

ANNUAL REPORT **2021**



KEY FIGURES

Overview

CONSOLIDATED FINANCIAL STATEMENTS IN LINE WITH IFRS

	2017	2018	2019	2020	2021	Change 2021 to 2020
Revenue	71.1	77.8	88.8	92.0	102.9	+ 10.9
Gross profit	47.7	52.1	62.1	70.4	75.8	+ 5.4
Personnel expenses	31.2	33.9	39.7	46.2	49.8	+ 3.6
EBIT	6.1	6.7	10.5	12.8	13.9	+ 1.1
Consolidated net loss / profit	5.0	6.2	10.6	10.1	9.3	-0.8
Cash flow from operating activities	3.8	12.3	12.5	30.8	19.1	-11.7
Free cash flow	2.9	9.8	8.0	1.8	10.4	+ 8.6

KEY FIGURES

	2017	2018	2019	2020	2021
Equity ratio (Equity/Total assets)	64 %	61 %	54 %	50 %	52 %
EBIT/Revenue	8.6 %	8.6 %	11.8 %	13.9 %	13.5 %
EBIT/Gross profit	12.9 %	12.9 %	16.9 %	18.2 %	18.4 %
Dividend (€/Share)	0.10	0.12	0.16	0.20	0,22*
Full-time equivalents as annual average	419	458	496	572	621
Gross profit per FTE (in € thousand)	114	114	125	123	122

* Proposal to the Annual General Meeting

LETTER TO THE SHAREHOLDERS

Dear shareholders,

In 2021, IVU again had the most successful financial year in its history. Revenue increased by 11.8% to €102.9 million, reaching nine figures for the first time. Gross profit, which reflects the added value of IVU, rose by 7.7% to €75.8 million. EBIT also developed positively, setting a new record after growing 9.0% to €13.9 million. We would like to share this success with you, and will therefore be proposing an increased dividend of €0.22 at the Annual General Meeting.

For more than two years, the coronavirus pandemic has been causing major problems for us all, and especially for our customer group of transport companies. However, we firmly believe that public transport will not only recover, but also benefit from significantly higher passenger numbers.

As a digital company, IVU has coped well with the pandemic so far. Orders remain high, and as an IT company we are able to conduct many projects remotely and bring them to a successful conclusion.

The international railway business remains very successful. In 2021, we added the Lithuanian state railway LTG as well as other concessions in Sweden. At DB Regio, we also successfully completed one of the biggest IT projects in our industry. We expect the deregulation of railway markets in many European countries to give rise to additional opportunities in the years to come.

We also see great potential in local urban transport around Europe, especially due to megatrends such as digitalisation and electric mobility. Via our branch in Rome, for example, we have acquired important new customers in Italy and Southeast Europe.

In the past year, we again significantly increased our staffing and brought numerous new engineers on board at IVU so as to be prepared for future growth. The labour market remains highly competitive and difficult to assess because of the pandemic, but we are confident that we will continue to attract highly qualified personnel to the exciting and meaningful work in the public transport sector.



IVU is and will remain a sustainable investment. Our products actively contribute to protecting the climate by promoting the efficient operation of buses and trains and making public transport more attractive. As a company and with you as shareholders, we thus help to reduce greenhouse gas emissions that harm the climate and continuously increase the share of traffic volume attributable to environmentally friendly alternatives. The fight against climate change can only succeed with environmentally friendly, modern public transport – and that is what IVU stands for.

We are confident that IVU will continue to earn your loyalty in 2022.

Yours sincerely,

THE EXECUTIVE BOARD

Berlin, March 2022

REPORT OF THE SUPERVISORY BOARD

Dear Shareholders,

As the Supervisory Board, our function is to oversee the current economic situation and future development of IVU Traffic Technologies AG and to safeguard it over the long term. We will inform you about our work in the 2021 financial year below.

We continuously monitored and advised the Executive Board in line with legislation, the company statutes and the German Corporate Governance Code (DCGK). We informed ourselves in detail about the economic and financial performance, key business events and the strategy and planning of IVU. The Executive Board notified the Supervisory Board promptly and on a regular basis. All important facts and relevant documents required for pending decisions were made available to us in good time.

In its advisory capacity during the past year, the Supervisory Board dealt in particular with the continued growth of IVU and the organisational adaptations. Focus areas include the ongoing impact of the coronavirus pandemic, the business plan and the ongoing development of cooperation and partnerships.

The Supervisory Board consists of a total of six members, four of whom represent the shareholders and two of whom are elected by IVU employees. The shareholder representatives are Prof. Herbert Sonntag (Chairman), Ute Witt (Deputy Chairwoman), Dr Heiner Bente and Prof. Barbara Lenz. The employees are represented by Axel Zimmermann and Benedikt Woelki. Cooperation between the shareholder side and employee representatives was constructive. All members of the Supervisory Board are committed to the overarching goal of making the best decisions for the company.

The Chairman of the Supervisory Board maintained regular contact with the Executive Board above and beyond the meetings. He brought major findings and information from these discussions to the attention of 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. Four scheduled meetings were held in 2021: The dates in question were 24 March, 26 May, 26 August and 18 November. In addition, a strategy meeting was held on 19 November to discuss the business plan for the years ahead. The Supervisory Board was represented at all meetings in a quorate number. No member of the Supervisory Board attended only half or less of the meetings of the Supervisory Board and the committees to which he or she belongs. The scheduled meetings and additional briefings held as unscheduled meetings were held both as face-to-face meetings and, on account of the pandemic, virtually.

Supervisory Board member	Meeting attendance incl. meetings of the committees	Meeting attendance in %
Prof. Herbert Sonntag (Chairman)	9 / 9	100%
Ute Witt (Deputy Chairwoman)	7 / 7	100%
Dr Heiner Bente	6 / 6	100%
Prof. Barbara Lenz	4 / 4	100%
Benedikt Woelki	4 / 4	100%
Axel Zimmermann	7 / 7	100%

As recommended in the German Corporate Governance Code (DCGK), the Supervisory Board and its committees regularly discussed matters entirely or from time to time without the presence of the Executive Board. The agenda items discussed either concerned the Executive Board itself or required an internal discussion with the Supervisory Board for notices and resolutions. Within the scope of the scheduled meetings, preparatory and follow-up discussions also took place between the members of the Supervisory Board for the purposes of sharing information and preparing decisions. An efficiency review of the Supervisory Board was also conducted at separate meetings with

the help of external parties and had a positive outcome on collaboration.

Focal Points of Discussions

Discussions focused on the economic situation of the company, its prospects and its future orientation in the international competitive environment. In this regard, the Supervisory Board scrutinised in detail the Executive Board's strategy for developing business with public transport companies. We support the Executive Board's efforts in expanding the product portfolio and strengthening the company's presence in additional markets.

Other key focal points of the meetings were:

- Assessing and approving planning for fiscal year 2021
- Approving the consolidated financial statements 2020
- Adopting the separate financial statements 2021
- Liquidity planning 2021
- Discussing the quarterly financial statements 2021
- Personnel development chiefly to increase proportion of women
- Compliance management
- Risk management
- Safety management
- Major projects and their economic impacts on the company
- Preparations for the Annual General Meeting
- Cooperation and partnerships
- Determining the focal points of the audit with the auditor for the 2021 annual financial statements (individual and consolidated financial statements)
- Efficiency review of the work of the Supervisory Board

Committees

The committees support the work of the plenary assembly and prepare documents and materials for various agenda items. The following committees were convened in the 2020 financial year:

- General Committee (Prof. Herbert Sonntag (Chairman), Dr Heiner Bente)
- Audit Committee (Ute Witt (Chairwoman), Prof. Herbert Sonntag, Axel Zimmermann)

In the past financial year, the General Committee dealt with fundamental questions relating to the company, especially with strategy planning, possible M&A activities and restructuring as well as with contracts of service, the remuneration system and personnel matters of the Executive Board, including perspective planning. In addition to numerous informative exchanges, the full committee met twice at scheduled meetings in the course of the financial year.

In the past financial year, the Audit Committee held a number of informative discussions at which it dealt in particular with the activities of the auditor, issues relating to accounting, the internal control system, risk management and compliance, in particular with the requirements presented by legislative changes and the impact of these on IVU. The committee met three times in 2021, with one meeting used to discuss the audit of the 2020 annual financial statements with the auditor and set out the focal points of the 2021 audit of the annual financial statements with the new public auditor. All committee members were present at the meetings.

Training and professional development measures

In the past financial year, the members of the Supervisory Board regularly took part in training and professional development measures. The members of the Supervisory Board maintain a list of participation in training sessions.

Corporate Governance

Responsible management and sustainable value creation are hugely important to IVU Traffic Technologies AG. Therefore, in 2021, 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.com) together with the corporate governance declaration. With just a few exceptions, IVU meets the code's recommendations. Detailed reasons for the deviations are provided.

Annual and Consolidated Financial Statements 2021

The Audit Committee has dealt intensively with the annual financial statements of IVU Traffic Technologies AG and the consolidated financial statements of

31 December 2021 and the respective management reports together with the auditors of BDO AG Wirtschaftsprüfungsgesellschaft. At the accounts meeting on 24 March 2022, the Audit Committee recommended that the other members of the Supervisory Board approve the consolidated financial statements and adopt the individual financial statements of the AG. In this meeting of the Supervisory Board, we considered in detail the annual financial statements of IVU Traffic Technologies AG, the consolidated financial statements as at 31 December 2021 as well as the respective management reports. The auditors, BDO AG 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, 31 March 2022

For the Supervisory Board

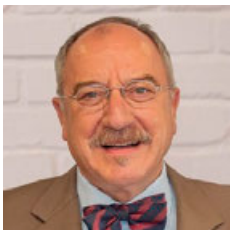


Prof. Herbert Sonntag

Chairman of the Supervisory Board

THE MEMBERS OF THE SUPERVISORY BOARD

Shareholder representatives

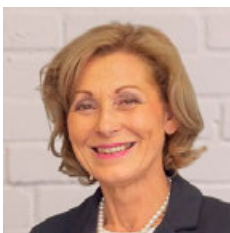


Prof. Herbert Sonntag, Berlin

(Chairman of the Supervisory Board and of the General Committee, member of the Audit Committee)

Activities and mandates:

- Professor of Transport Logistics at the Technical University (TH) Wildau,
- Advisory board and honorary member of LNBB Logistiknetz Berlin-Brandenburg e.V.,
- Representative for Brandenburg of Allianz pro Schiene e.V.,
- Honorary Professor at German-Kazakh University, Almaty Kazakhstan,
- Visiting Professor GTU Georgian Technical University, Tbilisi, Georgia.



Ute Witt, Potsdam

(Deputy Chairwoman of the Supervisory Board and Chairwoman of the Audit Committee)

Activities and mandates:

- Chairwoman of the Supervisory Board of Sellutions AG,
- Member of the Supervisory Board of Charité Research Organisation GmbH,
- Vice President, Treasurer and Head of the Budget Committee of the Berlin Chamber of Industry and Commerce (until 14 January 2022),
- Member of the Tax Committee and Chairwoman of the "International Tax Issues" subcommittee of the DIHK, Berlin,
- Member of the Federal Tax Commissions of the Economic Council of the CDU e.V., Berlin,
- Board member of the Potsdamer Steuerforum e.V., Potsdam,
- Member of the Economic Advisory Board of Domstift Brandenburg, Brandenburg a.d.H.,

- Member of the Audit Committee of Berliner Stadtmission, Berlin,
- Managing Director of Ute Witt Tax Consulting UG Steuerberatungsgesellschaft, Berlin.



Dr Heiner Bente, Hamburg

(Member of the general committee)

Activities and mandates:

- Managing Partner, Dr. Heiner Bente Consulting, Hamburg,
- Senior Advisor at civity Management Consultants, Hamburg,
- Chairman of the Supervisory Board of birkle IT AG, Munich (until January 2021),
- Deputy Chairman of the Advisory Board of the Schürfeld Group, Hamburg.



Prof. Barbara Lenz, Berlin

Activities and mandates:

- Director of the Institute of Transport Research at the German Aerospace Center, Berlin (until April 2021),
- Professor for Traffic Geography, Humboldt University of Berlin (until April 2021, since then: Visiting Professor at Humboldt University of Berlin),
- Member of the Supervisory Board of Berliner Verkehrsbetriebe (BVG),
- Cluster spokesperson for the Transport, Mobility and Logistics Cluster of Berlin and Brandenburg (until April 2021).

Employees representatives



Benedikt Woelki, Berlin

Activities and mandates:

- Support Account Manager at IVU Traffic Technologies AG, Berlin.



Axel Zimmermann, Düren

(Member of the audit committee)

Activities and mandates:

- Quality manager at IVU Traffic Technologies AG, Aachen,
- Chairman of the Works Council of IVU Traffic Technologies AG at the Aachen site,
- Deputy Chairman of the General Works Council of IVU Traffic Technologies AG.

INTERVIEW WITH THE EXECUTIVE BOARD

In spite of the turbulent times worldwide, IVU manages to present good figures each and every year. How do you achieve that?

MARTIN MÜLLER-ELSCHNER: Our good performance over the last few years is thanks primarily to our integrated standard system – the IVU.suite. The IVU.suite is a brand that has been established over decades and that we are continually expanding and improving – and transport companies across the world appreciate that. In terms of the last financial year, I would like to point out that we increased our results again despite the sale of IVU.elect GmbH in 2020. Discounting this special effect, our figures are even more impressive when compared to the previous year.

Many companies still had to content with the repercussions of the pandemic in the last financial year. Why has IVU remained largely unaffected by this so far?

MARTIN MÜLLER-ELSCHNER: While public transport came to a halt on account of the pandemic, this did not stop the sector's long-term growth. Transport companies are continuing to invest heavily in digitalisation to boost their efficiency even further – which is where we come in. As a software company, we also have the advantage of being able to work mostly remotely. So we have fared well in the pandemic so far, but we are remaining vigilant.

You again had important orders abroad in 2021. How do these projects work during the pandemic?

LEON STRUIJK: As mentioned, as a digital company we can carry out almost every procedural step remotely. For example, we completed the project at our rail customer Keolis Downer in Australia in just four months, entirely virtually. This was an excellent joint effort by all colleagues involved and our local partners at Keolis Downer. Nonetheless, after the pandemic we will almost certainly return to more in-person contact with our customers – personal contact is still irreplaceable.

The software as a service model is now commonplace in the sector. How is licensing business developing at IVU?

MATTHIAS RUST: We have delivered our entire system using the lease model for some years now and, where necessary, assume responsibility for operation, hosting and support in the IVU.cloud. This allows us to continually increase the share of regular income and ensures planning reliability. Last year, for example, the Lithuanian state railway LTG opted for our complete SaaS model together with IVU.cloud. Other prestigious customers such as Trenitalia and SJ, Sweden's largest rail company, have been using our hosting in the cloud for years. However, most customers still operate our systems themselves and so we believe there is good potential for future growth here.

You mentioned that you are continually expanding and improving the IVU.suite. What new changes were made in 2021?

MATTHIAS RUST: All products of the IVU.suite are continuously enhanced – we now have over 350 software engineers. Much of this takes place out of sight, but I would like to highlight two examples: We developed the IVU.box.gateway, which can re-purpose commercial tablets into fully comprehensive on-board computers. This allows bus drivers to communicate smoothly with and inside the vehicle, while the gateway works constantly to gather vehicle data and acts as a data hub in the bus. Secondly, we expanded our staff dispatching and ticketing software to help transport companies enforce coronavirus vaccine/testing regulations on public transport and at work. We developed these immediately after the new German Infection Protection Act came into effect and made them available to our existing customers free of charge, something that was very well received.



How do you see the situation in Germany and in Europe in terms of the development of public transport? Can we expect further investment here?

MARTIN MÜLLER-ELSCHNER: The new federal government has already sent its first positive message with its plans to increase the carbon price, step up digitalisation in the transport sector and promote e-mobility. At European level, too, there is still a focus on public transport. As part of the Green Deal, for example, the EU declared 2021 the "European Year of Rail". The truth is that we will require far stronger public transport in Europe in the future if we are to achieve the climate targets we have set – and governments know that.

Your steadily growing financial reserves also present an opportunity for potential acquisitions. Do you have anything to report in this regard?

LEON STRUIJK: Let me put it like this: We are actively watching the market and are involved in some good talks. At the same time, however, we are still very cautious and will carefully weigh up whether an acquisition is right for IVU and whether it will pay off in the long term.

What are your goals for 2022?

MARTIN MÜLLER-ELSCHNER: Our biggest goal is to work together to overcome the pandemic so that we can spend more time with each other. We have had far too little interaction with our colleagues and customers in the last two years and I am really looking forward to celebrating our annual summer party in person again and reviving our in-house table tennis league – even though I usually lose. Face-to-face communication and contact is what makes IVU's corporate culture – people are at the core of our business.

IVU WORLDWIDE

BERLIN (HEADQUARTERS),
AACHEN, FRANKFURT AM MAIN
(DE), **UTRECHT** (NL), **ROME** (IT),
BIRMINGHAM (GB), **VIENNA** (AT),
PARIS (FR), **BUDAPEST** (HU),
MONTREAL (CA), **OLTEN** (CH),
NEW YORK (US), **SANTIAGO** (CL),
HANOI (VN), **ISTANBUL** (TR)





Selected references

SWEDEN

MTR Nordic plans and dispatches staff and vehicles on several long-haul Swedish concessions with IVU.rail.

GERMANY

Germany's largest bus company DB Regio Bus uses the IVU.suite to establish a single system in all operating regions.

AUSTRALIA

In just four months, IVU implemented its standard system in Australia completely virtually.

LITHUANIA

A systematic modernisation programme is intended to increase rail company LTG's share of the total volume of traffic in Lithuania – with the help of IVU.rail.

ITALY

IVU gained numerous new Italian customers in 2021, including the transport companies Autolinee Toscane, Mercitalia, ATB Bergamo, APT Gorizia and AMAT Taranto.

HIGHLIGHTS 2021





Projects

"We are delighted to be able to use IVU's tried and tested standard system for our new concession," said Frida Ukmar, CEO of MTR Mälartåg.



STRONG MARKET POSITION.

With installations at most railway companies, IVU.rail is the leading system for resource planning in Scandinavia.



MTR Nordic opts for IVU.rail for additional long-haul Swedish concessions

The entire Scandinavian Peninsula has always been a pioneer when it comes to public transport and in the last few years has become one of IVU's most important markets. IVU has successfully collaborated with MTR Nordic on Stockholm's Pendeltåg commuter rail network since 2016. To ensure efficient and customer-friendly long-haul transport on the 277 km Mälärbanan concession between the Swedish capital and Örebro, the railway company is again relying on IVU.rail – for the first time as software as a service. This provides MTR Nordic with a standardised system for the planning and dispatch of all vehicles and employees on the Mälärbanan rail route. As planners and dispatch managers already have considerable expertise with IVU.rail on the Pendeltåg network, they can operate the new project almost entirely independently – a major advantage of the standard system.



Complete roll-out at DB Regio

One system for all transport networks – after five years, IVU has finished installing IVU.rail for all DB Regio regions. DB Regio and IVU signed a framework contract to this effect in 2016 and have since been gradually phasing out the existing planning and dispatch systems for rail transport in the Group and replacing them with IVU.rail as standard. The installation now allows a total of 14,000 vehicles and 17,000 employees to be planned and dispatched on a standardised basis. Since July 2021, DB Regio has thus been able to carry out its entire resource planning and dispatch in a standardised system. The IT project is one of the largest in the sector worldwide and represents a milestone for IVU.



New production system for DB Regio Bus

DB Regio Bus is the largest bus operator in Germany, servicing over 720 million passengers and providing a transport capacity in excess of eight billion passenger kilometres a year. The company schedules and dispatches over 12,000 buses a day across its six operating regions with a total of 27 individual companies. DB Regio Bus will use IVU.suite in the future so that it has a standardised system for all planning and dispatching requirements across all operating regions. It will see the bus division of the DB Group move to a central IT solution, which will allow for nationwide standardisation of production and data capture processes. The new system will gradually be rolled out across all the regional bus companies over the next three years.

INTEGRATED AND FROM A SINGLE SOURCE:

IVU's solutions map a transport company's operational processes in their entirety – on roads, rails and in the control centre.



Lithuanian Railways chooses IVU.rail for modernisation

Lietuvos Geležinkeliai (LTG) is one of the most important company groups in Lithuania and manages the country's rail network. With a systematic modernisation programme, the company is looking to significantly increase its efficiency and its share of the total volume of traffic in Lithuania over the coming years. This will be supported by IVU.rail. The standard system prevailed in a pan-European tender, with the client particularly impressed by the solution's unique functional scope. In future, LTG Link will plan and dispatch its entire vehicle fleet and personnel in a standardised environment.



ESWE Verkehr dispatches fleet of electric buses using IVU.suite

Each year, ESWE Verkehrsgesellschaft mbH takes more than 61 million passengers in Wiesbaden to where they want to go. The environmentally friendly bus fleet is to comprise exclusively battery-powered electric buses in the foreseeable future. This makes ESWE Verkehr one of the pioneers of sustainable transport in Germany and one of the first companies to electrify its entire fleet. In the future, the mobility service provider will plan and dispatch 120 new eCitaro buses from EvoBus using the integrated electric bus solutions of the IVU.suite.



Virtual implementation of IVU.rail at Keolis Australia

As Australia's largest private transport operator, Keolis Downer transports around 250 million passengers a year throughout the whole continent. The company began commuter railway operations in the southern coastal city of Adelaide at the start of 2021. To plan and dispatch the approx. 100 trains and 300 employees efficiently, Keolis Downer is using IVU.rail. In just four months, IVU implemented the entire system – entirely virtually from Berlin.



20 years of IVU Italia – a real success story

Public transport in Italy is booming. The high-speed Frecciarossa trains are successfully displacing domestic flights and the Italian government is investing billions in its railways. For over 20 years, the IVU branch in Rome has been responsible for local transport operators and customers beyond Italy across all of Southeast Europe. This allowed IVU to continually expand its market position in Italy and bring numerous new users on board, including major customers such as the Italian national railway Trenitalia, the underground railway in Milan and Autolinee Toscane. IVU Italia has enjoyed steady growth in the last few years – and this shows no signs of stopping.



Planning and dispatching of Mercitalia freight trains

Mercitalia is one of the largest freight transport companies in Europe. The freight transport subsidiary of the Italian national railway Ferrovie dello Stato Italiane (FS) has transported about 60 million tonnes of goods each year since it was founded in 2017. Since last year, Mercitalia has used IVU.rail to plan and dispatch its 340 electric and 130 diesel trains for more than 2000 trips each week. IVU also provides optimisation solutions and hosts the entire system in the cloud. Customers such as Mercitalia and SBB Cargo in Switzerland are proof that IVU.rail is the ideal end-to-end solution for the highly complex planning requirements in freight transport.



IVU.suite for Bergamo, Gorizia and Taranto

More transport operators are also using the IVU.suite in the northern Italian city of Bergamo, Gorizia on the border with Slovenia and the major city of Taranto in Apulia in the far south. For example, starting in April 2022 ATB Bergamo will use the standard system to plan and dispatch its vehicles and personnel. APT Gorizia has also turned to the IVU.suite to link the cities of Trieste, Gorizia and Udine using its bus routes. Like ATB Bergamo, this also provides APT with an end-to-end digital workflow from planning through to dispatch. In the Taranto province, the transport company AMAT relies on IVU's advice and expertise in a duty optimisation project.

Autolinee Toscane opts for all-round system from IVU

From Florence to the vineyards of Chianti all the way to the Leaning Tower of Pisa – the public transport network not only provides a link between Tuscany's various attractions, but also helps locals and tourists get around. Since 2021, Autolinee Toscane S.p.A., a wholly owned subsidiary of French company RATPDev, has assumed responsibility for the whole of the public transport network that serves Central Italy. Right from the outset, the transport operator will use IVU's integrated all-round solution to plan and deploy vehicles and staff efficiently. IVU.suite provides support for all Autolinee Toscane's activities: from planning and dispatch through to communication with fleet management, ticketing and settlement.



From Bergamo to Florence to Taranto, all across Italy transport companies are relying on the market leader, IVU.suite and IVU.rail.

Social Media and Events



XING LinkedIn

TAP TSI: The new European standard

IVU.rail contains everything you need to order, reorder or cancel train paths from the infrastructure operator by the planning and dispatch.



XING LinkedIn

Annual General Meeting 2021

Successful virtual Annual General Meeting



XING LinkedIn

Team event in Berlin's Spreepark

For the annual team event, our corporate communications staff was in Berlin's weird and wonderful Spreepark this summer.



XING LinkedIn

Congratulations to all graduates of RWTH Aachen University

We would like to congratulate all graduates of RWTH Aachen University.

IVU.suite
FOR THE E-MOBILITY OF TOMORROW

IVU.suite
Efficient deployment of electric buses

- Optimised planning**
Charging plans and range forecasts for reliable vehicle workings
- Integrated depot management**
Smart charging management and peak shifting for optimum processes
- Extracting potential**
Comprehensive data analysis for high-precision simulation

EBS.forecast + EBS.charge
INTEGRATED ENERGY FORECASTING
AND CHARGING PLANNING FOR
ELECTRIC BUSES

- EBS.forecast**
Forecasts use-specific energy consumption for each bus - using simulation models and real data
- EBS.charge**
Fully charged into the vehicle working - smart planning algorithms take into account network and charging behaviour for optimum charging plans

IVU. SYSTEMS FOR VIBRANT CITIES.

ElekBü 2021. Anyone who was interested could talk to our e-mobility experts by live chat or video call at our virtual stand.



XING LinkedIn

EU promotion: 1.25 billion euros for clean buses

The European Commission has approved the promotion of alternative drive options in passenger transport on 7 September.



XING LinkedIn

Cycling to work

Healthy and environmentally friendly on the road - this year we are once again taking part in the Germany-wide campaign



XING LinkedIn

2021: The European Year of Rail

2021 is the "European Year of Rail" - by far the most sustainable and safest transport modes in the world.



XING LinkedIn

Virtual User Forum 2021

The User Forum 2021 was a great success - completely virtual and with over 570 participants.



XING LinkedIn

Official speech at the graduation ceremony of the Johannes Gutenberg University Mainz

Dr Falco Hageböling gave the official speech at the graduation ceremony of the Johannes Gutenberg University Mainz.



XING LinkedIn

DeuZert certificate for IVU's information security management system

DeuZert has certified that IVU fulfils all the requirements for the information security management system.

Work in the time of coronavirus

Whether it be virtual events such as our IVU User Forum or the Keolis Downer project in Australia, which was carried out entirely online - we have learnt how to work from home successfully and efficiently during the pandemic. We also attempted to actively contribute to containing the pandemic in 2021. For example, IVU provided free Covid tests at its various locations at all times and offered vaccinations to its employees. We are certain that we will be able to overcome the pandemic together and are already looking forward to meeting our colleagues, customers and partners again in person in the near future.

Online User Forum

Exceptional times call for exceptional measures. Since the situation did not allow face-to-face events, the IVU User Forum took place last year not in Berlin, as we had hoped, but on our customers' screens. This was the 33rd time this long-standing event will be held - and the second time in an online format. Topics discussed ranged from the efficient use of electric buses to the IVU.cloud to integrated transport path management, featuring exciting live presentations and success stories from our customers. With almost 600 participants from all over the world, the event was a complete success.

Innovations

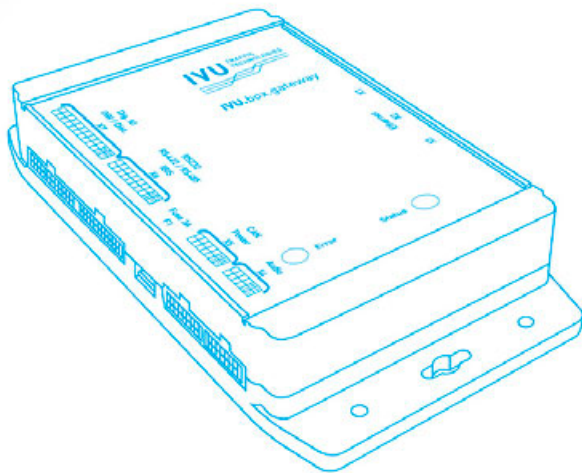


COVID RESTRICTIONS ON PUBLIC TRANSPORT: The IVU solution means that public transport operators can save time and resources while improving safety, security and passenger satisfaction at the same time.

New gateway for all in-bus vehicle interfaces

The IVU.box.gateway can turn any end device into an on-board computer – flexible, cost-effective and featuring all the relevant interfaces. This means that Android tablets, for example, can be re-purposed as fully comprehensive on-board computers and their life cycles upgraded accordingly.

Transport companies can link powerful hardware to just the right software system in their buses. The IVU.box.gateway safeguards smooth communication both with the vehicle and inside it, works constantly to gather vehicle data and acts as an on-board bus control centre. Using the gateway, bus operators can also change the IT in the vehicle according to its life cycle. This keeps long-life-cycle and short-life-cycle IT separate, helping to cut costs and save resources.



Solutions for checking compliance with Covid restrictions on public transport and at work

During the pandemic, Germany's '3G' rule (requiring people to provide proof of either being vaccinated, having recovered from COVID within the last six months or having tested negative for COVID within the last 48 hours – geimpft, genesen and getestet respectively, hence '3G') has applied to public transport and workplaces nationwide. Public transport operators are required to conduct spot checks aimed at ensuring that all passengers are carrying not only their tickets but also the relevant COVID certificates. To help make the process of verifying 3G status easier for public transport operators, IVU updated its in-house IVU.ticket software to allow all certificates to be scanned and validated on board vehicles. As a result, drivers and ticket inspectors can check both tickets and 3G certificates with their existing hardware, such as on-board computers and hand-held devices.

To make it easier for dispatch managers to verify 3G status at work, transport companies can also easily configure the personnel dispatch solution IVU.crew themselves so that all COVID certificates can be consistently checked and managed.

Employees

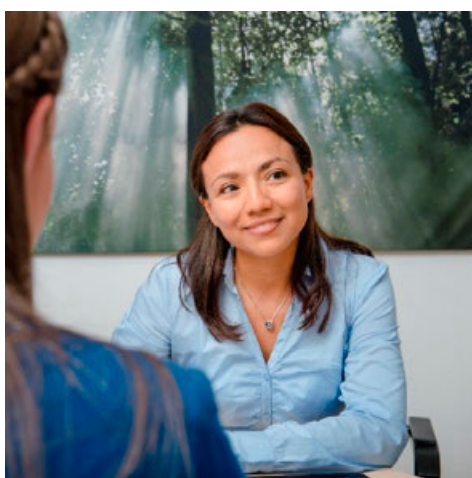
Complex systems require brilliant minds. IVU provides meaningful work in the exciting area of public transport – the key factor for sustainable transport. To this end, IVU's employees develop ideas and products, write software, implement projects at our customers, advise transport companies and provide round the clock worldwide support where necessary. Their expertise is a key factor in our success. We ensure a positive and respectful working environment at all times so that our employees feel at home at IVU.

Despite the ongoing effects of the coronavirus pandemic, IVU's growth prospects are good. That is why we continued our intensive recruiting programme in the 2021 financial year in order to recruit suitable software and project engineers for IVU. Despite the difficult circumstances, we succeeded in attracting more than 100 new colleagues last year. IVU now has 779 employees across the Group (corresponding to a personnel capacity of 621 FTE).

As well as recruitment, internal professional development is also hugely important to IVU. In a special management trainee program, we prepare promising candidates to take on management responsibility. For the first time, we also offered a programme for "talented specialist staff" with the aim of bolstering careers as subject specialists at IVU and establishing an attractive alternative to the management track.

Over the last two years, we have also learnt to appreciate employee participation in the form of shares and this is well received internally. Almost all colleagues are now IVU shareholders.





Finding and encouraging talented staff:

Our recruiters regularly attend careers fairs to recruit specialists for IVU. Internally, the new specialist staff programme boosts subject specialist career paths, retaining key knowledge in the company.

IVU share, key figures

IVU SHARE IN COMPARISON

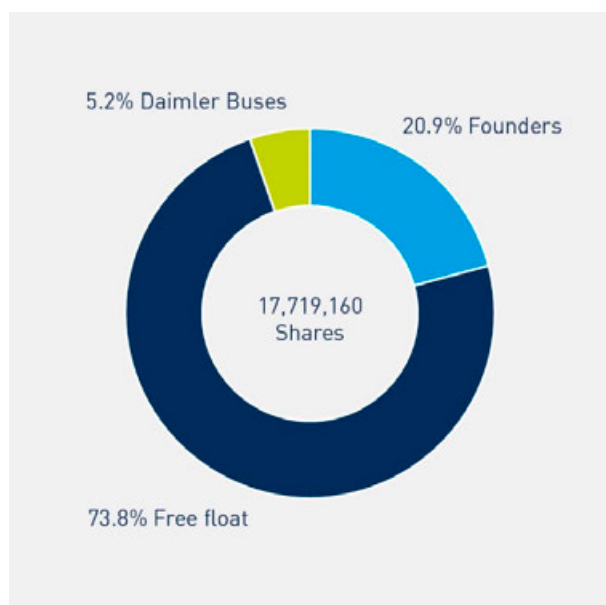
JAN 2008 – MAR 2022



MAR 2021 – MAR 2022



SHAREHOLDER STRUCTURE AS AT 31 DECEMBER 2021

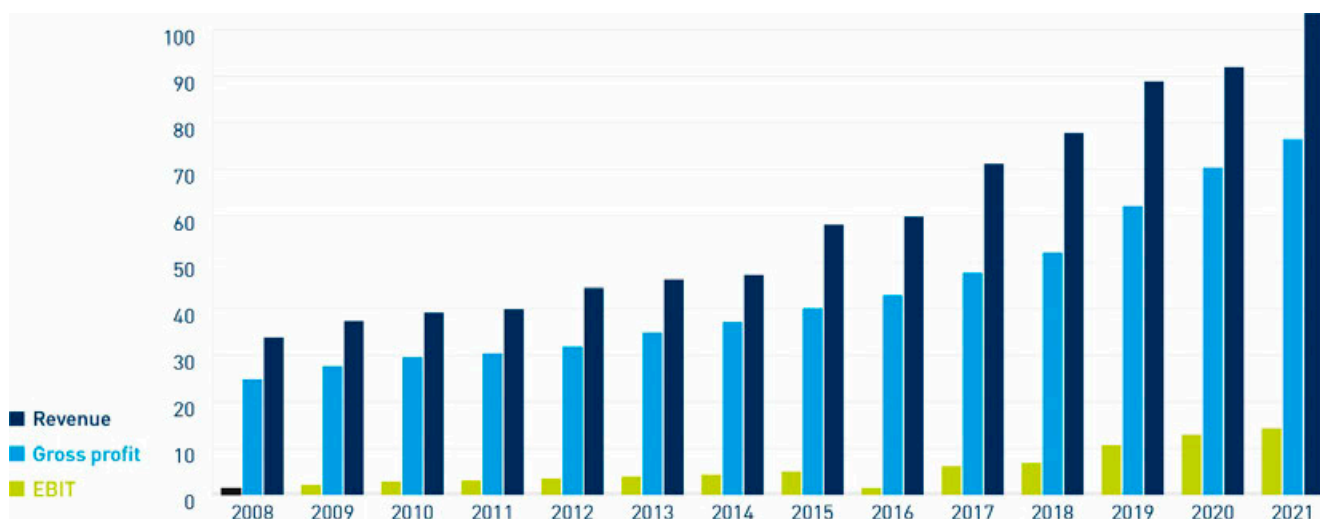


SHARES HELD BY BOARDMEMBERS AS AT 31 DECEMBER 2021

Executive Board	Shares
Martin Müller-Elschner	239,824
Matthias Rust	21,905
Leon Struijk	25,000
Executive Board Total	286,729
Supervisory Board	
Prof. Herbert Sonntag	866,000
Ute Witt	2,000
Prof. Barbara Lenz	1,490
Benedikt Woelki	172
Axel Zimmermann	1,101
Supervisory Board Total	870,763
BOARD MEMBERS TOTAL	1,157,492

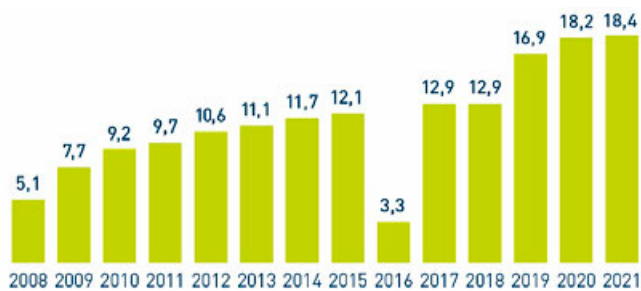
KEY FIGURES 2008-2021

IN € MILLION



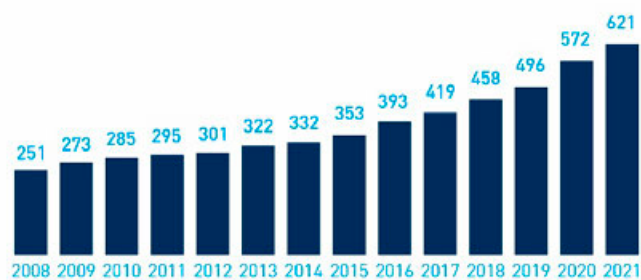
EFFICIENCY 2008-2021

EBIT/GROSS PROFIT IN %



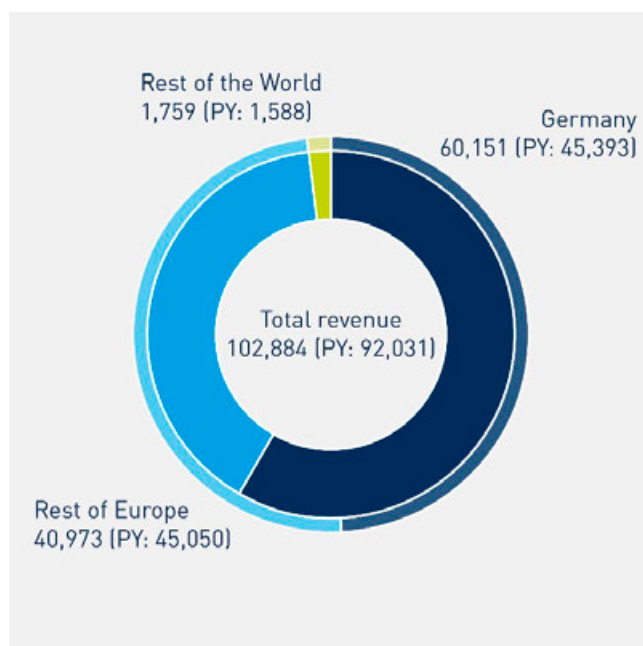
FULL TIME EQUIVALENTS 2008-2021

AS ANNUAL AVERAGE



REVENUE 2021

IN € THOUSAND



GROUP MANAGEMENT REPORT





Group Management Report for the 2021 financial year

A. GROUP FUNDAMENTALS

Group structure and products

IVU develops, installs, maintains and operates integrated IT solutions for buses and trains. The standard products IVU.suite and IVU.rail cover the whole spectrum of planning, operation and quality assurance for public transport and railway companies. IVU's software and hardware systems create timetables, plan and optimise the deployment of buses and trains, dispatch drivers and vehicles, control and monitor the operation of vehicle fleets, sell tickets, inform passengers, cash up takings and prepare statistics.

Digital solutions by IVU help transport companies standardise their entire operational workflows and provide forward-looking services for the transport of tomorrow. From planning and dispatch of resources, operational control, ticketing, passenger information or performance assessment – IVU's range of products create a consistent digital workflow.

The integrated approach of IVU systems is a particular advantage. In the context of the digitalisation of public transport, it opens up opportunities to link up departments, use data extensively and optimise and accelerate workflows on a long-term basis. This way, IVU's products increase both the efficiency and quality of public transport.

IVU serves customers worldwide from its locations in Berlin (headquarters), Aachen, Frankfurt/Main (Germany), Rome (Italy), Olten (Switzerland), Vienna (Austria), Utrecht (Netherlands), Paris (France), Birmingham (Great Britain), Budapest (Hungary), Istanbul (Turkey), New York (US), Montréal (Canada), Santiago de Chile (Chile) and Hanoi (Vietnam). The core markets of IVU are Germany, Italy and Switzerland as well as other European countries and railway companies worldwide.

Strategy and management

The corporate strategy of IVU is aimed at continued, financially sustainable growth, with a particular focus on expanding its market position in the core markets and neighbouring regions of Europe, and increasing recurring revenue to further consolidate IVU's economic stability.

The foundation for IVU's growth lies with its sophisticated products, which it develops and implements in cooperation and coordination with its customers. There is considerable focus on maintaining product standards so that as many customers as possible work with identical solutions. The aim here is to largely integrate the product portfolio for the two customer groups (public transport companies/associations and railways), providing users with consistent workflows across all operational areas in one system.

In order to further expand its position in the German-speaking domestic market, IVU relies on good customer contacts and active customer support. Sales is increasingly taking advantage of the opportunities to up-sell and cross-sell products so that IVU can be the first point of call for its customers when implementing new requirements. Further growth will be generated by the targeted acquisition of new customers in the neighbouring countries within Europe. In the railway market, IVU sees all global railway companies as potential customers.

Recurring revenue is expected to continue to grow at an above average rate, or at least proportionally to consolidated revenue. Alongside the maintenance business and support, additional services relating to IVU products, such as training and consulting services, and the expansion of the cloud business will serve as growth drivers. The focus is on marketing the IVU.cloud in order to gain further customers where IVU can operate its own systems.

IVU's management systems are designed to provide a constant up-to-date picture of the economic and

financial situation of the Group and to help it in achieving its strategic objectives. The key performance indicators include the development of revenue as an indicator of the growth rate, gross profit (total operating performance plus other operating income and less cost of materials) as an indicator of own value added, and operating profit (EBIT) as an indicator of profitability.

Research and development

IVU has been developing complex software solutions for public transport for over 45 years. Continued development and involvement in important research and standardisation projects constantly improve the IVU.suite products. Close collaboration with transport companies and partners in industry and science generates considerable impetus for new functionalities and application models of IVU systems.

IVU maintains excellent contacts with technical colleges and universities, including Technical University of Berlin, Ilmenau University of Technology, Technical University of Darmstadt, RWTH Aachen University, Karlsruhe Institute of Technology, University Kassel and the Technical University of Applied Sciences Wildau. The company cooperates intensively and successfully with these education establishments in the area of research and teaching.

The research projects started in previous years with MaaS L.A.B.S., U-hoch-3 and LOGIN continued in the past financial year. IVU also participated in two other research projects in 2021. For example, IVU is helping create a new staff costs index for Germany's regional rail passenger transport so that increases in actual personnel expenses in regional rail passenger transport can be presented as realistically as possible for new contracts. Between 2016 and 2020, these costs rose far more rapidly than the transport sector's official index. IVU is also involved in the joint project "OPENER next", which aims to create a standardised record of accessibility at stops, ensuring more inclusive mobility services for everyone, regardless of physical disabilities.

In the past year, IVU invested €6.0 million in R&D. Most of IVU's research and development work is carried out within the regular product and release cycles. As previously, these development costs are not capitalised.

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 very well-trained software and project engineers with sector-specific specialist knowledge. Their qualifications and motivation are a key factor of lasting success and further growth. Therefore, most IVU employees are graduates. In 2021, the proportion of academics was around 78%.

Despite the pandemic, the labour market for IT specialists remained challenging last year. The fact that the required employees were again recruited in 2021 testifies to IVU's good reputation as an employer and the positive working environment at the company. As at 31 December 2021, IVU had a total workforce of 779 employees, including part-time employees and students (2020: 735). The average personnel capacity increased by 8.6% to 621 FTE (2020: 572) and personnel expenses climbed 7.8% to €49.8 million (2020: €46.2 million). In general, IVU operates in a high-salary environment.

	2021	2020	Change
Number of employees as at 31 December	779	735	+6%
Average full-time equivalents (FTE)	621	572	+9%

Ongoing training

Only those who are constantly at the forefront of technical development are equipped to develop and improve complex IT systems. For this reason, IVU provides its employees with ongoing further training opportunities. This has led to the development of an active knowledge culture within the company. One example of this is IVU's in-house Developer School, which took place virtually in 2021. It gives software engineers at IVU the opportunity to engage collectively with their colleagues with regard to new technologies and further developments in their programming environments. Another conference for IVU project engineers took place virtually in the autumn.

Growth at IVU brings with it an increasing demand for management personnel. IVU continued to run an internal management trainee programme to prepare suitable candidates for future management roles in 2021. For the first time, we also offered a "programme for talented specialist staff" with the aim of bolstering

careers as subject specialists at IVU and establishing an attractive alternative to the management track. This training is designed to retain valuable knowledge in the company and specifically support particularly talented staff.

Recruitment measures

To attract specialists and graduates, IVU regularly attends careers fairs. Only four virtual fairs were held in the 2020 financial year on account of the pandemic. Last year, five took place in person and eight online. We plan to continue attending promising careers fairs with our recruiters in the future in order to recruit specialists for IVU.

Cooperation with various universities also plays a key role in HR marketing. 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. To this end, IVU also makes use of the good contacts with its research partners.

Qualification programme

Fast and extensive qualification of new employees is the main ingredient in the success of numerous IVU projects. IVU operates a structured induction programme. In intensive training courses, the future software and project engineers at the German and international offices acquire the basic knowledge they need in order to perform their tasks successfully. The seminars cover topics such as how public transport works, individual IVU products and the overall system and the requirements for customer-oriented project management. This brings new employees up to speed quickly and enables them to take on their own projects in a short time frame. A total of six virtual induction programmes took place for the various areas in 2021.

Corporate culture

IVU is characterised by an open corporate culture. We ensure a positive and respectful working environment at all times so that our employees feel at home. In 2021, for example, 13 student trainees joined IVU on fixed, permanent contracts after the end of their study programmes. This highlights IVU's appeal as an employer and also demonstrates that IVU invests heavily

in its employees and encourages their professional development, ensuring they stay at the company. Diversity is hugely important to IVU. People from a total of 45 nations work at the various locations. The proportion of women is 30%. It is therefore well above the proportion of female graduates in the relevant STEM subjects, which averages 21.5% (2020).

B. SUMMARISED NON-FINANCIAL STATEMENT¹

CSR Strategy

Basic information

Demonstrating a sense of responsibility is part of IVU's corporate image: responsibility toward its customers and towards its employees and the community in which IVU operates. Non-financial performance aspects – which have existed at the company in one form or another for many years – make a notable contribution to the company's long-term business success.

In 2018, assisted by an external consultant, IVU systematised the aspects stipulated by Section 289c(2) of the German Commercial Code in the areas of environmental, employee and social matters, observing human rights and combating corruption and bribery. Since then, IVU has reported annually on these activities for the respective financial year. This statement relates to the period from 1 January to 31 December 2021.

The non-financial statement describes IVU's non-financial concepts and processes. The *CSR-Richtlinie-Umsetzungsgesetz* (CSR-RUG – German CSR Directive Implementation Act) does not stipulate any particular standard for this. Companies can use national, European or international frameworks. In the latest non-financial reports, IVU recorded and systematised its relevant activities and reported on these in greater detail and on a more permanent basis. The company is currently looking into whether a non-financial report for subsequent years should be prepared in accordance with one of the common reporting standards (German Sustainability Code or Global Reporting Initiative).

IVU is following the ongoing discussions regarding the development of the non-financial reporting obligation and the draft Corporate Sustainability Reporting

¹ The combined non-financial statement comprises the declaration of IVU AG in accordance with §§ 289 b-e HGB and the non-financial Group declaration in accordance with §§ 315 b-c in conjunction with

§§ 289 c-e HGB. §§ 289 c-e HGB and has not been audited by the auditor.

Directive (CSRD) presented by the European Commission in 2021.

Material stakeholders and topics

IVU has the following material stakeholders: customers, project partners, employees, applicants and investors. Other stakeholder groups include authorities, associations and the general public. In 2018, IVU also used a materiality matrix to define topics to be highlighted within the legally prescribed fields for the first time. Materiality is derived from the overlap between stakeholder expectations and the relevance of the topics for IVU; it is based on the company's own assessments and on regular feedback that IVU's managers receive from most of the stakeholders. The Executive Board reappraised the materiality matrix in 2020.

Material topics for IVU under environmental matters include "promoting environmentally friendly mobility", "assuming ecological responsibility", "cooperating with sustainable suppliers" and "conserving resources". Under employee matters, material topics mainly include "ensuring work-life balance", "preserving equal opportunities", and "offering employees opportunities for continued development". Topics that fall under social matters include "respecting customer concerns", "protecting human rights", "supporting local communities" and "combating corruption and bribery".

Responsibility of the CEO

For IVU, the company's responsibility in the various areas falls within the remit of the CEO. This reflects the great importance that IVU attaches to the topic. Furthermore, the CEO ensures that the topics are regularly the subject of Executive Board meetings and once annually at the two-day workshop attended by all company managers.

The CEO receives important stimuli for shaping the social responsibility at IVU from, among others, the Advisory Board at IVU, which is made up of respected managers and experts from the sector. Contacts into the transport industry as well as the participation in associations and committees also provide impulses. Moreover, the open corporate culture allows important issues raised by employees to reach the managers and the Executive Board of the company quickly.

Environmental responsibility

Promoting environmentally friendly mobility

IVU products make a significant contribution to climate protection. They promote the efficient operation of buses and trains and thus contribute significantly to the reduction of greenhouse gas emissions that harm the climate. In addition, they increase the attractiveness of public transport and raise the share of traffic volume accounted for by environmentally friendly alternatives. During its meetings, the Executive Board liaises with key stakeholders to regularly assess the extent to which IVU is meeting this requirement.

Public Transport

Public transport with buses and trains is one of the most environmentally friendly modes of transport, in terms of emissions of both greenhouse gases and pollutants – far ahead of motorised private transport and air transport. Public transport use was growing in Germany year after year until the pandemic. In 2019, the last full year before the outbreak of the pandemic, the members of the Association of German Transport Companies provided transport services equating to 137.3 billion passenger kilometres. Nearly 10.6 billion passengers travelled by bus and train, thereby saving around 10.7 million tonnes of carbon dioxide.

IVU systems help transport companies in Germany, Europe and worldwide to keep public transport services running smoothly and efficiently and make them appeal to as many passengers as possible. At the same time, IVU.suite products help transport companies to reduce their climate emissions in the long term.

Product	Area	Environmental impact
IVU.run	Vehicle scheduling	Efficient schedules, reduction of non-revenue trips
IVU.duty	Duty scheduling	Balanced duty schedules
IVU.vehicle	Vehicle dispatch	Optimal allocation of energy-saving vehicles
IVU.crew	Personnel dispatch	Fair allocation of duties
IVU.pad	Personnel dispatch	Submission of duty requests, avoidance of journeys
IVU.fleet	Fleet management	Vehicle surveillance and traffic intervention
IVU.cockpit	Fleet management	Driver assistance with information about efficient driving
IVU.control	Evaluation	Performance analysis reveals potential for improvement

Electric mobility

IVU.suite also contains numerous functions that have been specially designed for the deployment of electric buses. The system knows the properties of the vehicles, the charging options and the route situations, and assists with suitable suggestions. This helps to maximise the efficiency of electric buses and deploy personnel optimally. There is a particular focus on integrated management: the system combines electric buses and those with combustion engines as mixed fleets in a single user interface and enables joint planning, dispatch, fleet management and passenger information.

In the 2021 reporting year, IVU carried out several projects involving the planning and management of electric buses. In Wiesbaden, for example, IVU supplies the entire IVU.suite for electric buses with integrated charging and depot management to ESWE Verkehr. Duisburger Verkehrsbetriebe DVG and the transport company Ludwigslust-Parchim VLP also began using IVU.suite's electric bus solutions this year. The Dutch transport company Qbuzz implemented IVU's integrated depot management system for more than 400 diesel and electric buses in 2019. In 2020, the Berlin transport operator BVG ordered IVU optimisation tools to make the most efficient use of its growing fleet of electric buses.

EU Taxonomy: status quo

The European Parliament and European Council created the EU Taxonomy, a Europe-wide classification system for environmentally sustainable business practices. The aim of this is to gradually establish a standardised framework to classify companies in the

EU by their environmental impact and allow customers, financial backers and investors to compare them. One objective is to direct cash flows more towards sustainable investments.

Under the EU Taxonomy, business practices are environmentally sustainable if they make a significant contribution to one of the following six environmental objectives. This list is not exhaustive and it will be amended and additions made in the next few years.

- Climate change mitigation
- Climate change adaptation
- The sustainable use and protection of water and marine resources
- The transition to a circular economy
- Pollution prevention and control
- The protection and restoration of biodiversity and ecosystems

As well as making a significant contribution to one of these objectives, environmentally sustainable activities must also meet three other requirements: They must do no significant harm to any of the other environmental objectives, they must use scientific technical evaluation criteria to provide evidence of their contribution and meet certain minimum standards for social and governance aspects.

The European Commission had defined only the first two objectives in detail by the end of 2021. Nonetheless, companies that are required to submit a non-financial report are obliged under a delegated act to make disclosures in terms of the new EU Taxonomy for the 2021 financial year. This also applies to IVU. It must disclose whether and to what extent its activities are environmentally sustainable within the meaning of the Taxonomy. The key figures for this are the relevant shares of revenue, investment expenditure (CapEx) and operating expenses (OpEx).

Taxonomy-compliant activities at IVU

IVU familiarised itself with the new EU Taxonomy system early on and monitors the formulation of objectives and criteria as they are developed. For this report, IVU has applied the Taxonomy in the version at the end of 2021 to its business activities.

The Executive Board has identified the first of the six objectives – climate change mitigation – as the objective to which IVU makes a significant contribution: Firstly, IVU's systems are what make modern public transport and the use of electric buses possible in the first place. Secondly, they increase their appeal and

thus play a key role in getting people to switch from cars to travelling by rail or bus. Strengthening and expanding public transport is central to national and international climate change mitigation efforts.

However, IVU's specific activity is not yet included in the Taxonomy system. The activities listed under 8.1 and 8.2 that count towards the climate change mitigation objective in the "information and communication" sector do not correspond to IVU's business. Under formal application of the Taxonomy, this means that IVU does not, by definition, recognise any Taxonomy-eligible revenue for the 2021 financial year. An initial screening of investments and operating expenses did not find any significant Taxonomy-eligible items in these areas. This review will be continued this year.

Nonetheless, the Executive Board believes that IVU's systems make an important contribution to climate change mitigation. Accordingly, it intends to inform the expert committee responsible for further additions to the Taxonomy of the links between IVU's specific activities and the Taxonomy. Companies whose potentially sustainable activities are not yet included in the classification system are expressly requested to make these statements. The company will report on IVU's corresponding initiatives/the results of these in its 2022 annual report.

As well as a potential direct contribution, IVU's activities may also be considered "enabling activities" under the EU Taxonomy. These are economic activities that allow other activities to make a significant contribution to one of the objectives defined. The Executive Board believes that IVU's systems facilitate the "urban and suburban transport, road passenger transport" activity listed under 6.3 of the Taxonomy. However, categorising an activity as "enabling" requires that this is explicitly listed in the Taxonomy. Unfortunately, this is not currently the case. The IVU Executive Board also wishes to inform the expert committee responsible for the Taxonomy of this.

Assuming ecological responsibility

As a company whose products promote sustainability and resource efficiency, IVU strives to reduce the carbon footprint of both the company and its employees, including in its business operations.

Carbon footprint

IVU will arrange for its carbon footprint to be calculated externally for the first time for 2021. The aim of this is to identify major sources of emissions at the

company and highlight where there is potential to reduce these. The result will be published in the next annual report.

Regular energy audit

As an eco-friendly company, IVU has taken responsibility for its own greenhouse gas emissions for many years. The company undergoes regular energy audits in line with DIN EN 16247-1 with the aim of minimising its energy consumption and therefore the greenhouse gas emissions generated by its own corporate activities. In this way, it strives to use electricity, gas and oil as frugally as possible.

Energy-efficient servers

IVU also works with certified IT service providers to operate its service infrastructure for its own as well as its customers' hosted systems. IVU's hosting provider implements extensive energy management systems at its data centres in order to reduce power consumption. The energy consumption of all facilities and systems is optimised. The servers are powered exclusively with electricity from renewable energy sources that are extracted without causing CO2 emissions or radioactive waste.

Reduction in business travel

To limit the need for business travel, all branches are equipped with modern video conference systems that facilitate meetings involving different locations. Nevertheless, trips are still necessary to implement projects on location, conduct training and support customers.

Air travel in particular is associated with serious consequences for the environment and climate due to the high CO2 emissions. Accordingly, IVU has successfully intensified its efforts to reduce air travel. The figures for 2021 are not comparable with previous years' figures on account of the travel restrictions during the coronavirus pandemic.

Since the start of 2018, IVU has offset unavoidable business air travel by using the services of the non-profit organisation atmosfair. With these payments, the organisation supports various climate protection projects in the fields of renewable energies and energy efficiency.

Cooperating with sustainable suppliers

As a software company, IVU does not manufacture any devices. Accordingly, IVU does not consume any raw materials for the production of hardware. When selecting suppliers, IVU takes care to ensure that they

comply with the fundamental standards of resource-conserving production.

Devices that IVU sells under its own name, such as the on-board computers IVU.box and IVU.ticket.box, are manufactured at a partner company based in Germany. As a member of the German Electrical and Electronic Manufacturers' Association (ZVEI), the company makes a commitment to social responsibility and voluntarily adopts the association's Code of Conduct. The manufacturer of the IVU devices is also subject to the Restriction of Hazardous Substances Directive (RoHS), and within the meaning of Regulation (EC) No. 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) is classed as "downstream user". Its products do not release any chemicals under normal and reasonably foreseeable conditions.

Conserving resources

The only area where IVU consumes a significant amount of resources is electricity. To limit this, the Executive Board regularly assesses the resource management practices at the various locations.

Electricity

The most important energy source in the company in 2021 was electricity. At its development location in Berlin, IVU makes exclusive use of electricity generated from renewable energy sources. At the Aachen location, electricity is supplied by the landlord.

According to the latest energy audit, the main consumer in Berlin was lighting, with a share of around 57%. Workstations accounted for 29% of electricity consumption. The situation was different at the Aachen location. There, workstations were the main consumer, accounting for 60%. Lighting accounted for around 21% of energy consumption here.

Consumer Location	Berlin	Aachen
Workstations	29.0%	60.0%
Lighting	56.8%	21.4%
Test laboratory		18.6%
Other	14.2%	

To further reduce energy consumption at the locations, IVU is switching to light sources fitted with LEDs. Thanks to their very high efficiency and luminosity as well as their significantly longer service life compared with fluorescent tubes, this measure will have a lasting impact on the company's resource

consumption. As a result, we expect to reduce our electricity consumption for lighting purposes by over 40% in the medium term.

Recycling

IVU also takes steps to ensure that it keeps the other environmental impacts of its operations as low as possible. Consumables such as plastic and cardboard packaging waste are separated on-site and recycled. At all its locations, IVU collects electrical waste such as screens, bulbs, headphones and other electrical and electronic small appliances into special waste containers that are then handed over to be recycled. IVU works with specialist service providers who dispose of the devices professionally and recover used PC hardware before passing it on to the second-hand market.

Responsibility for employees

Ensuring work-life balance

The well-being of employees is one of the most important factors for a healthy working environment. The special culture at IVU is based not least on the extensive freedoms and rights of its employees. It is a stated goal of the company management to maintain and strengthen these rights.

The Executive Board regularly conducts employee surveys to provide an indication of whether it is achieving this aim. A survey was performed in 2020 as well. In the "Great Place to Work" survey, IVU scores way above average across all the relevant assessment criteria – credibility, respect, fairness, pride, team spirit – and in doing so outperformed its own top scores from 2016. 95% of employees praise the friendly working environment, and over 90% enjoy coming to work. A whopping 96% appreciate the available opportunities to take time off.

Flexible working time models

Different situations in life cannot be forced into a standardised framework. This is why IVU offers its employees flexible working time models. The relevant provisions for the German IVU locations are documented in a central company agreement (GBV), which was jointly developed by the management and the general works council of IVU.

IVU champions remote working and requests to work part time and is open to finding appropriate solutions to suit individual circumstances. As at 31 December

2021, a total 135 employees worked part time (student assistants not included).

Free time is important

IVU respects and encourages the free time of its employees. It allows them to recharge their batteries and reduce stress levels, and it promotes their creativity. This is particularly true for holidays. For this reason, IVU significantly exceeds the minimum legal requirement by granting all employees working a 5-day week a total of 30 holiday days per year. Since even 30 days of holidays are sometimes not enough for certain plans, IVU has also established a timeout model that allows employees to take up to three months off.

The same applies to mothers and fathers: They can also return to their workplace without difficulty after their parental leave. In addition, IVU supports families with a childcare allowance towards the cost of accommodation, care and meals for children below school age. Parents at IVU are also entitled to paid leave of absence of up to five days per year if they have to stay at home with a sick child.

Health – a valuable asset

IVU also guarantees the welfare of its employees in the workplace. An occupational safety commission meets four times during the year to discuss the latest developments in the area of health and safety at work. At an annual safety training course, employees learn everything they need to know about everyday work routines that promote a healthy lifestyle.

To promote the general health of its employees, IVU offers numerous health and fitness classes. An “active break” regularly takes place at the Berlin and Aachen locations, where a health instructor takes the participating employees through a series of movement and stretching exercises and gives them tips on personal fitness in the office. The active break continued to take place – as a video chat – during the lockdown.

As part of the company reintegration management, IVU supports employees who were unable to work for more than six weeks in a single year due to illness when they return to their workplace by way of a structured process.

Preserving equal opportunities

IVU is an equal-opportunity employer. Employees of any gender, nationality or sexual orientation either with or without disabilities are not only welcome at IVU but enjoy the same opportunities to develop their

career within the company. IVU is convinced that diversity fosters a productive and innovation-friendly working environment. Comparisons are made with the relevant STEM study area of information technology to provide a performance indicator for the proportion of women at the company, and the figure may not fall below this benchmark.

Proportion of women

Compared with the proportion of female graduates in the STEM subject computer science relevant to IVU of 21.5% (in 2020), IVU employs an above-average number of women throughout the company: As at 31 December 2021, the proportion of women across all departments was 30%. Of the new hires at IVU in the past year, 33% were women.

IVU is working to increase the proportion of women in management as well. The six-person Supervisory Board currently has two female members, both of whom were appointed by the Annual General Meeting. A gender quota that is binding in law applies to the Supervisory Board of IVU, according to which the proportion of women and men must each amount to 30%. Following the last election of the Supervisory Board members by the Annual General Meeting on 29 May 2019, two women, Ms Ute Witt and Prof. Barbara Lenz are now members of the Supervisory Board. The composition has not changed since then.

The Executive Board still comprises three men. The Supervisory Board is aiming for at least a 30% proportion of women within the legal deadline. The target for women to make up at least 15% of executives in the first two management levels below the Executive Board was achieved. IVU intends to increase their share further and is therefore selectively encouraging qualified women to take on leadership roles.

The low numbers of women in mathematical and scientific professions often proves to be an obstacle to a higher proportion of women in the company. To encourage more women and girls to take an interest in careers in the STEM area over the long term, IVU participates each year in the nationwide Girls' Day. This programme gives young schoolgirls an initial insight into the world of work and the tasks in an IT company. We also enable girls who show an interest to complete prolonged pupil internships during which they can engage more intensively with individual tasks. Unfortunately, because of the coronavirus pandemic, the event did not take place in the last two years.

Non-discriminatory working environment

IVU is proud of its non-discriminatory working environment. IVU also presents itself as an open employer when recruiting staff. For this reason, we have long been cooperating with the Sticks & Stones recruiting fair, the largest event of its kind in Europe for lesbian, gay, bisexual, transsexual, transgender, intersexual and queer persons. This was held virtually last year and was attended by IVU.

Age structure (without students)	31 Dec 2021	31 Dec 2020
< 30	114	108
30-50	442	398
> 50	112	111
TOTAL	668	617

Offering employees opportunities for continued development

An innovation-centric technology company like IVU thrives on the professional expertise of its employees. It is vital to stay up to date with the latest technology and regularly learn about new technologies and processes – and not just in the development areas. IVU therefore offers its employees encouragement and helps them to further their own professional development. For this purpose, the company organises various programmes that meet the diverse training requirements of its employees. The key performance indicator for the Executive Board here is the Group-wide training ratio.

Junior staff

In the context of employee development IVU already set up a dedicated trainee programme for managers several years ago. It uses targeted training courses to prepare prospective team leaders to take on management duties. Last year, a total of 3 women and 7 men took part in the programme.

Training opportunities

Internal short training courses give employees an in-depth introduction to a specific subject area. The IVU training catalogue also includes numerous external training offerings, such as employee leadership for managers, an introduction to the rail system, which is offered in conjunction with TU Berlin, as well as training courses for developers and language courses. Training in 2021 also covered soft skills, negotiations, modern and agile project management, new technologies and modern ways of working.

Social responsibility

Respecting customer concerns

Customer satisfaction is right at the heart of IVU's business activities. It is a self-professed goal of management to work closely with customers and see projects safely through to the end. To ensure that it achieves this goal, in 2012 IVU set up a quality management system in accordance with DIN EN ISO 9001, which sets out processes, result types and roles. In the reporting year, the internationally recognised certification body DeuZert® Deutsche Zertifizierung in Bildung und Wirtschaft GmbH confirmed that IVU's information security management system meets all requirements under DIN EN ISO/IEC 27001:2013. IVU intends to continue meeting all international standards in the future so as to ensure the best possible protection of sensitive data and guarantee its customers maximum security.

Quality and information security

In its policies, IVU commits to upholding reputable and binding business practices at all times. IVU's management system revolves around core process descriptions for sales, development, cloud, project, support and supplier management. Additional descriptions cover product management, quote generation, human resources and IT services. This is how IVU ensures that internal processes follow clear guidelines and that customers can rely on standardised processes. IVU's integrated management system is audited for quality in accordance with ISO 9001 and information security in accordance with ISO 9001 is audited each year by an external certification body and thus undergo continuous improvement.

Customer satisfaction

IVU regularly conducts customer surveys to measure customer satisfaction. In the survey, IVU asks customers about their experience of working with IVU, about the quality of their products and services, and about their satisfaction with IVU support. Customers also have the option of suggesting areas for improvement. The survey results are evaluated and incorporated into the work of development, project areas and support.

Regular collaboration in user groups is another means of generating inspiration. IVU system users are given the chance to talk to each other and to IVU developers and make an active contribution to the development of IVU products. In addition to discussing the particular operational features, one specific aim is to identify

future requirements at an early stage and prepare the system for forthcoming challenges.

Protecting human rights

In the context of the business activities of IVU, the adherence to human rights is our top priority. This applies in equal measure to our own projects as well as to products manufactured or supplied on behalf of IVU. The Executive Board is responsible for ensuring that the company observes and respects human rights. When selecting project partners, IVU takes care to ensure that the principles of human rights are upheld.

Supporting local communities

IVU sees itself as an active part of society. Our stated aim is to bring the local community forward and work towards the sustainable cohabitation of humankind. This is expressed in particular through IVU's products, which enable transport companies around the world to deliver straightforward and resource-conserving mobility. In the local and regional community, IVU is an active member of the association Förderverein Berliner Bach Akademie e.V.

Shareholder Participation

As a listed company, IVU also contributes through its business activities to the growth in society's prosperity. In this capacity, it must automatically navigate and balance the conflicting priorities of its key stakeholders: customers, employees, shareholders, suppliers and distributors. The Executive Board manages IVU in way that gives appropriate consideration to all interests, ensures that all laws and regulations are adhered to while at the same time respecting and maintaining the unique corporate culture and associated values.

To enable shareholders to participate in the company's business performance, IVU strives to maintain a sustainable dividend policy, insofar as the financial situation permits.

Taxes

IVU believes that it has a responsibility to its shareholders to limit taxes and expenses to the legally required level. At the same time, IVU is aware of its social responsibility and, by paying taxes, plays its part in funding the community as well as maintaining and expanding infrastructure.

Through IVU AG's presence and tax contributions, we are making a commitment to the German location and to the branches in Aachen and Berlin in particular.

This sense of responsibility prompts us to follow a conservative tax strategy. The selection of international locations is determined by business considerations and not with a view to tax optimisation. On the contrary, these locations are necessary for our operational business activities in the countries in question. We take our responsibility seriously here, too, by complying with local tax regulations and paying the relevant taxes.

IVU does not operate aggressive tax structures to avoid paying taxes. However, we do consider tax factors when making key business decisions to take account of their impact on the budget in a reliable manner.

Our aim is to hold a proactive, transparent, professional, polite and expedient dialogue at all times with tax authorities at home and abroad and maintain a good working relationship with these authorities, i.e. ensuring compliance.

Combating corruption and bribery

Exerting political influence

IVU does not actively exert political influence. Members of the Executive Board occasionally take part in political delegations to represent the business locations Germany and the Land of Berlin overseas. They do not exert any influence in this capacity. There were no delegation trips during the reporting year.

IVU is also represented in a range of national and international associations that promote public transport and information technology both politically and socially. A list of memberships can be found on the IVU website at www.ivu.com/company.

Conduct in line with regulations and standards

IVU's work and procedural instructions are intended to ensure that employees comply with the regulations and standards. To this end, the Executive Board and Supervisory Board of IVU submitted the compliance declaration regarding the adherence to the German Corporate Governance Code on 24 February 2022.

In fact, all relevant corporate processes at IVU are defined and are documented. Important functions such as quotation management, purchasing and accounting are centralized in Berlin for all subsidiaries. This guarantees that these processes are highly transparent.

In accordance with the European General Data Protection Regulation (GDPR), which came into force on 25 May 2016 and must be applied since 25 May 2018, IVU

has implemented numerous technical and organisational measures to protect personal data in a standardised manner for the entire company. IVU always applies the strictest rules in each individual country. IVU has compiled comprehensive documentation for this purpose. IVU requires its data-processing service providers to adhere to the regulatory and company requirements for the protection of personal data. IVU has appointed its employee Joachim Nottebaum as Data Protection Officer. He can be contacted at the e-mail address datenschutzbeauftragter@ivu.de and is available as a contact person for all persons within and outside the company who may have questions and suggestions relating to data protection.

C. ECONOMIC REPORT

Industry-related conditions

IVU operates in an overall dynamic, fast-growing market environment dominated by the three megatrends of urbanisation, mobility and digitalisation. While the coronavirus pandemic has directly affected public transport in a large number of countries, no reliable claims can be made at present as to the effects on long-term mobility trends. The long-term impact of the war in Ukraine on European local and long-haul transport cannot be assessed at present.

Provided the trends of previous years continue once the pandemic has abated and despite the war in Ukraine, cities worldwide face the challenge of efficiently managing the growing mobility requirements of an ever-growing number of people. Car traffic would steadily decline. According to a study by the Kantar market research institute from 2019, by 2030 only around 46% of all journeys within cities would be made by car, while around 49% of journeys would be made by public transport, bicycle or on foot.² Digitalisation enables transport operators and local authorities to meet this high demand and improve their services.

As rail traffic has steadily increased in the past, so too has investment in railways. The World Rail Market Study 2020–2025 by UNIFE, the Association of the European Rail Industry, projects that the railway market will continue to grow in the medium and long term in spite of the coronavirus pandemic. It also anticipates

that the demand for rail traffic control systems – a category that IVU solutions also fall under – will grow by 2.7% every year. Between 2023 and 2025, the market volume will be around €19.7 billion a year.³

IVU also benefits from this. Demand for IVU.rail, our software solution developed especially for railways, remains strong, with ten installations completed or commissioned with European state railways. Last year, LTG Link, the passenger transport subsidiary of the Lithuanian national railway, opted for the IVU complete system including IVU.cloud. IVU.rail uses sophisticated mathematical algorithms for optimising the highly complex timetabling of trains, thus helping railway companies to save valuable resources.

IVU is the market leader in the German railway market with its standard solution. According to the Competitor Report Railways 2021/22 by mofair e.V., the alliance for fair competition in rail passenger transport, the four largest regional railway companies DB Regio, Transdev, Netinera and Abellio have a market share of around 79%. They all rely on IVU.rail for the planning and dispatching of vehicles and personnel. They are joined by IVU's customers HLB, AVG, National Express, AKN and SWEG, who also serve about 8% of the German volume of regional public transport traffic.⁴

IVU has traditionally enjoyed great success in Europe, particularly in the German-speaking region. The company is able to build on its high level of recognition and strong networks here. The positive development of public transport also benefits IVU. According to the industry associations, the number of passengers in Germany alone has risen continuously in the past. For example, the Association of German Transport Companies (VDV) counted more than 10.413 billion passengers for 2019.⁵

The coronavirus pandemic has halted this trend. Due to the official restrictions and changes in residents' behaviour, German transport companies reported declines in passenger numbers of between about 22% and 40% in 2021 compared to 2019. Against an almost unchanged supply, this meant that transport operators and railway companies saw a total loss of revenue of around €4 billion in 2021. Thanks to financial support as part of a rescue package, however, the federal government and states were able to prevent long-term

² Kantar, Mobility Futures, 22 October 2019.

³ UNIFE, World Rail Market Study 2020–2025, 1 October 2020, p. 5, 103.

⁴ mofair e.V., Wettbewerber-Report Eisenbahnen 2021/22, 25. Oktober 2021.

⁵ Verband Deutscher Verkehrsunternehmen, ÖPNV-Bilanz 2019, 28 January 2020.

economic losses for the sector in the last two years. The Association of German Transport Companies (VDV) is expecting further loss of revenue totalling as much as €3.1 billion in 2022.⁶

So far, this development has not had an impact on investment in public transport. Last year, for example, the federal states had a total of around €10.3 billion in regionalisation funds at their disposal to finance local public transport and regional passenger transport.⁷ The Federal Ministry for the Environment also continued its funding scheme for the acquisition of electric buses for public transport, which has a volume of around €620 million from the energy and climate funds.⁸ In 2021, the VDV also announced investment in model projects for further digitalisation of public transport of roughly €250 million over the following four years.⁹

Public transport generally has popular sentiment on its side, with the European Parliament and European Council, for example, declaring 2021 the European Year of Rail.¹⁰ In December 2020, the European Commission also presented its “Sustainable and Smart Mobility Strategy”¹¹ within the framework of the “European Green Deal”.¹² The Commission’s aim is to make the EU climate neutral by 2050. Transport has an instrumental role to play in this, and the Commission intends to make it multimodal going forward. In order to achieve this, one of the aims is to continue driving forward digitalisation in the transport sector, which means that systems like those offered by IVU will be essential.

Earnings, finances and assets

Record earnings in 2021

IVU maintained its success in the 2021 financial year: EBIT rose by 9.0% to €13.9 million (2020: €12.8 million) far surpassing the target of €13 million.

⁶ Verband Deutscher Verkehrsunternehmen, Die Corona-Bilanz des ÖPNV: wirtschaftliche Lage bleibt schwierig, Erholung ab 20. März erwartet, 1. März 2022.

⁷ Bundesregierung, Mehr Mittel für den öffentlichen Nahverkehr, <https://www.bundesregierung.de/breg-de/suche/regionalisierungs-gesetz-1913264>, 25. Juni 2021.

⁸ BMU, Förderung der Elektromobilität, <https://www.bmu.de/themen/luft-laerm-mobilitaet/verkehr/elektromobilitaet/foerderung>, 29. September 2021.

⁹ Verband Deutscher Verkehrsunternehmen, Erster Digitalgipfel, 9. Februar 2021.

Revenue is increasing

Revenue rose by 11.8% to €102.9 million (2020: €92.0 million) meeting the target of over €100 million. In addition to proceeds from license sales, recurring revenue¹³ from the maintenance and hosting business contributed to growth, which increased by €5.0 million and thus accounted for 36% of total revenue (2020: 34 %).

Revenue breakdown

In 2021, 58% of revenue was generated on the German market and 42% from export business. Revenue on the German market increased to €60.2 million (2020: €45.4 million), while international revenue rose to €42.7 million (2020: €46.6 million).

Other operating income

Other operating income came to €1.3 million in the previous year (2020: €6.1 million). It should be noted here that this included non-recurring income of €5.3 million from the sale of IVU.elect GmbH in the previous year.

Rise in gross profit

Thanks to higher revenue, chiefly high-margin license and maintenance revenue, gross profit picked up by 7.7% to €75.8 million (2020: €70.4 million) exceeding the target of € 75 million and comfortably offsetting the special effect in the previous year described above.

Personnel expenses, depreciation and other expenses

Personnel expenses rose by 7.8% to €49.8 million in 2021 (2020: €46.2 million). This increase is due to the 8.6% rise in personnel capacity (FTE). Due to the shortage of skilled workers in the competitive IT sector, IVU generally has a high salary level. This applies both to new hires and existing employment

¹⁰ Beschluss (EU) 2020/2228 des Europäischen Parlaments und des Rates vom 23. Dezember 2020.

¹¹ European Commission, The European Green Deal, COM(2019) 640 final, 11 December 2019.

¹² Europäische Kommission, Strategie für nachhaltige und intelligente Mobilität COM(2020) 789 final, 9. Dezember 2020.

¹³ Revenues from long-term maintenance and hosting contracts with customers.

relationships, whose salaries are brought into line with normal market levels.

Depreciation on non-current assets was on par with the previous year at €2.5 million (2020: €2.5 million).

Other operating expenses rose to €9.5 million in 2021 (2020: €8.9 million) in connection with growth and higher internal IT expenses.

Tax expense

The tax expense of €4.2 million was the result of actual tax expense for the financial year of €1.6 million (2020: €1.9 million) and deferred tax expense of €2.6 million (2020: €0.2 million).

Finances and assets

Equity rose by €5.1 million to €67.9 million in the reporting year (2020: €62.8 million). At 52.1%, the equity ratio in 2021 was slightly up on the previous year (2020: 50.1%). The company's net assets are stable, and its financial strength remains very good thanks to its positive capital structure.

At €20.4 million, trade receivables are in line with the previous year's value (2020: €20.4 million). Other current assets included cash investments of €-0.7 million (2020: €-0.7 million) and were down somewhat on the previous year at to €29.6 million (2020: €30.3 million).

Contract assets were reduced to €12.6 million (2020: €12.7 million) and remain at a satisfactorily low level.

Contract liabilities came to €18.2 million (2020: €20.4 million) due to ongoing high project prepayments.

Provisions rose to €10.7 million, mostly in connection with provisions for completed projects (2020: €7.7 million).

Liquidity

At €19.1 million (2020: €30.8 million), operating cash flow was lower than the previous year's level on account of above-average project prepayments. Taking into account the cash flow for investment activities of €-1.2 million and financing activities of €-7.5 million, cash and cash equivalent increased by €10.4 million. The cash flow from financing activities includes the dividend payment to shareholders of €-3.5 million.

With €41.5 million in cash and cash equivalents as at 31 December 2021 (2020: €31.1 million), IVU's financial position can be rated very good.

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. The measures established on the basis of liquidity planning ensure that financial requirements are met. IVU's operating and investing financial requirements are met, where possible, from operating business and financial reserves. The available lines of credit of €2.1 million were not utilised in 2021.

IVU was able to meet its financial obligations at all times in the reporting year. IVU's clients have a very positive assessment of its creditworthiness.

Summary

IVU had a successful year in 2021, characterised by pleasing growth in revenue, gross profit and operating profit (EBIT) despite the corona pandemic. For 2022, we expect the continuation of the profitable growth course and are looking to the future with confidence thanks to the good order situation and promising sales opportunities.

D. FORECAST, RISK AND OPPORTUNITY REPORT

Order situation

A large portion of IVU's targets are already covered with an order backlog of over €90 million for the current financial year as at 28 February 2022. The focus is now on completing the orders. We do not anticipate any significant difficulties in completing the orders as a result of the coronavirus pandemic.

Outlook

IVU is well and robustly positioned, both technically and financially, with high liquidity, a good order backlog and rising recurring revenue.

We expect the positive business development to continue. For 2022, we expect consolidated revenue of over €105 million (actual 2021: €102.9 million), a gross profit of over €80 million (actual 2021: €75.8 million) and an operating result (EBIT) of over €14 million (actual 2021: €13.9 million).

IVU does not currently expect the war in Ukraine to have any material, direct effect, as it has no customer or supplier relationships in Ukraine or in Russia. No

effects are expected on account of the overall economic downturn but these cannot be fully ruled out.

The coronavirus pandemic is not expected to have a significant impact either thanks to IVU's business structure. As in every year, revenue is influenced by project-related hardware deliveries, which may be deferred in terms of annual cut-offs.

Risk management and internal control system (§ 315, para. 4 HGB)

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, as an integral component of company-wide risk management, covers all material operating and financial corporate risks and ensures the functionality and efficiency of business processes and asset management, the reliability of operating information and compliance with the relevant regulations.

The Executive Board assumes overall responsibility for internal controlling and risk management systems at IVU AG and all companies included in the consolidated financial statements 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. The internal control system with regard to the accounting process covers principles; procedures and controls. In particular, these include standardised accounting policies and processes that ensure financial reporting is complete, processes on separation of duties and the dual control principle, the identification of material risk areas that affect the accounting process and authorisation and access regulations for relevant IT systems.

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.

When evaluating risks, the individual categories are regularly considered at the department level. Depending on the risk assessment and the importance of the department to the Group as a whole, the Executive

Board steps up dialogue with the department's management and decides on specific measures if necessary.

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 IVU Executive Board established an early risk identification system to identify developments that could jeopardise the continued existence of the Group at an early stage and take suitable measures. Developments that could jeopardise the continued existence of the Group are risks that exceed the company's risk-bearing capacity individually or in combination. Risk-bearing capacity is the maximum amount of risk that can be borne without jeopardising the company's continued existence. The evaluation is based on the economic situation, size, regulatory circumstances and opportunities to raise capital. Since the reporting year, risk-bearing capacity at IVU has been reviewed on the basis of the liquidity planning and the order backlog, the calculation (forecast) of which takes into account the risks identified and thus the total exposure, taking net risks into consideration. A two-year evaluation period applies to risk inventories. However, this is adjusted individually on a case-by-case basis (e.g. projects with longer terms).

Risks

IT security and data protection

The IT risk situation for companies has increased sharply in recent years. Cyber crime, IT sabotage and the theft of sensitive data are now widespread. Our assessment of the probability of occurrence and possible losses is considered medium.

Given current political developments, the German Federal Office for Information Security has issued an urgent warning in this regard and has called for companies to be vigilant. This applies particularly to IVU as some of its customers are critical infrastructure companies.

To protect against cyber crime, IVU uses the latest defence systems (firewalls etc.) and modern hardware

and software infrastructure, which is regularly tested by specialist security firms. Customer systems in IVU.cloud are operated entirely in the IT environments of recognised international cloud operators. Binding data security measures for IVU customers, as well as all suppliers and service providers, are agreed in contract data processing contracts.

IVU also successfully had its information security processes certified last year in accordance with the ISO/IEC 27001 standard and will be regularly audited in line with this standard in the years ahead.

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.

Financial risks

IVU's operating business and investments are financed primarily by trade receivables, cash and cash equivalents and guarantees. The material risks here are payment defaults and payment delays.

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 economic consequences of the coronavirus pandemic could also lead to payment defaults, especially among smaller customers. 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.

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 losses remain unchanged at high and low respectively. As a hedge for cash flows in foreign currency, IVU concludes currency forward transactions as needed and where such transactions make economic sense. 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.

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.

Personnel

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 need to recruit specialists due to the growth in our business and

with the potential loss of expertise. Our evaluation of the probability of occurrence is still medium with the extent of damage still 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, as well as a policy of actively recruiting highly qualified employees.

Coronavirus pandemic

The coronavirus pandemic has so far had only a minor impact on IVU's business. There is still a risk of supply delays for hardware purchases. Due to the basic structure of IVU's business, which consists primarily of the development, sale and maintenance of digital products, and a high proportion of revenue in the domestic markets, we continue to assume that the overall risk is low.

Overall risk assessment

We are still assuming low risk overall for IVU.

Opportunities

The marketing strategy adopted by IVU aims to further expand the company's 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. With our products for public transport, which are bundled in the IVU.suite, we are one of only a few providers of comprehensive, integrated solutions.

In particular, our business on the domestic market and in small and medium-sized projects is stable and therefore easily predictable. Conversely, it is difficult to plan the placement of orders and the progress of major projects. In this context, individual projects can have a major impact on IVU's result.

Overall, the opportunities for IVU are assessed as very good. We are profiting from the sustained trends towards urbanisation, digitalisation and mobility as well as the growing demands on climate protection, 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.

E. SUPPLEMENTARY INFORMATION

Supplementary information as per Sections 315a HGB

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 27 May 2021, 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 €5,315,748.00, by issuing new no-par value bearer shares against cash and/or non-cash contributions by 26 May 2026 (2021 authorised capital). The authorisation of the Executive Board with the same content granted by resolution of the Annual General Meeting on 25 May 2016 (2016 authorised capital) was valid until 24 May 2021. The Executive Board can make use of this authorisation for any legally permissible purpose. In 2020 and 2021, the Executive Board did not make use of the authorisations.

Furthermore, by way of resolution of the Annual General Meeting on 29 May 2019, 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 by 28 May 2024. 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.

Based on this resolution, the Executive Board approved buyback programs for treasury shares in the 2021 financial year on 10 May, 14 September and 10 December. The purpose of the three buyback programs was to particularly use the shares to service Executive Board remuneration and employee participation programs. A total of 124,551 shares were repurchased at a total price of €2,389 thousand. This corresponds to 0.70% of the no-par value shares in the share capital of IVU Traffic Technologies AG. The shares were acquired exclusively via the stock exchange by a bank commissioned by the company (XETRA trading).

From the shares acquired, a total of 40,586 no-par value shares were issued (12,094 shares at an issue price of €18.12 each 16,345 at an issue price of €20.84 each, 41 at an issue price of €20.28 each and 12,106 at an issue price of €20.00 each) for all IVU employees in Germany in the 2021 financial year. The members of the Executive Board received 14,317 shares as part of their variable remuneration at an issue price of €18.50 each. The number of shares issued corresponds to 0.31% of the no-par value shares in the share capital of IVU Traffic Technologies AG.

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 6 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 et seq. AktG.

According to Article 16 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.

Declaration on Corporate Governance as per Section 315d HGB

The company has published the corporate governance declaration, which is part of the Group management report, on its website, www.ivu.com/investors/corporate-governance-en. The corporate governance declaration comprises the declaration pursuant to Section 161 AktG regarding compliance with the German Corporate Governance Code.

Responsibility statement by the legal representatives¹⁴

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, 29 March 2022

The Executive Board



Martin Müller-Elschner



Matthias Rust



Leon Struijk

¹⁴ Content not reviewed by the auditor.

CONSOLIDATED FINANCIAL STATEMENTS





Consolidated Balance Sheet as at 31 December 2021

ASSETS	Notes	31 Dec 2021	31 Dec 2020
		€ thousand	€ thousand
A. Current assets			
1. Cash and cash equivalents	(119)	41,460	31,096
2. Current trade receivables	(111) - (114)	20,364	20,351
3. Current receivables from joint ventures	(106) - (109)	5	22
4. Current contract assets	(115) - (117)	12,605	12,684
5. Inventories	(110)	3,181	3,756
6. Other current assets	(118)	29,596	30,313
Current assets, total		107,211	98,222
B. Non-current assets			
1. Tangible fixed assets	(102)	1,597	1,521
2. Intangible assets	(102) - (104)	11,647	11,607
3. Financial assets	(106) - (109)	347	385
4. Rights of use	(72) - (79)	8,708	10,174
5. Non-current trade receivables	(114)	61	0
6. Deferred taxes	(148) - (152)	745	3,440
Non-current assets, total		23,105	27,127
ASSETS, TOTAL		130,316	125,349

		31 Dec 2021	31 Dec 2020
LIABILITIES	Notes	€ thousand	€ thousand
A. Current liabilities			
1. Current trade accounts payable	(48) - (49)	3,834	4,730
2. Contractual liabilities	(115) - (117)	18,215	20,427
3. Current leasing liabilities	(70) - (79)	1,451	1,493
4. Provisions	(144) - (145)	10,688	7,740
5. Tax liabilities	(148) - (152)	913	857
6. Other current liabilities	(146) - (147)	14,986	13,138
Current liabilities, total		50,087	48,385
B. Non-current liabilities			
1. Leasing liabilities	(70) - (79)	7,474	8,882
2. Deferred taxes	(148) - (152)	0	32
3. Provisions for pensions	(128) - (139)	4,879	5,252
Non-current assets, total		12,353	14,166
C. Equity			
1. Share capital	(120) - (124)	17,719	17,719
2. Additional paid-in capital	(52) - (56), (60)	1,307	581
3. Revenue reserve	(52) - (54)	53,181	47,377
4. Other reserve	(55)	-956	-1,277
5. Own shares	(124) - (127)	-3,375	-1,602
Equity, total		67,876	62,798
LIABILITIES, TOTAL		130,316	125,349

Consolidated income statement for the 2021 financial year

	Notes	2021 € thou.	2020 € thou.
Revenue	(155)	102,884	92,031
Other operating income	(156)	1,330	6,103
Cost of materials	(157)	-28,435	-27,772
Gross profit		75,779	70,362
Personnel expenses	(158)	-49,815	-46,204
Depreciation on non-current assets	(159)	-2,526	-2,528
Other operating expenses	(160)	-9,517	-8,854
Earnings before interest and taxes (EBIT)		13,921	12,776
Financial income		0	53
Financial expenses	(161)	-357	-271
Result from investments accounted for using the equity method	(106) - (109)	-38	-369
Earnings before taxes (EBT)		13,526	12,189
Actual income taxes	(148) - (152)	-1,630	-1,889
Deferred taxes	(148) - (152)	-2,577	-208
CONSOLIDATED NET RESULT		9,319	10,092

Total shares (in thousands)	(162) - (163)	17,719	17,719
Earnings per share (diluted)	(162) - (163)	0.53	0.57
Weighted average shares outstanding (in thousands)	(162) - (163)	17,567	17,597
Earnings per share (basic)	(162) - (163)	0.53	0.57

Consolidated statement of comprehensive income for the 2021 financial year

	notes	2021 € thou.	2020 € thou.
Consolidated net result		9,319	10,092
Currency translation	(26), (55)	64	9
Other comprehensive income to be reclassified to the consolidated income statement in subsequent periods		64	9
Actuarial gains / losses from the valuation of pension commitments	(128) - (138)	343	-108
Income tax effect	(148) - (152)	-86	34
Other comprehensive income not reclassified to the consolidated income statement in subsequent periods		257	-74
Other comprehensive income after taxes		321	-65
CONSOLIDATED COMPREHENSIVE INCOME AFTER TAXES		9,640	10,027

Consolidated statement of changes in equity for the financial years 2021 and 2020

Notes	SHARE CAPITAL € thou.	CAPITAL RESERVE € thou.	RETAINED EARNINGS € thou.	OTHER RE-SERVES € thou.	FOREIGN CURRENCY ADJUST- MENT ITEM (OTHER RESERVES) € thou.	OWN SHARE AT ACQUISITION COST € thou.	TOTAL € thou.
	(120) - (127)	(52) - (56), (60)	(54)	(55)	(55)	(124) - (127)	
As at 1 January 2020	17,719	198	40,098	-1,248	36	0	56,803
Consolidated net income 2020	0	0	10,092	0	0	0	10,092
Other comprehensive income after taxes	0	0	0	-74	9	0	-65
Consolidated recognised results after tax	0	0	10,092	-74	9	0	10,027
Acquisition of own shares	0	0	0	0	0	-1,965	-1,965
Issue of own shares	0	44	0	0	0	363	407
Addition to share-based Executive Board remuneration	0	339	0	0	0	0	339
Dividend distribution (€0.12 per share)	0	0	-2,813	0	0	0	-2,813
AS AT 31 DECEMBER 2020	17,719	581	47,377	-1,322	45	-1,602	62,798
As at 1 January 2021	17,719	581	47,377	-1,322	45	-1,602	62,798
Consolidated net income 2021	0	0	9,319	0	0	0	9,319
Other comprehensive income after taxes	0	0	0	257	64	0	321
Consolidated recognised results after tax	0	0	9,319	257	64	0	9,640
Acquisition of own shares	0	0	0	0	0	-2,454	-2,454
Issue of own shares	0	387	0	0	0	681	1,068
Addition to share-based Executive Board remuneration	0	339	0	0	0	0	339
Dividend distribution (€0.16 per share)	0	0	-3,515	0	0	0	-3,515
AS AT 31 DECEMBER 2021	17,719	1,307	53,181	-1,065	109	-3,375	67,876

Consolidated statement of cash flows for the 2021 financial year

	Notes	2021 € thou.	2020 € thou.
Consolidated earnings before income taxes for the period		13,526	12,189
Depreciation of fixed assets	(159)	2,526	2,528
Change in provisions	(144) - (145)	2,918	1,480
Net interest income	(161)	357	218
Equity-settled share-based payment	(57) - (60), (124)	1,407	339
Non-cash expenses / income from right of use and leasing liabilities	(70) - (79)	16	91
Other non-cash expenses / income		64	10
Share of profit of joint ventures	(109)	38	369
Result from the disposal of consolidated subsidiaries	(105)	0	-5,330
		20,852	11,894
Changes in current assets and liabilities		0	0
Inventories	(110)	575	-1,064
Receivables and other assets	(111) - (118)	691	11,707
Liabilities (excluding provisions)		-1,260	9,653
		20,858	32,190
Interest paid		-255	-144
Income taxes paid		-1,524	-1,284
Cash flow from operating activities		19,079	30,762
Payments made for investments in fixed assets		-1,174	-1,480
Payments for the acquisition of shares in associated companies	(108)	0	-754
Payments for monetary investments	(164)	0	-25,000
Proceeds from disposals of consolidated subsidiaries	(105)	0	4,583
Interest received		0	53
Cash flow from investing activities		-1,174	-22,598
Acquisition of own shares	(123) - (127)	-2,454	-1,965
Payments for the repayment of leasing liabilities	(70) - (79)	-1,572	-1,544
Payment of dividends		-3,515	-2,813
Cash flow from financing activities		-7,541	-6,322
Cash and cash equivalents at the beginning of the period		31,096	29,254
Net change in cash and cash equivalents		10,364	1,842
CASH AND CASH EQUIVALENTS AT THE END OF THE PERIOD	(119)	41,460	31,096

+ = cash inflow / - = cash outflow

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS





Notes to the consolidated financial statements as at 31 December 2021

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 2021 and the Group management report for the 2021 financial year on 31 March 2022 and then submitted them to the Supervisory Board for approval. The Supervisory Board approved them at its meeting on 31 March 2022.
- 3 The business activities of the Group comprise the development, manufacture, marketing and operations of soft- and hardware systems for planning, organisation and information processing for public administrations, transport companies and other public and private sector operators. Services such as training and consulting are offered for IVU products. The expansion of the cloud business is also being driven forward. This includes research and the formulation of expert reports. The average number of employees in the Group was 761 in 2021 [2020: 702].
- 4 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), Olten (Switzerland), Vienna (Austria), Utrecht (Netherlands), Paris (France) Rome (Italy), Birmingham (UK), Budapest (Hungary), San Francisco (United States), Santiago (Chile) and Hanoi (Vietnam).
- 5 The company (IVU AG) is listed in the Prime Standard (Deutsche Börse AG) on the Frankfurt stock exchange.

B. ACCOUNTING POLICIES

Basis of preparation

- 6 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 euros and are rounded to the nearest one thousand euros.
- 7 The consolidated financial statements of IVU AG were prepared on the basis of the historical cost principle. In line with the management's assessment, they were also prepared on a going concern basis.

Changes in accounting policies

- 8 There were no amendments to accounting standards or interpretations to be taken into account that have a material impact on the presentation of the consolidated financial statements for the financial year.
- 9 The Group has not applied any standards, interpretations or amendments that have been published but have not yet come into effect prematurely.

Effects of new accounting standards

- 10 On 23 January 2020 the IASB published the amendment to IAS 1 'Classification of liabilities as current or non-current'. The purpose of the amendments to IAS 1 is to clarify that the classification of liabilities as current or non-current is to be based on existing rights of the company on the balance sheet date. In doing so, management's

expectations as to whether such a right will actually be exercised should not be taken into account. The amendments to IAS 1 are to be applied retrospectively and for the first time for fiscal years beginning on or after January 1, 2023.

In May 2020, the IASB issued amendments to IFRS 3 "Business Combinations: References to the Conceptual Framework." The amendments are effective for annual reporting periods beginning on or after 1 January 2022 and are to be applied prospectively. Also in May 2020, the IASB issued amendments to IAS 37 "Provisions, Contingent Liabilities and Contingent Assets: Onerous Contracts – Costs of Fulfilling a Contract" to specify which costs an entity should consider when assessing whether a contract is onerous or loss-making. The amendments are effective for annual reporting periods beginning on or after 1 January 2022. In August 2020, the IASB also adopted amendments to IFRS 9, IAS 39, IFRS 7, IFRS 4 and IFRS 16 with regard to the reform of reference rates (IBOR reform) – phase 2. The amendments provide temporary relief when a reference interest rate (IBOR – Interbank Offered Rate) is replaced by an alternative near risk-free rate (RFR – Risk-free Rate) and this has an impact on financial reporting. The amendments are effective for annual reporting periods beginning on or after 1 January 2022.

On 12 February 2021, the IASB issued amendments to IAS 1 "Presentation of Financial Statements" and IAS 8 "Accounting Policies, Changes in Accounting Estimates and Errors." The amendment to IAS 1 "Disclosures of Accounting Policies" will in future require only the significant accounting policies to be presented in the notes. To be significant, the accounting policy must be related to material transactions or other events and there must be a reason for the presentation. The amendment to IAS 8 "Definition of Accounting Estimates" clarifies how entities can better distinguish changes in accounting policies from changes in accounting estimates. The amendments are effective for annual reporting periods beginning on or after 1 January 2023. According to the IASB, early application of the amendments is permitted, but requires EU endorsement.

Other new accounting standards were examined, but were not material for the consolidated financial statements of IVU.

The amendments are not expected to have significant effects on the consolidated financial statements of IVU. IVU does not intend to make use of voluntary early application of new accounting standards.

Significant judgements, estimates and assumptions

- 11 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.
- 12 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. The coronavirus pandemic is not expected to have a significant impact on IVU. This is mainly due to the structure of IVU's business, which focuses on the development and sale of primarily digital products.
- 13 **Impairment on goodwill:** The IVU Group tests goodwill for impairment based on the regulations of IAS 36 annually as at the end of the reporting period and additionally if there is evidence of impairment. 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 (103) and (104). The carrying amount of the tested goodwill as at 31 December 2021 was €11,349 thousand (2020: €11,349 thousand).
- 14 **Identification of performance obligations and recognition of revenue from contracts with customers in implementation projects:** The IVU Group provides installation services and

furthermore provides licenses, hosting and maintenance services. The Group generates much of its revenue from software implementation projects. The provision of licences, hardware and the services offered are in principle separately identifiable. However, these contractual commitments are not definable as a rule in the context of the Group's usual implementation projects. Rather, these are contractually defined service packages, where not only the software but also integration thereof plays a key role. Accordingly, implementation projects are usually accounted for as a contractual obligation.

In the case of implementation projects, the services over a period give rise to assets that do not present any alternative potential uses for IVU. In terms of the contracts, the Group has a legal claim to appropriate remuneration for the services performed at any point during the contract execution.

The Group therefore recognises revenue on the basis of the estimated performance in projects. Performance estimates are made based on an estimated quantity of hours and other project-related costs and are continuously updated.

These following judgements have a material influence on determining the amount and timing of revenue from contracts with customers. Further details on revenue from projects recognised but not yet invoiced can be found in sections (116) et seq.

- 15 Loss allowance for expected credit losses on trade receivables and contract assets – from 1 January 2021:** The Group calculates the expected losses from the receivables as at the end of the reporting period on the basis of historical loss rates for trade receivables grouped by length of time past due. Forward-looking information about the development of macroeconomic factors is taken into account. Expected credit losses are recognised as loss allowances. Information about expected credit losses on the Group's trade receivables and contract assets is included in paragraphs (116) et seq. In previous years, assessment was on a purely individual basis.
- 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 €2,809 thousand (2020: €5,357 thousand) as at 31 December 2021. As far as possible, the balance sheet shows netted figures, hence the reporting of a deferred tax asset of €745 thousand and a deferred tax liability of €0 thousand. Further details can be found in paragraphs (148) through (152).

- 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 new Heubeck mortality tables (2018 G) had to be taken into account in the financial year. The provision for pensions and similar obligations was €4,879 thousand (2020: €5,252 thousand) as at 31 December 2021. Further details can be found in paragraph (128) et seq.

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 2021. Control over an investee particularly exists when the Group meets all the following criteria:
- 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. If the parent company loses control over a subsidiary, it shall remove all assets, liabilities and other activities attributable to this disposal group from the Group.

- 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.
- 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., Bozen, Italy ('IVU Italia')	100.0
IVU Traffic Technologies UK Ltd., Birmingham, Great Britain ('IVU UK')	100.0
IVU Benelux B.V., Utrecht, Netherlands ('IVU Benelux')	100.0
IVU Chile LTDA., Santiago de Chile, Chile ('IVU Chile')	100.0
IVU Traffic Technologies Inc., Wilmington, Delaware, USA ('IVU USA')	100.0
IVU Traffic Technologies Schweiz AG, Olten, Switzerland ('IVU Schweiz')	100.0
IVU Traffic Technologies Austria GmbH, Vienna, Austria ('IVU Austria')	100.0

b) Joint ventures

- 22 In the year 2019, IVU AG and ebusplan GmbH, Aachen, founded the joint venture EBS ebus solutions GmbH, based in Aachen (hereinafter: EBS). IVU AG holds a share of 74% and accounts for this using the equity method in accordance with IAS 28 because the provisions of the joint venture shareholders' agreement on voting rights mean that the Group is unable to control those activities of EBS that have a significant influence on its return.

c) 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 = 1.1901; 2020: 1.1123). Income and expenses are translated at the weighted average exchange rate for the financial year (GBP/EUR = 1.1636; 2020: 1.1240).

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 = 0.0010; 2020: 0.0012). Income and expenses are translated at the weighted average exchange rate for the financial year (CLP/EUR = 0.0011; 2020: 0.0011).

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 = 0.9680; 2020: 0.9258). Income and expenses are translated at the weighted average exchange rate for the financial year (CHF/EUR = 0.9250; 2020: 0.9341).

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 = 0.8829; 2020: 0.8149). Income and expenses are translated at the weighted average exchange rate for the financial year (USD/EUR = 0.8460; 2020: 0.8755).

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.
- 28 **Goodwill:** 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.
- 29 **Industrial rights and licenses, software:** 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.
- 32 **Capitalised development costs for internally developed software:** 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 2021 and 2020 financial years, especially as the idea generation (research) and idea implementation (development) phases for IVU products are iterative and therefore cannot be separated.

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 a subsequent 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:

- Hardware: 3 years
- Other office equipment: 3 to 15 years

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) Shares in financial assets accounted for using the equity method

- 37 The Group's shares in financial assets accounted for using the equity method include shares in a joint venture. A joint venture is an arrangement where the Group exercises joint control, whereby it has rights to the net assets of the arrangement rather than rights over its assets and obligations for its liabilities.
- 38 Shares in the joint venture are accounted for using the equity method. They are initially recognised at cost, which includes transaction costs. After initial recognition, the consolidated financial statements include the Group's share of the comprehensive income from investments accounted for using the

equity method until the date on which joint control ceases.

d) 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 2021 and 2020 financial years.

e) Financial assets

- 40 **Initial recognition and measurement:** On initial recognition, financial assets are classified either as at amortised cost, as at fair value in other comprehensive income without affecting profit or loss or as at fair value through profit or loss. The classification of financial assets on initial recognition depends on the characteristics of the contractual cash flows of the financial assets and on the Group's business model for managing its financial assets. Trade receivables that do not contain any significant financing components are measured at the transaction price determined in accordance with IFRS 15. Please see the accounting policies in the section "Revenue from contracts with customers".

- 41 **Subsequent measurement:** Financial assets are classified in four categories for subsequent measurement:

- Financial assets measured at amortised cost (debt instruments).
- Financial assets measured at fair value in other comprehensive income with reclassification of cumulative gains and losses (debt instruments).
- Financial assets measured at fair value in other comprehensive income without reclassification of cumulative gains and losses on derecognition (equity instruments).

- Financial assets measured at fair value.

42 Financial assets measured at amortised cost (debt instruments): This category has the most significance for the consolidated financial statements while the other categories listed above do not play any material role. The Group measures financial assets at amortised cost if the following two conditions are met:

- The financial asset is held within the framework of a business model, the objective of which is to hold financial assets to collect the contractual cash flows, and
- the contractual terms of the financial assets lead to cash flows at specific times, which solely constitute principal and interest payments on the outstanding capital amount.

The effective interest rate is used to measure financial assets in subsequent periods and they must be tested for impairment. Gains and losses are recognised in profit or loss when the asset is derecognised, modified or impaired. The Group's financial assets measured at amortised cost contain trade receivables, cash and cash equivalents and other current assets. The carrying amounts represent reasonable approximations of the fair values of the financial assets.

43 Derecognition: A financial asset (or part of a financial asset or a part of a group of similar financial assets) is mainly derecognised (i.e. removed from the consolidated statement of financial position) when it is classified as irretrievable.

Impairment of financial assets: Additional details of the impairment of financial assets are contained in notes "Significant judgements, estimates and assumptions" (paragraphs (11) to (17)) and in the notes on the consolidated statement of financial position, chapter C.

Objective and methods of financial risk management

44 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.

45 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. For trade receivables, expected losses are calculated and taken into account as at the reporting date in line with the remarks in paragraph (15).

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

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

47 The objective of the Group's capital management is to ensure that it maintains a strong credit rating and stable equity ratio in order to support its business operations and shareholder value. IVU manages its capital structure according to the current economic conditions. In the 2020 and 2021 financial years, no adjustments or changes were made to the targets and guidelines for capital management. The Group monitors its capital by way of the equity ratio on a consolidated basis.

48 The maturities of financial liabilities as at 31 December 2021 are as follows:

	Due € thou.	Within 1 year € thou.	More than 1 year € thou.	Total € thou.
Trade payables	109	3,725	0	3,834
Other liabilities	0	12,455	0	12,455
TOTAL	109	16,180	0	16,289

Given the short-term nature of financial liabilities, as at 31 December 2021 there were no material differences between the carrying amounts shown in the statement of financial position and the undiscounted cash flows.

49 The maturities of financial liabilities as at 31 December 2020 were as follows:

	Due € thou.	Within 1 year € thou.	More than 1 year € thou.	Total € thou.
Trade payables	43	4,687	0	4,730
Other liabilities	0	10,228	0	10,228
TOTAL	43	14,915	0	14,958

Given the short-term nature of financial liabilities, as at 31 December 2020 there were no material differences between the carrying amounts shown in the statement of financial position and the undiscounted cash flows.

Current assets

a) Inventories

- 50 Inventories are measured at the lower of cost or the expected sales proceeds less costs yet to be incurred.

b) Cash and cash equivalents

- 51 Cash and cash equivalents comprise cash, time deposits and demand deposits and arise in line with the cash and cash equivalents of the consolidated statement of cash flows.

Equity

- 52 Equity comprises subscribed capital, capital reserves, retained earnings, other reserves, foreign currency adjustment items and the reserve for treasury shares.
- 53 Capital reserves include amounts generated by issuing shares in excess of the nominal value and in excess of the costs of the initial public offering, offset by loss carryforwards in accordance with resolutions regarding the appropriation of profits. Please see paragraphs (57) to (60) and paragraph (56) for information on the impact of share-based payment arrangements and treasury shares on capital reserves.
- 54 Retained earnings include the appropriation of profits in accordance with Section 174 of the German Stock Corporation Act (AktG). In accordance with the resolutions of the Annual General Meeting of 28 May 2020 and 27 May 2021, €2,500 thousand was transferred from net income to revenue reserves in 2019 and 2020.

- 55 Actuarial gains and losses from the measurement of pension commitments and unrealised gains and losses from currency translation in currency translation adjustments are reported in the other reserve.

- 56 If share capital recognised in equity is repurchased, the amount paid including the direct costs is deducted from equity. The acquired shares are classified as treasury shares and recognised in the reserve for treasury shares. If treasury shares are sold or reissued at a later date, the revenue is recognised as an increase in equity. Any difference is recognised within capital reserves.

Share-based payment arrangements

- 57 The fair value at grant date of share-based payment arrangements to Executive Board members is recognised as an expense with a corresponding increase in equity over the period in which the Executive Board members become unconditionally entitled to the shares. As the share-based payment agreement contains market conditions, the fair value at grant date takes into account the probability of the condition being met and accordingly reflects the probability of different outcomes.
- 58 **Description of share-based payment arrangements:** Under the Long Term Incentive Plan initiated by the company, the members of the Executive Board receive shares in the company as a further variable remuneration component. The future transfer of shares is dependent on the positive development of the IVU share price, taking into account the performance of the TecDAX stock market index, and the achievement of a certain target price in the fourth quarter of 2022. The term of the programme will end on 31 December 2022. The physical delivery of the shares would then have to be fulfilled by IVU in the first quarter of 2023. In accordance with the principle of sustainable remuneration, the right to transfer and the number of shares actually transferred to the Executive Board depends on the economic development of the company. A maximum total of 180,000 shares can be granted, the minimum number is 0. IVU will settle its obligations under the Long Term Incentive Plan by repurchasing treasury shares and issuing them to Executive Board members on the settlement date.

59 Determination of fair values: The fair value of the share programme amounts to €1,216 thousand and was determined using the Monte Carlo simulation. The fair value of those equity instruments are measured at grant date. If a share-based payment arrangement contains a market condition, the fair value at grant date should reflect the probability that the conditions will be met and, accordingly, the probability of different outcomes. In order to do justice to this from a valuation point of view, a valuation technique was applied that takes into account various possible outcomes. In determining the fair value of the share-based payment plans, an IVU share price of €9.86, an index value of 2,873 points – in each case on the grant date – a term of 3.6 years, standard deviations of returns of 19% (index) and 35% (share price) and a risk-free interest rate of -0.62% were used.

60 Expenses recognised in profit or loss: Personnel expenses include expenses from share-based payments settled by equity instruments (share option programme for Executive Board members) amounting to €339 thousand (2020: €339 thousand). In the following years until the end of the term of the programme in 2022, €339 thousand will be recognised annually in personnel expenses and transferred to the capital reserve.

Provisions for pensions

61 The IVU Group has three defined benefit pension plans. Pension commitments are exclusively fixed commitments to former members of the Executive Board and employees acquired in the past as part of a company acquisition (old pension commitments). Some of these commitments are secured by plan assets. There are no legal or regulatory minimum allocation obligations. The commitments comprise retirement benefits and benefits for relatives in the event of the employee's death while still employed. The defined benefit commitments result in risks for the company on account of potential fluctuations in the obligations from defined benefit commitments and fluctuations in plan assets. Fluctuations in defined benefit commitments result chiefly from changes in financial assumptions such as discount rates and the change in demographic assumptions (change in life expectancy). Potential changes in expected long-term wage and salary increases have no material effect on the amount of the obligations due

to the structure of the commitments. The market value of plan assets and thus their fluctuation depends chiefly on the situation on capital markets.

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 other reserves 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 are protected from the creditors of the Group.

Current liabilities

a) Other provisions

62 Provisions are recognised only when the company has a present obligation (legal, contractual 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.

In accordance with IAS 37, contingency reserves include current contractual obligations from onerous contracts. In the valuation, the contractually agreed revenue is compared with the order-related fixed and variable costs of meeting the

obligations. General administrative and selling expenses are not included.

b) Financial liabilities

- 63 **Initial recognition and measurement:** financial liabilities are classified on initial recognition as financial liabilities, which are measured at fair value, as loans, as liabilities or as derivatives, which were designed as hedging instruments and are effective as such.

All financial liabilities are measured at fair value on initial recognition, less directly attributable transaction costs in the case of loans and liabilities. The Group's financial liabilities comprise trade payables and other liabilities.

Subsequent measurement: Trade payables and other liabilities are subsequently measured at amortised cost using the effective interest method. The carrying amounts are reasonable approximations of the fair values of the financial liabilities.

A financial liability is derecognised if the underlying obligation is fulfilled, cancelled or has expired.

Contingent liabilities and contingent assets

- 64 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.
- 65 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

- 66 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.
- 67 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 2021.

- 68 In 2021, IVU AG recognised funding under various government projects for the development of software applications and further state development funding totalling €589 thousand (2020: €348 thousand). The income is included in other operating income.

Research and development costs

- 69 Research and development costs amounted to €5,963 thousand in the 2021 financial year (2020: €4,393 thousand).

Leases

- 70 At the inception of a contract, the Group assesses whether it constitutes or contains a lease. A contract is, or contains, a lease if the contract conveys the right to control the use of an identified asset for a period of time in exchange for consideration. The Group recognises and measures all leases (with the exception of short-term leases and leases for which the underlying asset is of low value) using a single model. It recognises liabilities for lease payments and rights of use for the right to use the underlying asset.
- 71 **Determining the term of leases with options to extend or terminate – the Group as a lessee:** The Group determines the term of the lease on the basis of the non-cancellable period of the lease and including the periods resulting from an option to extend the lease, provided that it is reasonably certain that it will exercise this option, or the periods resulting from an option to terminate the lease, provided that it is reasonably certain that it will not exercise this option. The Group has entered into several lease agreements that include options to extend or terminate. These mainly relate to property lease agreements. The Group makes significant judgements in assessing whether there is sufficient certainty that the option to extend or terminate the lease will be exercised or not. In other words, it takes into account all relevant factors constituting an economic incentive for it to exercise the option to extend or terminate. After commencement of the lease, the Group

determines again if a significant event or change in circumstances occurs that is within its control and affects whether or not it will exercise its option to extend or terminate the lease (e.g. significant leasehold improvements or significant adjustment to the underlying asset).

72 Rights of use: The Group recognises rights of use at the commencement date (i.e. when the underlying leased asset is ready for use). Rights of use are recognised at cost less any accumulated depreciation and any accumulated impairment losses and are adjusted for any remeasurement of the lease liabilities. The cost of rights of use includes the lease obligations recognised, the initial direct costs incurred and the lease payments made at or before provision, less any lease incentives received. Rights of use are amortised on a straight-line basis over the shorter of the lease term and the expected useful life of the lease. The rights of use are tested for impairment by no later than the reporting date.

73 Lease liabilities: At the lease commencement date, the Group recognises lease liabilities at the present value of the lease payments payable over the lease term. Lease payments comprise fixed payments (including in-substance fixed payments) less any lease incentives to be received. Purchase options, penalties for termination and variable lease payments were not taken into account in the financial year. In calculating the present value of the lease payments, the Group uses its assumed incremental borrowing rate at the commencement date (interest rate statistics of the Deutsche Bundesbank), as the interest rate underlying the lease cannot be readily determined. After the commencement date, the amount of lease liabilities is increased to reflect the higher interest expense and decreased to reflect lease payments made. In addition, the carrying amount of lease liabilities is revalued if there are changes in the lease, changes in the lease term, changes in lease payments (for example, changes in future lease payments resulting from a change in the index or interest rate used to determine those payments) or a change in the assessment of a call option for the underlying asset.

74 The following table shows the carrying amounts of the rights of use recognised and the changes during the reporting period:

	Property rental € thou.	Cars € thou.	Hardware € thou.	Total € thou.
As at 1 January 2021	9,910	240	24	10,174
Additions	13	43	0	56
Depreciation expense	1,366	135	24	1,525
Currency difference	3	0	0	3
As at 31 December 2021	8,560	148	0	8,708

75 In der folgenden Tabelle sind die Buchwerte der bilanzierten Nutzungsrechte und die Veränderungen des Vorjahres dargestellt:

	Property rental € thou.	Cars € thou.	Hardware € thou.	Total € thou.
As at 1 January 2020	6,966	168	64	7,198
Additions	4,239	210	0	4,449
Depreciation expense	1,295	138	40	1,473
AS AT 31 DECEMBER 2020	9,910	240	24	10,174

76 The following table shows the carrying amounts of the rights of use recognised and the changes in the previous year:

	2021 € thou.	2020 € thou.
As at 1 January	10,375	7,308
Additions	59	4,601
Interest accrued	100	-24
Payments	1,612	1,510
Currency difference	3	0
AS AT 31 DECEMBER	8,925	10,375
Of which due within 1 year	1,451	1,493
Of which due between 1 and 5 years	3,951	4,499
Of which due in more than 5 years	3,523	4,383

77 The following amounts were recognised in profit or loss in the reporting period:

	2021 € thou.	2020 € thou.
Depreciation expense for rights of use	1,525	1,473
Interest expenses for lease liabilities	102	127
Expenses for short-term leases (included in other operating expenses)	40	34
Expenses for leases with an asset of low value	0	0
Variable lease payments	0	0
TOTAL AMOUNT RECOGNISED IN PROFIT OR LOSS	1,667	1,634

- 78 The Group has entered into several lease agreements that include options to extend or terminate. This mainly relates to the property lease agreements for the Berlin, Aachen and Rome locations. The assessment of whether the exercise of these options to extend and renew is sufficiently certain requires significant judgements on management's part.
- 79 The Group's cash outflows for leases amounted to €1,652 thousand in 2021 (2020: €1,544 thousand). In addition, the Group reported non-cash additions to rights of use and lease liabilities of €56 thousand in 2021 (2020: €4,449 thousand).

Revenue from Contracts with Customers

- 80 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. These projects also include the sale of hardware and services, e.g. installation, consulting, training, maintenance and the sale of licenses.
- 81 Revenue from contracts with customers is recognised if control of goods and services is transferred to the customer. It is recognised at the amount of consideration which the Group is expected to receive in exchange for these goods or services to a customer. The Group has come to the conclusion that it acts as principle with its sales transactions, as it usually has control of goods or services before these are passed to the customer.
- 82 The significant judgements, estimates and assumptions in connection with revenue from

contracts with customers are explained in paragraph (14).

- 83 For all types of contract, the Group checks whether several commitments are contained in the contract, which constitute separate contractual obligations, to which a part of the transaction price must be allocated. In determining the transaction price, the Group takes account of the effects of variable consideration, the existence of significant financing components, non-cash consideration and, if applicable, consideration to be paid to a customer.
- 84 The Group offers the warranties usually prescribed by law for the rectification of defects, which were present at the time of sale. These assurance-type warranties, as they are known, are recognised in accordance with IAS 37 "Provisions, Contingent Liabilities and Contingent Assets." Details on the accounting policy for warranty provisions are included in section (62).
- 85 As a rule, the Group has no material costs for contract initiation to be capitalised, as sales take place on the Group's behalf and no direct commission is paid for these. Other contract initiation costs, e.g. stamp duties and other fees are insignificant in amount.
- 86 Revenue is recognised over a period of time or at a specific point in time depending on the contract and the service to be supplied. Given the very different individual contractual arrangements on service provision and settlement, the timing of service provision and payment may differ depending on the contract. As a result, contract liabilities may arise from customer payments received in advance and contract assets or trade receivables may arise from services provided by IVU.

a) Project business

- 87 For long-term project agreements that satisfy the conditions for measurement over a period of time (the service creates an asset that does not represent an alternative use for IVU), revenue from the development and sale of software products and implementations is deferred and recognised based on the percentage of completion of the project using an input-oriented method. The percentage of completion is usually determined by the ratio of costs incurred to the total planned costs. Advance payments received from customers are

offset against contract assets on a project related basis and progress billings to customers are - unless they are already settled - reported under trade receivables. 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.

b) Sale of licenses

- 88 The IVU Group recognises its revenue on the basis of a corresponding contract at a certain point in time, once the license has been delivered, the sale price is fixed or determinable, there are no significant liabilities to customers and realisation of the receivables is deemed probable.

c) Maintenance, consulting and training

- 89 Revenue from maintenance contracts is recognised over a period of time 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

- 90 Proceeds from the sale of goods (hardware deliveries) are recognised at a certain point in time when delivery has taken place and the risks and rewards have been transferred to the buyer. The corresponding revenue is included in paragraph (156) under revenue for goods/services/works contracts.

e) Contract balances

- 91 **Contract assets:** A contract asset is the claim to receive consideration in exchange for goods or services, which were transferred to a customer. If the Group complies with its contractual obligations by transferring goods or services to a customer before the customer pays the consideration or before the payment is due, a contract asset is recognised for the contingent claim for consideration.
- 92 **Trade receivables:** A receivable is an unconditional claim by the Group to consideration, i.e. it becomes due automatically through the passage

of time. The accounting policies for financial assets are explained in sections (40) et seq.

- 93 **Contract liabilities:** A contract liability is the Group's obligation to transfer goods or services to a customer for which it has received consideration (or is still to receive consideration) from the latter. If the customer pays a consideration before the Group transfers goods or services, a contract liability is recognised, if the payment is made or due. Contract liabilities are recognised as revenue as soon as the Group fulfils its contractual obligations.

Income taxes

- 94 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.
- 95 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.
 - 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 offset.
- 96 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.

97 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.

- 98 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.
- 99 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

- 100 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 liabilities in the consolidated statement of financial position.

Segment reporting

- 101 No business segments that can be used as a basis for segment reporting can be derived from the reporting structure for the 2021 financial year because the IVU Group has only one reportable segment 'IVU Total' in the 2020 and 2021 financial years. The financial information on geographical segments is presented in Note F.

C. NOTES TO THE CONSOLIDATED STATEMENT OF FINANCIAL POSITION

Non-current assets

Intangible assets and property, plant and equipment

- 102 With regard to the development of non-current assets in the financial year ending 31 December 2021, reference is made to the development of intangible assets and property, plant and equipment shown in the statement of changes in fixed assets.
- 103 On 31 December 2021 and 31 December 2020, the IVU Group carried out impairment tests in line with the concept of value in use with respect to goodwill. For the impairment test, "IVU Total" is treated as a cash-generating segment. The carrying amount attributable to it for goodwill is €11,349 thousand (2020: €11,349 thousand).
- 104 The recoverable amount was calculated on the basis of the value in use, applying the discounted cash flow method (Level 3 of the fair value hierarchy in accordance with IFRS 13.86 et seq.). The impairment test is based on the cash flow forecast for the cash-generating unit over a period of five years. Beyond the planning horizon, further cash flows were included assuming growth of 2.0%

(previous year: 2.0%). Furthermore, for the detailed planning period the management is planning growth in gross profit of 3.0% on average. The cash flows shown were derived from past information and contractually agreed orders for the 2022 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. Discount rates of 11.02% before taxes (2020: 10.90%) 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% and 20% lower cash flows, discount rate adjustments after taxes by 1 and 2 percentage points and a reduction of the growth rate after the end of the detailed planning period of 0.5% and 0. This also did not give rise to impairment requirements.

Divestments in the business year/previous year

- 105 In the 2020 financial year, IVU sold all shares in its wholly owned subsidiary IVU.elect GmbH with effect from 29 May 2020. The transaction comprised all assets, liabilities and other activities attributable to this disposal. In the previous year, this resulted in sales proceeds of €5,300 thousand, the disposal of net assets of €-30 thousand and thus a selling profit of €5,330 thousand. Accounting for €147 thousand of net income, the business transactions of IVU.elect GmbH up to the date of sale were reflected in the corresponding items of the consolidated income statement in the previous year. The purchase price was paid in full in cash and the gain on disposal was recognised in other operating income. There were no divestments in the current financial year.

Investments accounted for using the equity method

- 106 For accounting policies, please see paragraphs (37) et seq.
- 107 As at 31 December 2021, the carrying amount of financial assets accounted for using the equity method was €347 thousand (2020: €385 thousand)

and includes the shares in EBS, which was founded in the financial year 2019. EBS is a joint venture which the Group manages jointly. EBS mainly operates in the development of software for the planning and control of electric buses. The joint venture is not listed on the stock exchange.

- 108 EBS was founded in the financial year 2019. It has no goodwill. In accordance with the agreement under which EBS was established, the Group has a payment obligation to the company of €854 thousand. The Group has already fully complied with this obligation until 2020.
- 109 The following table summarises the financial information of EBS for the 2021 and 2020 financial year as presented in its own financial statements:

	31 Dec 2021 € thou.	31 Dec 2020 € thou.
Ownership interest	74 %	74 %
Non-current assets	6	4
Current assets	150	9
Cash and cash equivalents	81	239
Financial liabilities	-5	-25
Non-financial liabilities	-63	-7
Net assets (100%)	169	220
Group share of net assets (74%)	125	163
Carrying amount of the share in the Group as at 31 December	347	385
	1 Jan 2021 to 31 Dec 2021	1 Jan 2020 to 31 Dec 2020
COMPREHENSIVE INCOME (100%)	-51	-286
Group share in comprehensive income (74%)	-38	-212

In the reporting year, pro rata income to be recognised amounting to €-38 thousand (2020: €-369 thousand) is recognised in the consolidated income statement.

Current assets

Inventories

- 110 Inventories are composed of merchandise and advance payments as follows:

	31 Dec 2021 € thou.	31 Dec 2020 € thou.
Merchandise	1,155	1,645
Advance payments	2,026	2,111
TOTAL	3,181	3,756

Trade receivables

- 111 Taking account of impairment, trade receivables are as follows:

	31 Dec 2021 € thou.	31 Dec 2020 € thou.
Trade receivables	20,596	20,918
Provisions for expected loss	-232	-567
TOTAL	20,364	20,351

- 112 Trade receivables do not bear interest and mature in between 0 and 90 days.

- 113 The write-downs recognised developed as follows:

	2021 € thou.	2020 € thou.
As at 1 January	567	372
Charge for the year	156	483
Utilised	-225	-70
Unused amounts reversed	-266	-218
As at 31 December	232	567

- 114 The reversal through profit or loss results from incoming payments for receivables that had been written down individually as at 31 December 2020.

- 115 The maturity structure of trade receivables was as follows as at 31 December:

	31 Dec 2021 € thou.	31 Dec 2020 € thou.
Neither past due nor impaired	16,063	15,828
Past due, not impaired		
< 30 days	2,595	3,707
31 to 60 days	543	138
61 to 90 days	449	416
> 90 days*	714	262
	4,301	4,523
AS AT 31 DECEMBER	20,364	20,351

Of which current receivables	20,364	20,351
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* of which paid by 28 February 2022: €237 thousand (previous year: €106 thousand)

Contract assets/contract liabilities

- 116 Reported contract assets relate to our contingent claims for consideration for complete performance of our contractual services. If the claim to receive consideration becomes unconditional because the project has been concluded or accepted by the customer, the amounts recognised as contract assets are reclassified into trade receivables. Contract assets are usually calculated by the ratio of costs incurred to the total planned costs (cost-to-cost method). The item includes sales revenue realised on a pro rata basis less payments received.

- 117 As at 31 December 2021, there were contract assets of €12,605 thousand (previous year: €12,684 thousand).

Contract liabilities of €18,215 thousand (previous year: €20,427 thousand) include advance payments received and deliveries and services invoiced as agreed, which exceed the corresponding sales revenues realised.

The obligations reported under contractual liabilities at the beginning of the financial year led to revenues of €8.6 million (previous year €3.0 million). IVU usually receives payments from customers on the basis of a settlement schedule, which is a component of customer contracts.

For further details of revenue from contracts with customers see paragraph (156).

- 118 There are normal warranty obligations for goods accepted under construction contracts.

Other current assets

- 119 Other current assets include €25 million in notice deposits with a notice period of at least three months and overnight deposits with banks, which are deposited to secure guarantees and are not freely available. Advance payments of income taxes during the year result in tax assets as at the reporting date. Payments to a hosting service provider to secure purchasing conditions were actively deferred over the term.

	31 Dec 2021 € thou.	31 Dec 2020 € thou.
Notice deposits	25,000	25,000
Demand deposits to secure guarantees	1,168	2,868
Receivables from tax credit	895	643
Prepaid expenses	1,801	1,519
Other	732	283
TOTAL	29,596	30,313

Cash and cash equivalents

- 120 Cash and cash equivalents nearly exclusively consist of bank balances.

	31 Dec 2021 € thou.	31 Dec 2020 € thou.
Bank balances	41,456	31,093
Cash balances	4	3
TOTAL	41,460	31,096

Equity

- 121 Please see the statement of changes in consolidated equity for details.
- 122 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 (2020: €17,719,160.00) and consists of 17,719,160 (2020: 17,719,160) no-par value shares.
- 123 By way of resolution of the Annual General Meeting on 27 May 2021, 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 26 May 2026 (2021 authorised capital). The authorisation of the Executive Board with the same content granted by resolution of the Annual General Meeting on 25 May 2016 (2016 authorised capital) was valid until 24 May 2021. The Executive Board can make use of this authorisation for any legally permissible purpose. In 2020 and 2021, the Executive Board did not make use of the authorisations.
- 124 Furthermore, by way of resolution of the Annual General Meeting on 29 May 2019, 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 by 28 May 2024. 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.

- 125 Based on this resolution, the Executive Board approved buyback programs for treasury shares in the 2020 financial year on 28 January, 9 March and 16 March. The purpose of the three buyback programs was to particularly use the shares to service Executive Board remuneration and employee participation programs. A total of 174,934 shares were repurchased at a total price of €1,965 thousand. This corresponds to 0.99% of the no-par value shares in the share capital of IVU Traffic Technologies AG. The shares were acquired exclusively via the stock exchange by a bank commissioned by the company (XETRA trading).

From the shares acquired, a total of 40,586 no-par value shares were issued (12,094 shares at an issue price of €18.12 each, 16,345 at an issue price of €20.84 each, 41 at an issue price of €20.28 each and 12,106 at an issue price of €20.00 each) for all IVU employees in Germany in the 2021 financial year. The members of the Executive Board received 14,317 shares as part of their variable remuneration at an issue price of €18.50 each. The number of shares issued corresponds to 0.31% of the no-par value shares in the share capital of IVU Traffic Technologies AG.

- 126 As at 31 December 2021, IVU AG held 211,722 treasury shares. These are deducted from equity at average acquisition cost as a separate item of €3,375 thousand (2020: €1,602 thousand).
- 127 The development of treasury shares for the financial year is therefore as follows:

	2021 shares	2020 shares
Treasury shares as at 1 January	142,074	0
Purchased in the financial year	124,551	174,934
Transferred to the Executive Board	-14,317	-19,865
Transferred to employees	-40,586	-12,995
TREASURY SHARES AS AT 31 DECEMBER	211,722	142,074

128 In view of the share buybacks and transfers, the stock of outstanding shares developed as follows:

	2021 shares	2020 shares
Shares in circulation as at 1 January	17,577,086	17,719,160
Acquisitions of own shares	-124,551	-174,934
Transfers of own shares	54,903	32,860
SHARES IN CIRCULATION AS AT 31 DECEMBER	17,507,438	17,577,086

Non-current liabilities

Pension provisions

129 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.

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

	2021 %	2020 %
Discount rate	1.31	1.00
Salary trend	2.50	2.50
Pension trend	2.00	2.00
Turnover	3.00	3.00

131 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:

	2021 € thou.	2020 € thou.
Service cost	3	4
Interest expense	51	65
EXPENSE FOR THE PERIOD	54	69

132 The following table shows the composition of pension obligations:

	2021 € thou.	2020 € thou.
Present value of pension obligations, 31 Dec	5,078	5,494
Less fair value of plan assets	199	242
PROVISIONS FOR PENSIONS	4,879	5,252

133 The following table shows the development of pension obligations:

	2021 € thou.	2020 € thou.
Present value of pension obligations, 1 Jan	5,494	5,452
Service cost	4	4
Interest expense	54	69
Pension payments	-245	-245
Actuarial gains (losses) from changes in financial assumptions recognised in equity (other income)	-185	193
Actuarial gains (losses) from experience adjustments recognised in equity (other income)	-44	21
PRESENT VALUE OF PENSION OBLIGATIONS, 31 DEC	5,078	5,494

134 The following table shows the development of plan assets:

	2021 € thou.	2020 € thou.
Fair value of plan assets, 1 Jan	242	292
Net return on plan assets	3	3
Additions to plan assets	0	0
Payments from plan assets	-160	-160
Actuarial gains recognised in equity (other income)	114	107
PLAN ASSETS, 31 DEC	199	242

135 A quantitative sensitivity analysis of the main assumptions as at 31 December 2021 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 € thou.)	-276	+ 303	+ 591

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.

- 136 The average term of defined benefit obligations as at the end of the reporting period is 11.37 years (2020: 11.99 years).
- 137 The expected return on plan assets is based on a discount factor of 1.31% (2020: 1.00%). No contributions will be paid into the plan in the next twelve months.
- 138 The plan assets are composed exclusively of cash.
- 139 The anticipated payment structure for the years 2021 to 2030 is shown below:

Pension payments made	€ thou.
2020	245
2021	245
Expected pension payments	€ thou.
2022	271
2023	273
2024	273
2025	274
2026	273
2027 - 2031	1,332

- 140 Defined contribution plans exist only in the form of the mandatory contributions by IVU AG to the state pension. Employer contributions of €3,036 thousand (2020: €2,750 thousand) were paid in the reporting year.

Lease liabilities

- 141 For information on leases including lease liabilities, please refer to paragraphs (70) et seq.

Current liabilities

Financial liabilities

- 142 IVU has the following credit facilities:

Credit facility	Utilisation 31 Dec 2021	Utilisation 31 Dec 2020
€ thou.	€ thou.	€ thou.
HSBC	1,000	0
Monte del Paschi di Siena	150	0

- 143 The revocable credit lines with Deutsche Bank AG and HSBC remain unchanged at €1,000 thousand each. The lines of credit were not utilised in the financial year. Collateral in favour of the banks has not been agreed.

- 144 Expenses for interest and commission amounted to €144 thousand (2020: €140 thousand) in the 2021 financial year.

Provisions

- 145 Provisions developed as follows:

	As at 1 Jan 2021 € thou.	Utilised € thou.	Unused amounts re-versed € thou.	Arising during the year € thou.	As at 31 Dec 2021 € thou.
Warranty	6,610	351	412	4,543	10,390
Impending loss	1,130	0	888	56	298
	7,740	351	1,300	4,599	10,688
of which current	7,740				10,688

- 146 The provisions for warranties relate to warranty risks from completed projects or completed deliveries. Contingency reserves were formed for future loss-making business due to cost developments (full cost basis).

Other current liabilities

- 147 Other current liabilities are composed as follows:

	31 Dec 2021 € thou.	31 Dec 2020 € thou.
Staff-related liabilities	8,106	8,008
Liabilities from contract risks	246	176
Liabilities social security	137	102
Liabilities from outstanding invoices	3,849	1,895
Other	117	47
	12,455	10,228
Tax liabilities (sales tax, wage tax)	2,531	2,910
TOTAL	14,986	13,138

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

Actual income taxes and deferred taxes

- 149 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 2021 was 15.1% (2020: 15.1%). The corporation tax rate for the 2020 and 2021 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 2021 financial year is 30.92% (2020: 30.92%).

- 150 Income tax expense for the current financial year breaks down as follows:

	2021 € thou.	2020 € thou.
Current tax expenses		
Current year and prior periods (expense -, income +)	-1,630	-1,889
Deferred tax income/expense		
Change to tax loss carryforwards	-2,548	-1,250
Tax-effective goodwill amortisation	0	-1
Change of right of use	445	-979
Change to long-term order production	503	580
Change of lease liabilities	-440	1,006
Change to pension provisions	-22	-19
Change to other assets	-105	-34
Change to other provisions	-410	489
	-2,577	-208
EXPENSE - / INCOME + FROM IN-COME TAXES	-4,207	-2,097

- 151 The following table shows the reconciliation of income tax expense:

	2021 € thou.	2020 € thou.
IFRS earnings (before taxes)	13,526	12,189
Tax rate	30.92 %	30.92 %
Notional income tax expense	-4,182	-3,769
Off-balance sheet tax additions/reductions	-47	194
Foreign withholding taxes	0	-52
Non-capitalized new loss carryforwards	-8	0
Utilisation of tax loss carryforwards	4	1,620
Tax expense from prior periods*	31	16
Effects of tax rate differences	10	45
At-equity valuation**	-12	-114
Other	-3	-37
CURRENT TAX EXPENSES / INCOME	-4,207	-2,097

* of which: current taxes €15 thousand (2020: €-95 thousand), deferred taxes €16 thousand (2020: € 111 thousand)

** reported under Other in the previous year

- 152 The deferred taxes reported in IVU's consolidated statement of financial position break down as follows:

	31 Dec 2021 € thou.	Delta 2021	31 Dec 2020 € thou.
Deferred tax assets			
Asset difference from offsetting of assets	1	1	0
Other assets	0	-81	81
Pension provisions	719	-108	827
Other provisions	497	-410	907
Lease liabilities	2,742	-440	3,182
Tax losses carried forward	2,809	-2,548	5,357
	6,768	-3,586	10,354
Deferred tax liabilities			
Other assets	-25	-25	0
Tax-effective goodwill amortisation	-1,738	0	-1,738
Right of use	-2,676	445	-3,121
Long-term order production	-1,584	503	-2,087
	-6,023	923	-6,946

Deferred tax assets/ liabilities, net	745	-2,663	3,408
of which affecting the income situation		-2,577	
of which equity changes		-86	
Carrying amount			
Deferred tax assets	745	-2,695	3,440
Deferred tax liabilities	0	32	-32

- 153 The IVU Group has the following tax loss carryforwards:

	31 Dec 2021 € thou.	31 Dec 2020 € thou.
Loss carryforward for German trade tax	6,543	14,838
Loss carryforward for German corporation tax	11,509	19,697

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

- 154 During the reporting year, a tax audit of IVU AG for the years 2015 to 2017 was completed. Agreement was reached on all open points. All notices for the years in question have already been issued and are final and have been taken into account accordingly in the tax items.

D. NOTES TO THE CONSOLIDATED INCOME STATEMENT

- 155 The income statement has been prepared in accordance with the total cost format.

Revenue from Contracts with Customers

- 156 Revenue is distributed to the various revenue types as follows:

	2021 € thou.	2020 € thou.
Goods/services/works contracts	35,285	38,924
Licences	30,876	21,415
Maintenance/Hosting	36,723	31,692
TOTAL	102,884	92,031

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

Of the contracts for implementation projects (for details of contract assets and contract liabilities on the reporting date, see paragraphs (116) et seq.) in place as at 31 December 2021, revenue of €46 million is likely to be realised in subsequent years, of which €19 million after more than twelve months.

Of the maintenance and hosting contracts in place as at 31 December 2021, revenue of at least €39 million is likely to be realised in the 2022 financial year.

The company makes use of the provision in IFRS 15.121(b).

Other operating income

- 157 Other operating income is composed as follows:

	2021 € thou.	2020 € thou.
Government grants	589	348
Income from the reversal of impairment losses	265	218
Exchange rate gains	124	126
Gain on disposal of subsidiaries	0	5,330
Other	352	81
TOTAL	1,330	6,103

In the current financial year, the gain from the sale of IVU.elect (see paragraph 105) is a special effect included in other operating income.

Cost of materials

- 158 Cost of materials is distributed to purchased goods and purchased services as follows:

	2021 € thou.	2020 € thou.
Cost of purchased goods	12,021	15,339
Cost of purchased services	16,414	12,433
TOTAL	28,435	27,772

Staff costs

- 159 Staff costs distribute as follows:

	2021 € thou.	2020 € thou.
Wages and salaries	42,442	39,439
Social security, post-employment and other employee benefit costs	7,373	6,765
(Of which for pensions)	3,036	2,750
TOTAL	49,815	46,204

Depreciation and amortisation on assets

160 Depreciation and amortisation on non-current assets break down into the following parts:

	2021 € thou.	2020 € thou.
On intangible assets	159	140
On rights of use	1,525	1,473
On property, plant and equipment	842	915
TOTAL	2,526	2,528

Other operating expenses

161 Other operating expenses can be distributed as follows:

	2021 € thou.	2020 € thou.
Selling expenses	1,191	1,558
Operating expenses	3,802	3,089
Administrative expenses	3,291	2,783
Other	1,233	1,424
TOTAL	9,517	8,854

Operating costs increased mainly due to internal IT projects and the rising costs of IT infrastructure. By contrast, the coronavirus pandemic led to a decrease in expenses for trade fairs and travel activities reported under selling expenses. Other expenses included price losses of €107 thousand (previous year: €272 thousand).

Financial expenses

162 The financial expenses can be distributed as follows:

	2021 T€	2020 T€
Interest expense for rights of use	102	127
Financing costs for guarantees	125	121
Interest expense banks	13	13
Other	117	10
TOTAL	357	271

Earnings per share

163 Under IAS 33, the calculation of basic earnings per share is determined by dividing the consolidated net income by the weighted number of shares. The development of treasury shares is explained in paragraph (126).

	2021	2020
Net profit / loss for the period (€ thousand)	9,319	10,092
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
Diluted earnings per share (EUR/share)	0.53 €	0.57 €
Number of circulating weighted shares (thousands)	17,567	17,597
BASIC EARNINGS PER SHARE (EUR/SHARE)	0.53 €	0.57 €

164 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.

E. NOTES TO THE STATEMENT OF CASH FLOWS

- 165 The reported cash and cash equivalents are not subject to any restriction by a third party. Invested notice deposits with a notice period of at least three months of €25.0 million (2020: €25.0 million) are included under other assets. Interest and income tax payments are reported. In accordance with the resolution of the Annual General Meeting of 27 May 2021, a dividend of €0.20 per dividend-bearing share, €3,515,000 in total, was distributed. The composition of cash and cash equivalents is shown in paragraph (120).

F. NOTES TO SEGMENT REPORTING

- 166 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 organised and managed holistically.

Geographical segment information:

- 167 The IVU Group realised 58.5%, 9.3%, 8.0% and 4.2% of its revenues in the financial year with customers in Germany, Italy, Switzerland and the Netherlands. The basis for the allocation is the location of the customer.

	GERMANY		EUROPE		OTHERS		TOTAL	
in € thousand	2021	2020	2021	2020	2021	2020	2021	2020
Revenue from transactions with external customers	60,151	45,393	40,973	45,050	1,760	1,588	102,884	92,031
Assets per region	122,055	113,649	7,495	8,187	21	73	129,571	121,909
Net deferred tax assets by region	743	3,440	1	-32	0	0	744	3,408
Investment expenditure	1,094	1,434	80	46	0	0	1,174	1,480
Depreciation	958	1,011	1,568	1,517	0	0	2,526	2,528

- 168 IVU 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. The IVU Group generated sales revenue of €19.2 million with a rail Group in the financial year (18.7% of Group sales

revenue). In the previous year, no client accounted for 10% or more of total turnover.

G. OTHER DISCLOSURES

Commitments and contingencies

Letters of credit

- 169 As at the end of the reporting period, letters of credit of €11,210 thousand, €1,927 thousand of which in foreign currency (2020: €13,040 thousand, €375 thousand of which in foreign currency) were assumed by various banks for the IVU Group.

Employees

- 170 The average number of employees of the IVU Group was 761 in the financial year (2020: 702). The breakdown of employees by function is as follows:

	2021	2020
Project work/sales	349	313
Production/software development	314	282
Administration	98	107
TOTAL	761	702

Auditing and consultancy fees

- 171 The auditor's fees recognised as expenses in the financial year amount to €120 thousand and relate

exclusively to audits of financial statements (2020: €151 thousand for audit services and €28 thousand for tax and foreign tax compliance consulting). No other services were performed by the auditor in the financial year.

Related party disclosures

- 172 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

- 173 The joint venture EBS is considered a related party. There are no other related parties.

Related persons

- 174 The following persons are considered related parties:

Executive Board members of IVU AG

- Martin Müller-Elschner (CEO and CFO)
- Matthias Rust (member of the Executive Board)
- Leon Struijk (member of the Executive Board)

Members of the Supervisory Board of IVU AG

- **Prof Herbert Sonntag**, Berlin
(Chairman of the Supervisory Board and the General Committee, Member of the Audit Committee)
Professor for Transport Logistics at the Technical University of Applied Sciences, Wildau,
Member of the Advisory Board and Honorary Member LNBB Logistiknetz Berlin-Brandenburg e.V.,
Representative for Brandenburg of the Allianz pro Schiene e.V.,
Honorary Professor at German-Kazakh University, Almaty Kazakhstan,
Visiting Professor at Georgian Technical University, Tbilisi Georgia.
- **Ute Witt**, Potsdam
(Deputy Chairwoman of the Supervisory Board and Chairwoman of the Audit Committee)
Chairwoman of the Supervisory Board of Sellutions AG, Berlin,
Member of the Supervisory Board of Charité Research Organisation GmbH, Berlin

Vice-Chairwoman, Treasurer and Head of the Budget Committee of the Berlin Chamber of Commerce and Industry (until 14 January 2022),
Member of the Tax Committee and Chairwoman of the "International Tax Issues" sub-committee of the DIHK, Berlin,
Member of the Federal Commissions for Taxes in the Economic Council of the CDU, Berlin,
Chairwoman of the Executive Board of Potsdamer Steuerforum e.V., Potsdam,
Member of the economic advisory board of the cathedral chapter Brandenburg, Brandenburg an der Havel,
Member of the examination and audit committee of Berliner Stadtmission, Berlin,
Managing Director of Ute Witt Tax Consulting UG Steuerberatungsgesellschaft, Berlin.

- **Dr Heiner Bente**, Hamburg
(Member of the General Committee)
Managing Partner, Dr. Heiner Bente Consulting, Hamburg,
Senior Advisor at civity Management Consultants, Hamburg,
Chairman of the Supervisory Board of birkle IT AG, Munich (until January 2021),
Deputy Chairman of the Advisory Board of Schürfeld Gruppe, Hamburg.
- **Prof. Barbara Lenz**, Berlin
Director of the Institute of Transport Research at the German Aerospace Centre, Berlin (until April 2021),
Professor for Traffic Geography, Humboldt University of Berlin (until April 2021, since then: Visiting Professor at Humboldt University of Berlin),
Member of the Supervisory Board of Berliner Verkehrsbetriebe (BVG),
Cluster Spokeswoman for the Transport, Mobility and Logistics Cluster of the Berlin Brandenburg states (until April 2021).
- **Benedikt Woelki**, Berlin
Support Account Manager at IVU Traffic Technologies AG, Berlin.
- **Axel Zimmermann**, Düren
(Member of the General Committee)

Quality manager at IVU Traffic Technologies AG, Aachen,
Chairman of the Works Council of IVU Traffic Technologies AG at the Aachen location,
Deputy Chairman of the General Works Council of IVU Traffic Technologies AG.

Related party transactions

- 175 There were no other business transactions between related parties and companies of the IVU Group in the reporting year or the previous year.
- 176 In the financial year 2020, Martin Müller-Elschner, CEO, sold 10,000 IVU shares on the market.

Remuneration of the Executive Board and the Supervisory Board

- 177 The Executive Board of IVU AG received remuneration of €2,015 thousand (2020: €1,817 thousand) in the 2021 financial year. The remuneration of the Executive Board comprises a fixed (€845 thousand) and a variable portion (€1,170 thousand). The variable portion amounted to 58% (2020: 59%) of total remuneration in the year under review.
- 178 Under the Long Term Incentive Plan initiated by the company, the members of the Executive Board receive shares in the company as a further variable remuneration component in addition to an annual bonus (short-term variable remuneration component). The future transfer of the shares is dependent on the positive development of the IVU share price, taking into account the performance of the TecDAX stock market index. The term of the programme will end on 31 December 2022. The physical delivery of the shares would then have to be fulfilled by IVU in the first quarter of 2023. In accordance with the principle of sustainable remuneration, the right to transfer and the number of shares actually transferred to the Executive Board depends on the economic development of the company. A maximum total of 180,000 shares can be granted, the minimum number is 0. In addition to the remuneration information mentioned above, personnel expenses of €339 thousand (2020: €339 thousand) were taken into account as a variable remuneration component for the long-term incentive plan for the members of the Executive Board during the fiscal year. Until the end of the programme in 2022, €339 thousand per year will be recognised through personnel expenses

and added to the capital reserve. Total emoluments in accordance with Section 314 no. 6 HGB amounted to €2,354 thousand (2020: € 2,156 thousand). All emoluments in the financial year were due in the short term. For further explanations, please refer to paragraphs (57) to (60).

- 179 Pension provisions of €2,382 thousand (2020: €2,585 thousand) were reported for former members of the Executive Board. Furthermore, pension payments of €151 thousand (2020: €151 thousand) were made for former members of the Executive Board.
- 180 The Supervisory Board received remuneration of €194 thousand in 2021 (2020: €135 thousand). The remuneration of the Supervisory Board does not include a performance-related component and consists of a fixed basic remuneration.
- 181 The shareholdings of the members of the Executive Board and the Supervisory Board are as follows:

	Shares 31 Dec 2021	Shares 31 Dec 2020
Executive Board		
Martin Müller-Elschner (Chairman)	239,824	233,634
Matthias Rust	21,905	17,876
Leon Struijk	25,000	20,655
Supervisory Board		
Prof. Herbert Sonntag	866,000	866,000
Ute Witt	2,000	2,000
Prof. Barbara Lenz	1,490	1,200
Benedikt Woelki	172	100
Axel Zimmermann	1,101	1,029

Supplementary Report

- 182 Since 31 December 2021, there have been no events of particular significance that have affected the situation of the Group regarding earnings, finances and assets. IVU does not currently expect the war in Ukraine to have any material, direct effect, as it has no customer or supplier relationships in Ukraine or in Russia. No effects are expected on account of the overall economic downturn but these cannot be fully ruled out.

Disclosures on the German Corporate Governance Code

- 183 The 2022 declaration of compliance was issued by the Executive Board and the Supervisory Board on 15 February 2022 and can be accessed by shareholders at all times on the IVU AG homepage (www.ivu.com/investors/corporate-governance-en) under Investor Relations.

The Executive Board

Berlin, 29 March 2022



Martin Müller-Elschner



Matthias Rust



Leon Struijk

CONSOLIDATED FIXED-ASSETS SCHEDULE

DEVELOPMENT IN INTANGIBLE ASSETS AND PROPERTY, PLANT AND EQUIPMENT 2021

	HISTORICAL ACQUISITION COSTS				
	As at	Addition	Transfer	Disposal	As at
	1 Jan 2021				31 Dec 2021
	€ thou.	€ thou.	€ thou.	€ thou.	€ thou.
I. Intangible assets					
1. Industrial property rights and licenses, software	8,008	199	0	57	8,150
2. Goodwill	14,626	0	0	0	14,626
3. Primary intangible assets	15,503	0	0	0	15,503
	38,137	199	0	57	38,279
II. Property	0	0		0	
1. Technical equipment and machinery	288	0	0	288	0
2. Other equipment, operating and office equipment	10,428	912	5	261	11,084
3. Advance payments and assets under construction	5	7	-5	0	7
	10,721	919	0	549	11,091
III. Financial assets	0	0		0	
1. Investments	385	0	0	38	347
	385	0	0	38	347
IV. Rights of use	0	0		0	
1. Real estate	12,327	13	0	34	12,306
2. Other equipment, operating and office equipment	500	43	0	179	364
	12,827	56	0	213	12,670
	62,070	1,174	0	857	62,387

DEPRECIATION				RESIDUAL BOOK VALUES		
As at 1 Jan 2021				As at 31 Dec 2021	As at 31 Dec 2021	As at 31 Dec 2020
€ thou.	Addition € thou.	Currency difference € thou.	Disposal € thou.	€ thou.	€ thou.	€ thou.
7,750	159	0	57	7,852	298	258
3,277	0	0	0	3,277	11,349	11,349
15,503	0	0	0	15,503	0	0
26,530	159	0	57	26,632	11,647	11,607
272	0	0	272	0	0	16
8,928	842	3	279	9,494	1,590	1,500
0	0	0	0	0	7	5
9,200	842	3	551	9,494	1,597	1,521
0	0	0	0	0	347	385
0	0	0	0	0	347	385
2,417	1,366	-3	34	3,746	8,560	9,910
236	159	0	179	216	148	264
2,653	1,525	-3	213	3,962	8,708	10,174
38,383	2,526	0	821	40,088	22,299	23,687

CONSOLIDATED FIXED-ASSETS SCHEDULE

DEVELOPMENT IN INTANGIBLE ASSETS AND PROPERTY, PLANT AND EQUIPMENT 2020

	HISTORICAL ACQUISITION COSTS				As at 31 Dec 2020 € thou.
	As at 1 Jan 2020 € thou.	Addition € thou.	Reclassification € thou.	Disposal € thou.	
I. Intangible assets					
1. Industrial property rights and licenses, software	7,742	267	0	1	8,008
2. Goodwill	14,626	0	0	0	14,626
3. Primary intangible assets	15,503	0	0	0	15,503
	37,871	267	0	1	38,137
II. Property					
1. Technical equipment and machinery	410	0	0	122	288
2. Other equipment, operating and office equipment	9,599	1,213	0	384	10,428
3. Advance payments and assets under construction	4	1	0	0	5
	10,013	1,214	0	506	10,721
III. Financial assets					
1. Investments	0	754	0	369	385
	0	754	0	369	385
IV. Right of use					
1. Real estate	8,088	4,239	0	0	12,327
2. Other equipment, operating and office equipment	386	210	0	96	500
	8,474	4,449	0	96	12,827
	56,358	6,684	0	972	62,070

DEPRECIATION				RESIDUAL BOOK VALUES		
As at 1 Jan 2020	Addition	Currency difference	Disposal	As at 31 Dec 2020	As at 31 Dec 2020	As at 31 Dec 2019
€ thou.	€ thou.	€ thou.	€ thou.	€ thou.	€ thou.	€ thou.
7,611	140	0	1	7,750	258	131
3,277	0	0	0	3,277	11,349	11,349
15,503	0	0	0	15,503	0	0
26,391	140	0	1	26,530	11,607	11,480
393	0	0	121	272	16	17
8,383	915	7	377	8,928	1,500	1,216
0	0	0	0	0	5	4
8,776	915	7	498	9,200	1,521	1,237
0	0	0	0	0	385	0
0	0	0	0	0	385	0
1,122	1,295	0	0	2,417	9,910	6,966
154	178	0	96	236	264	232
1,276	1,473	0	96	2,653	10,174	7,198
36,443	2,528	7	595	38,383	23,687	19,915

AUDITOR'S REPORT

Reproduction of the audit opinion

We have issued the following unqualified audit opinion, signed in Berlin on 29 March 2022, on the consolidated financial statements and the group management report of IVU Traffic Technologies AG, Berlin, for the financial year from 1 January 2021 to 31 December 2021 in the versions attached to this report as Annex I (consolidated financial statements) and Annex II (group management report) and on the electronic reproductions of the consolidated financial statements and the group management report prepared for the purpose of publication:

AUDITOR'S REPORT OF THE INDEPENDENT AUDITOR

To IVU Traffic Technologies AG, Berlin

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), which comprise the consolidated statement of financial position as of December 31, 2021, the consolidated statement of income, the consolidated statement of comprehensive income, the consolidated statement of changes in equity and the consolidated statement of cash flows for the year from January 1, 2021 to December 31, 2021 and the notes to the consolidated financial statements, including a summary of significant accounting policies.

We have also audited the group management report of IVU Traffic Technologies AG for the financial year from January 1, 2021 to December 31, 2021 audited. In accordance with German legal requirements, we have not audited the content of those parts of the group management report listed in section "Other information".

In our opinion, on the basis of the knowledge obtained in the audit

- the accompanying consolidated financial statements comply in all material respects with IFRSs as adopted by the EU and the additional requirements of German law pursuant to § 315e (1) HGB and give a true and fair view of the net assets and financial position of the Group as of December 31, 2021 and of its results of operations for the fiscal year from January 1, 2021 to December 31, 2021 and
- the accompanying group management report as a whole provides an appropriate view of the group's position. In all material respects, this group management report is consistent with the consolidated financial statements, complies with German legal requirements and appropriately presents the opportunities and risks of future development. Our opinion on the group management report does not cover the content of those parts of the group management report listed in section "Other information".

Pursuant to § 322 (3) sentence 1 HGB, we declare that our audit has not led to any reservations relating to the legal compliance of the consolidated financial statements and the Group management report.

Basis for the audit opinions

We conducted our audit of the consolidated financial statements and the group management report in accordance with Section 317 HGB and the EU Regulation on Auditors (No. 537/2014; hereinafter "EU Audit Regulation") and German generally accepted standards for the audit of financial statements promulgated by the Institut der Wirtschaftsprüfer (IDW). Our responsibility under those provisions and principles is further described in the section "Responsibility of the executive directors and the supervisory board for the consolidated financial statements and the group management report" of our auditor's report. We are independent of the Group companies in accordance with European law and German commercial and professional regulations and have fulfilled our other German

professional obligations in accordance with these requirements.

In addition, in accordance with Article 10 (2) point (f) of the EU Audit Regulation, we declare that we have not provided non-audit services prohibited under Article 5 (1) of the EU Audit Regulation.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion on the consolidated financial statements and the group management report.

Key audit matters in the audit of the consolidated financial statements

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the consolidated financial statements for the fiscal year from January 1, 2021 to December 31, 2021. These matters were considered in the context of our audit of the consolidated financial statements as a whole, and in forming our opinion thereon; we do not provide a separate opinion on these matters.

We have identified the following matter as key audit matter:

Revenue Recognition

Matter

IVU Traffic Technologies AG reports revenues of EUR 102.9 million in the consolidated financial statements as of December 31, 2021. The revenues result from the sale and provision of software, the delivery of hardware, the provision of maintenance and hosting services, and other services.

IVU Traffic Technologies AG and its subsidiaries regularly conclude contracts with their customers that contain various service components, such as software licenses, hardware deliveries, implementation services and maintenance services. The accounting treatment of these contracts requires an assessment by the Company as to which separable performance obligations exist. In many cases, individual components do not have an independent benefit or represent input factors for an overall service promise, so that they must be combined into one service obligation. Revenue from services or combined projects, the provision of software (software as a service), and maintenance and hosting services is recognized over time; revenue from the sale of licenses and hardware that are not combined with services is recognized at a point in time. There is a high degree of discretion both with

regard to the determination of performance obligations and with regard to the determination of the stage of completion of longer-term projects. Revenue is a key performance indicator for the Company and there is a risk that revenue may be recognized too early or in an inaccurate amount.

Due to the high significance of revenue for the assessment of the Group's results of operations, the complexity of revenue recognition and the degree of judgment involved, this is a key audit matter.

The revenue recognition disclosures of IVU Traffic Technologies AG are included in the notes to the consolidated financial statements in the section revenue from contracts with customers.

Auditors response and observations

We assessed the appropriateness of the processes and controls established by the Group to ensure proper revenue recognition in accordance with IFRS 15. For selected controls, in particular with regard to the identification of performance obligations, the point in time recognition of revenue, and the correct allocation of costs in connection with the estimation of the stage of completion of projects, we tested the operating effectiveness of the controls.

With regard to the audit of revenue from combined projects, for a risk-based selection of projects classified as not yet completed, we reconciled the recognized revenue and the corresponding contract assets and contract liabilities to the Group's respective calculation. We traced the determination of the percentage of completion based on the project budget and costs incurred, assessed the assumptions used in estimating the costs to complete, inspected the contractual bases and verified their inclusion in the client's calculations. Furthermore, we examined the costs included in the calculation of the progress of work on a sample basis, reviewed payments made and verified their mathematical correctness.

For a sample of completed projects and software and hardware sales, we reconciled recognized revenue to the contractual bases, invoices, and appropriate performance evidence.

With regard to maintenance and hosting revenue, we analyzed the development of revenue over time and examined any anomalies in the development. For a sample of revenues recognized in the financial year, we compared and verified the calculation of the revenues to be recognized and deferred with the contractual bases.

Based on our audit procedures, we were able to satisfy ourselves that revenue recognition was appropriate. We were able to understand the assumptions and judgments of the executive directors underlying the recognition of revenue from the provision of services with regard to the determination of the performance obligations and the determination of the stage of completion.

Other information

The executive directors or the Supervisory Board are responsible for the other information. The other information includes:

- the non-financial group statement contained in section B of the group management report
- the separately published corporate governance statement referred to in section E. of the management report
- the other parts of the annual report, with the exception of the audited consolidated financial statements and group management report and our audit opinion
- the information contained in the group management report that is not part of the management report and is marked as unaudited

Our audit opinions on the consolidated financial statements and the group management report do not cover the other information and, accordingly, we do not express an opinion or any other form of conclusion on it.

In connection with our audit of the consolidated financial statements, we have a responsibility to read the other information and, in doing so, evaluate whether the other information is

- are materially inconsistent with the consolidated financial statements, the group management report or our knowledge obtained in the audit, or
- otherwise appear to be materially misrepresented.

If, based on our work, we conclude that there has been a material misstatement of such other information, we are required to disclose it. We have nothing to report in this regard.

Responsibility of the executive directors and the supervisory board for the consolidated financial statements and the group management report

Management is responsible for the preparation and fair presentation of these consolidated financial statements in accordance with IFRSs as adopted by the EU and the additional requirements of German law pursuant to Section 315e (1) HGB and for such internal control as management determines is necessary to

enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error. Furthermore, management is responsible for such internal control as management determines is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, the executive directors are responsible for assessing the Group's ability to continue as a going concern. They are also responsible for disclosing, as applicable, matters related to going concern. Furthermore, they are responsible for preparing the financial statements on a going concern basis unless there is an intention to liquidate the group or to cease operations, or there is no realistic alternative but to do so.

Furthermore, the executive directors are responsible for the preparation of the group management report that, as a whole, provides an appropriate view of the group's position and is, in all material respects, consistent with the consolidated financial statements, complies with German legal requirements, and appropriately presents the opportunities and risks of future development. In addition, the executive directors are responsible for such arrangements and measures (systems) as they have considered necessary to enable the preparation of a group management report/combined management report that is in accordance with the applicable German legal requirements, and to be able to provide sufficient appropriate evidence for the assertions in the group management report/combined management report.

The supervisory board is responsible for overseeing the group's financial reporting process for the preparation of the consolidated financial statements and of the group management report/combined 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 about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and whether the group management report as a whole provides an appropriate view of the group's position and, in all material respects, is consistent with the consolidated financial statements and the knowledge obtained in the audit, complies with

German legal requirements, and appropriately presents the opportunities and risks of future development, and to issue an auditor's report that includes our audit opinions on the consolidated financial statements and the group management report.

Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with § 317 HGB and the EU Audit Regulation and in compliance with German generally accepted standards for the audit of financial statements promulgated by the Institut der Wirtschaftsprüfer (IDW) will always detect a material misstatement. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements and the group management report.

We exercise professional judgment and maintain professional skepticism throughout the audit. We also

- identify and assess the risks of material misstatement of the consolidated financial statements and of the group management report/combined management report, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our audit opinions. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- obtain an understanding of internal control relevant to the audit of the consolidated financial statements and of arrangements and measures (systems) relevant to the audit of the group management report in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an audit opinion on the effectiveness of these systems.
- evaluate the appropriateness of accounting policies used by the executive directors and the reasonableness of estimates made by the executive directors and related disclosures.
- conclude on the appropriateness of the executive directors' use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to

draw attention in the auditor's report to the related disclosures in the consolidated financial statements and in the group management report or, if such disclosures are inadequate, to modify our respective audit opinions. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the group to cease to be able to continue as a going concern.

- evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements present the underlying transactions and events in a manner that the consolidated financial statements give a true and fair view of the assets, liabilities, financial position and financial performance of the group in compliance with IFRSs as adopted by the EU and the additional requirements of German commercial law pursuant to § 315e (1) HGB.
- obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the group to express audit opinions on the consolidated financial statements and on the group management report. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinions.
- evaluate the consistency of the group management report with the consolidated financial statements, its conformity with [German] law, and the view of the group's position it provides.
- perform audit procedures on the prospective information presented by the executive directors in the group management report. On the basis of sufficient appropriate audit evidence we evaluate, in particular, the significant assumptions used by the executive directors as a basis for the prospective information, and evaluate the proper derivation of the prospective information from these assumptions. We do not express a separate opinion on the prospective information and on the assumptions used as a basis. There is a substantial unavoidable risk that future events will differ materially from the prospective information.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide those charged with governance with a statement that we have complied with the relevant independence requirements and communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, the related safeguards.

From the matters communicated with those charged with governance, we determine those matters that were of most significance in the audit of the consolidated financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter.

OTHER LEGAL AND REGULATORY REQUIREMENTS

Report on the assurance of the electronic reproductions of the consolidated financial statements and the group management report prepared for publication purposes in accordance with section 317 (3A) HGB.

Assurance opinion

In accordance with Section 317 (3a) HGB, we have performed a reasonable assurance engagement to determine whether the reproductions of the consolidated financial statements and the group management report (hereinafter the "ESEF documents") contained in the file "Name of ESEF file" (SHA256 hash value: please copy the hash value here) and prepared for publication purposes complies in all material respects with the requirements of § 328 (1) HGB for the electronic reporting format ("ESEF format"). In accordance with German legal requirements, this audit extends only to the conversion of the information in the consolidated financial statements and the group management report into the ESEF format and therefore neither to the information contained in these reproductions nor to any other information contained in the aforementioned file.

In our opinion, the reproductions of the consolidated financial statements and the group management report contained in the aforementioned file and prepared for publication purposes comply, in all material respects, with the electronic reporting format

requirements of Section 328 (1) HGB. Beyond this assurance opinion and our audit opinion on the accompanying consolidated financial statements and the accompanying group management report/combined management report for the financial year from January 1, 2021 to December 31, 2021 contained in the "Report on the audit of the consolidated financial statements and of the group management report" above, we do not express any assurance opinion on the information contained within these reproductions or on the other information contained in the file identified above.

Basis for the assurance opinion

We conducted our assurance work of the reproductions of the consolidated financial statements and the group management report contained in the above-mentioned file in accordance with Section 317 (3a) HGB and IDW Auditing Standard: Audit of Electronic Reproductions of Financial Statements and Management Reports Prepared for Disclosure Purposes in Accordance with Section 317 (3a) HGB (IDW PS 410 (10.2021)). Our responsibility in accordance therewith is further described in the section "–Auditor's Responsibility for –the Assurance work on the ESEF Documents". Our audit firm applies the IDW Standard on Quality Management 1: Requirements for Quality Management in the Audit Firm (IDW QS 1).

Responsibility of the executive directors and the supervisory board for the ESEF documents

The executive directors of the company are responsible for the preparation of the ESEF documents containing the electronic reproductions of the consolidated financial statements and the group management report in accordance with section 328 (1) sentence 4 no. 1 of the HGB and for the award of the consolidated financial statements in accordance with section 328 (1) sentence 4 no. 2 of the HGB.

In addition, the executive directors of the company are responsible for such internal controls that they consider necessary to enable the preparation of ESEF documents that are free from material intentional or unintentional non-compliance with the requirements of Section 328 (1) HGB regarding the electronic reporting format.

The Supervisory Board is responsible for overseeing the process of preparing the ESEF documents as part of the financial reporting process.

Auditor's Responsibility for the Audit of the ESEF Documents

Our objective is to obtain reasonable assurance about whether the ESEF documents are free from material intentional or unintentional non-compliance with the requirements of Section 328 (1) HGB. During the audit we exercise professional judgment and maintain a critical attitude. We also

- identify and assess the risks of material intentional or unintentional non-compliance with the requirements of § 328 (1) HGB, design and perform assurance procedures responsive to those risks, and obtain assurance evidence that is sufficient and appropriate to provide a basis for our assurance opinion.
- obtain an understanding of internal control relevant to the assurance on the ESEF documents in order to design assurance procedures that are appropriate in the circumstances, but not for the purpose of expressing an assurance opinion on the effectiveness of these controls.
- evaluate the technical validity of the ESEF documents, i.e. whether the file containing the ESEF documents meets the requirements of the Delegated Regulation (EU) 2019/815, in the version in force at the date of the financial statements, on the technical specification for this electronic file.
- evaluate whether the ESEF documents provide an XHTML reproduction with content equivalent to the audited consolidated financial statements and to the audited group management report.
- evaluate whether the tagging of the ESEF documents with Inline XBRL technology (iXBRL) in accordance with the requirements of Articles 4 and 6 of the Delegated Regulation (EU) 2019/815, in the version in force at the date of the financial statements, enables an appropriate and complete machine-readable XBRL copy of the XHTML rendering.

Other disclosures pursuant to article 10 EU APrVO

We were elected as group auditor by the Annual General Meeting on May 27, 2021. We were appointed by the Supervisory Board on June 15, 2021. We have served as group auditor of IVU Traffic Technologies AG, Berlin, without interruption since the financial year 2021.

We declare that the audit opinions contained in this auditor's report are consistent with the additional

report to the Audit Committee pursuant to Article 11 EU-APrVO (long-form audit report).

In addition to the financial statement audit, we have provided to group entities the following services that are not disclosed in the consolidated financial statements or in the group management report:

- Evaluation of the conversion to electronic invoice workflow with archiving of electronic documents and paper documents.

Other matters – use of the audit opinio

Our auditor's report must always be read together with the audited consolidated financial statements and the audited group management report as well as the assured ESEF documents. The consolidated financial statements and the group management report converted to the ESEF format — including the versions to be published in the Federal Gazette — are merely electronic reproductions of the audited consolidated financial statements and the audited group management report and do not take their place. In particular, the ESEF report and our assurance opinion contained therein are to be used solely together with the assured ESEF documents provided in electronic form.

Auditor in charge

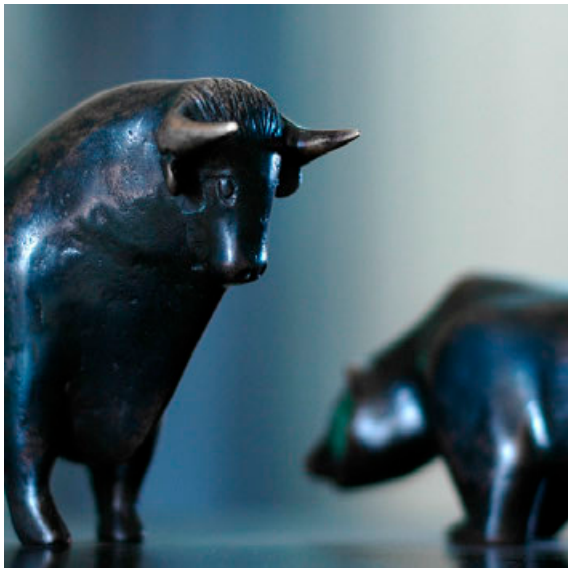
The auditor responsible for the audit is Andreas Blohm.

Berlin, March 29, 2022

BDO AG
Wirtschaftsprüfungsgesellschaft

Sartori
Public Auditor

Blohm
Public Auditor



FINANCIAL CALENDAR 2022

THURSDAY, 31 MARCH 2022

Annual Report 2021

TUESDAY, 24 MAY 2022

Quarterly report as at 31 March

WEDNESDAY, 25 MAY 2022

Annual General Meeting

THURSDAY, 25 AUGUST 2022

Half-year report as at 30 June

THURSDAY, 17 NOVEMBER 2022

Quarterly report as at 30 September

BOARDS

Supervisory Board

- Prof. Herbert Sonntag (Chairman)
- Ute Witt
- Dr Heiner Bente
- Prof. Barbara Lenz
- Benedikt Woelki, IVU
- Axel Zimmermann, IVU

Executive Board

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

Advisory Board

- Prof. Manfred Boltze, Darmstadt
- Alain Flausch, Brüssel (BE)
- Bert Meerstadt, Bussum (NL)
- Prof. Adolf Müller-Hellmann, Köln
- Prof. Ronald Pörner, Berlin
- Volker Sparmann, Hofheim am Taunus

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Publisher

IVU Traffic Technologies AG

The Annual Report 2021 can be downloaded in English and German as PDF file at www.ivu.com.

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Editorial

IVU Corporate Communications

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