financial statements and the Group management report in the auditor's report or, if these disclosures are inappropriate, to modify our respective audit opinion. We draw our conclusions on the basis of the audit evidence obtained up to the date of our opinion. However, future events or circumstances can lead to the Group being unable to continue its business activities;
- We assess the overall presentation, structure and content of the consolidated financial statements, including the notes, and whether the consolidated financial statements present the underlying transactions and events in such a way that the consolidated financial statements, in accordance with the IFRSs as adopted by the EU and the additional requirements of German commercial law in accordance with section 315e(1) HGB, give a true and fair view of the net assets, financial position and results of operations of the Group;
- We obtain sufficient, suitable audit evidence for the accounting information of the companies or business activities within the Group in order to issue audit opinions on the consolidated financial statements and the Group management report. We are responsible for designing, monitoring and performing the audit of the consolidated financial statements. We bear sole responsibility for our audit opinions;
- We assess that the Group management report is consistent with the consolidated financial statements and the law, and the view of the position of the Group that it provides;
- We perform audit procedures on the forward-looking statements made in the Group management report by the company's officers. In particular, on the basis of sufficient and suitable audit evidence, we analyse the significant assumptions on which the forward-looking statements are based, and assess whether the forward-looking statements have been properly derived from these assumptions. We do not issue a separate audit opinion on the forward-looking statements or the underlying assumptions. There is a considerable yet unavoidable risk that future events will deviate materially from the forward-looking statements.

Among other things, we discuss with those responsible for overseeing the audit the planned scope and scheduling of the audit and significant audit findings, including any deficiencies in the internal control system that we identify during our audit.

We declare to those responsible for overseeing the audit that we complied with the relevant independence requirements and discuss with them all relationships and other issues that can reasonably be assumed to affect our independence, and the precautions taken against this.

Of the issues we discussed with those responsible for overseeing the audit, we determine which issues were most significant in the audit of the consolidated financial statements for the current reporting period and that are therefore the key audit issues. We describe these issues in our audit opinion, unless the public disclosure of such issues is prevented by law or other legal provisions.

Other legal and requirements

Other disclosures in accordance with Article 10 of the EU Audit Regulation

We were elected as the auditor of the consolidated financial statements by the Annual General Meeting on 31 May 2017. We were engaged by the Supervisory Board on 27 November 2017. We have served as the auditor of the consolidated financial statements of IVU Traffic Technologies AG, Berlin, without interruption since the 2002 financial year.

We declare that the audit opinions contained in this audit report are consistent with the additional report to the Supervisory Board in accordance with Article 11 of the EU Audit Regulation (audit report).

Responsible auditor

The auditor responsible for the audit is Mr Philipp Canzler.

Berlin, 21 March 2018

Ernst & Young GmbH
Wirtschaftsprüfungsgesellschaft

Canzler	Weinberg
Wirtschaftsprüfer	Wirtschaftsprüfer
(German Public Auditor)	(German Public Auditor)

RESPONSIBILITY STATEMENT

RESPONSIBILITY STATEMENT

We represent that, to the best of our knowledge and in accordance with applicable accounting principles, the consolidated financial statements present a true and fair view of the Group's net assets, financial situation and results of operation, and that the Group management report describes fairly, in all material respects, the Group's business trend and performance, the Group's position and the significant risks and opportunities of the Group's expected future development.

Berlin, March 2017

The Executive Board

Martin Müller-Elschner

Matthias Rust

Leon Struijk

FINANCIAL CALENDAR
BOARDS

FINANCIAL CALENDAR 2018

Wednesday, 21 March 2018
Publication of the 2016 Annual Report

Tuesday, 29 May 2018
Three-months report as at 31 March

Wednesday, 30 May 2018
Annual General Meeting

Wednesday, 31 August 2018
Six-months report as at 30 June

Wednesday, 21 November 2018
Nine-months report as at 30 September

BOARDS

Supervisory Board
- Prof Herbert Sonntag (Chairman)
- André Neiß
- Uli Meyer-Johanssen

Executive Board
- Martin Müller-Elschner (Chairman)
- Matthias Rust
- Leon Struijk

Advisory Board
- Dr Heiner Bente, Hamburg
- Prof Manfred Boltze, Darmstadt
- Bert Meerstadt, Bussum (NL)
- Prof Adolf Müller-Hellmann, Cologne
- Prof Ronald Pörner, Berlin
- Volker Sparmann, Hofheim am Taunus

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