

ANNUAL REPORT **2022**



KEY FIGURES

Overview

CONSOLIDATED FINANCIAL STATEMENTS IN LINE WITH IFRS

	2018	2019	2020	2021	2022	Change 2022 to 2021
Revenue	77.8	88.8	92.0	102.9	113.2	+ 10.3
Gross profit	52.1	62.1	70.4	75.8	90.6	+ 14.8
Personnel expenses	33.9	39.7	46.2	49.8	60.3	+ 10.5
EBIT	6.7	10.5	12.8	13.9	14.9	+ 1.0
Consolidated net loss / profit	6.2	10.6	10.1	9.3	10.1	+ 0.8
Cash flow from operating activities	12.3	12.5	30.8	19.1	4.5	-14.6
Free cash flow	9.8	8.0	1.8	10.4	-18.4	-28.8

KEY FIGURES

	2018	2019	2020	2021	2022
Equity ratio (Equity/Total assets)	61 %	54 %	50 %	52 %	53 %
EBIT/Revenue	8.6 %	11.8 %	13.9 %	13.5 %	13.1 %
EBIT/Gross profit	12.9 %	16.9 %	18.2 %	18.4 %	16.4 %
Dividend (€/Share)	0.12	0.16	0.20	0.22	0,24*
Full-time equivalents as annual average	458	496	572	621	697
Gross profit per FTE (in € thousand)	114	125	123	122	130

* Proposal to the Annual General Meeting

LETTER TO THE SHAREHOLDERS

Dear shareholders,

In 2022, IVU again had the most successful fiscal year in its history. Revenue rose by 10.1% to €113.2 million, and gross profit, which reflects the added value of IVU, even increased by 19.5% to €90.6 million. EBIT went up by 6.7% to €14.9 million, again setting a new record. We would like to share this considerable success with you, as we have done in previous years, and will therefore be proposing an increased dividend of €0.24 at the Annual General Meeting.

After three years of the coronavirus pandemic, public transport has recovered noticeably and is likely to return to the fast track in the coming year. The introduction of Germany's €49 public transport ticket is imminent, and the European Fit for 55 package, which is aiming to reduce greenhouse gas emissions by 55% by 2030, is placing significant emphasis on the transport sector.

A lot happened at IVU, too, in 2022. With our new subsidiaries in Sweden and Hungary, we can now offer our existing customers even better service in their local areas, while also attracting new transport companies for the IVU.suite. Thanks to the takeover of LBW Optimization GmbH, we have also continued to expand our top spot in operational optimisation of buses and trains. Then there is the comprehensive framework contract with Daimler Buses, which is immediately providing our customers with electric buses and software from a single source.

In the European railway sector, IVU continues to go from strength to strength. The successful final acceptances with DB Regio and DB Fernverkehr, for example, are proof that IVU is capable of handling even the most demanding of IT projects. The deregulation of railway markets in many European countries is also encouraging more major customers, such as Transdev in France and ILSA Rail in Spain, to rely on IVU.rail going forward. This is topped off by international projects and launches, for example with the state railways in Denmark and Sweden and the Elizabeth line in London.



At the same time, we have acquired major new customers in the local urban transport segment. Since last year, IVU.suite is now operating in over 600 buses in the Peruvian capital of Lima and in 54 trams in Utrecht in the Netherlands.

We further expanded our company ranks with more highly qualified engineers in the past year to ensure that we are prepared for future growth. Our employees are our most important resource, and we are proud of the fact that we are continuing to recruit so many specialists for IVU in this highly competitive labour market.

Public transport is one of the most important pillars of the fight against climate change, and, in turn, digitalisation is one of the most important pillars of public transport. Our products are enabling local and long-distance transport services that are efficient and attractive. This is the active contribution we are making to protecting the climate. IVU is and will remain a sustainable investment.

We are confident that IVU will continue to earn your loyalty in 2023.

Yours sincerely,

THE EXECUTIVE BOARD

Berlin, March 2023

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 2022 fiscal 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 our advisory capacity during the past year, we dealt in particular with the continued growth of IVU and the organisational adaptations. The areas we focused on also included IT security and data protection measures, M&A activities and business plans.

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 in person were held in 2022. The dates in question were 31 March, 24 May, 25 August and 17 November. In addition, a strategy meeting was held in person on 18 November to discuss the business plan for the years ahead. The Supervisory Board committees also met regularly; six committee meetings were held altogether, five of which took place online.

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.

Supervisory Board member	Meeting attendance incl. meetings of the committees	Meeting attendance in %
Prof. Herbert Sonntag (Chairman)	11/11	100
Ute Witt (Deputy Chairwoman)	8/8	100
Dr Heiner Bente	8/8	100
Prof. Barbara Lenz	5/5	100
Benedikt Woelki	5/5	100
Axel Zimmermann	8/8	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 and meetings also took place between the members of the Supervisory Board for the purposes of sharing information and preparing decisions.

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 the 2022 fiscal year
- Approving the 2021 consolidated financial statements
- Adopting the 2021 separate financial statements
- Preparing the 2022 Annual General Meeting
- Liquidity planning
- Discussing the 2022 quarterly financial statements
- M&A activities
- Personnel development
- Compliance management
- Risk management
- Safety management
- Sustainability
- Major projects and their economic impacts on the company
- Cooperation and partnerships
- Determining the focal points of the audit with the auditor for the 2022 annual financial statements (separate and consolidated financial statements)

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 2022 fiscal year:

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

In the past fiscal year, the **General Committee** dealt with fundamental questions relating to the company, especially with strategy planning, 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 three times at scheduled meetings in the course of the fiscal year.

In the past fiscal 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, compliance, sustainability reporting and the auditing of financial statements, and the requirements presented by legislative changes and the impact of these on IVU. The committee met three times in 2022, where one meeting was used to discuss the outcome of the audit of the 2021 annual and consolidated financial statements with the auditor. The other meetings covered legislative changes and their impacts on reporting and the audit of the non-financial report as well as the work of the Supervisory Board and setting out the focal points of the 2022 audit of the annual financial statements.

Training and professional development measures

In the past fiscal 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 2022, 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.

2022 annual and consolidated financial statements

The Audit Committee has considered in detail the annual financial statements of IVU Traffic Technologies AG, the consolidated financial statements as at 31 December 2022 as well as the respective management reports together with the auditors of BDO AG

Wirtschaftsprüfungsgesellschaft. At the accounts meeting on 29 March 2023, the Audit Committee recommended that the other members of the Supervisory Board approve the consolidated financial statements and adopt the separate financial statements of the AG. At this meeting, the Supervisory Board considered the annual financial statements of IVU Traffic Technologies AG, the consolidated financial statements as at 31 December 2022 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, the Supervisory Board

approved both the consolidated financial statements and the separate financial statements of the AG.

Berlin, 29 March 2023

For the Supervisory Board



Prof. Herbert Sonntag
Chairman of the Supervisory Board

THE MEMBERS OF THE SUPERVISORY BOARD

Shareholder representatives

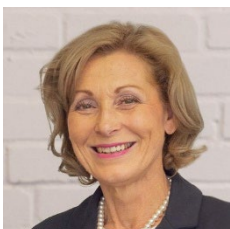


Prof. Herbert Sonntag, Berlin

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

Activities and mandates:

- Deputy Chairman of the IVU Foundation for People, Nature and Climate Protection, Berlin,
- Professor of Transport Logistics at Technical University (TH) Wildau,
- Advisory board and honorary member of LNBB Logistiknetz Berlin-Brandenburg e.V., Wildau,
- Representative for Brandenburg of Allianz pro Schiene e.V., Berlin,
- Honorary Professor at German-Kazakh University, Almaty, Kazakhstan,
- Visiting Professor at 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, Berlin,
- Deputy Chairwoman of the Supervisory Board and Chairwoman of the Audit Committee of Charité Research Organisation GmbH, Berlin,
- Member of the Supervisory Board of Schöler Fördertechnik AG, Rheinfelden,
- Member of the Finance and Tax Committee and Chairwoman of the "International Tax Issues" Subcommittee of the Chamber of Commerce and Industry, Berlin,
- Member of the Economic Advisory Board of Domstift Brandenburg, Brandenburg a.d.H.,
- Member of the Audit Committee of Berliner Stadtmission, 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,
- 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 Centre, Berlin,
- Professor for Traffic Geography at Humboldt University of Berlin,
- Visiting Professor for Traffic Geography at Humboldt University of Berlin,
- Member of the Supervisory Board and the Audit Committee of Berliner Verkehrsbetriebe (BVG), Berlin,
- Member of acatech (National Academy of Science and Engineering) – Deutsche Akademie der Technikwissenschaften e.V., Munich.

Employees representatives



Benedikt Woelki, Berlin

Activities and mandates:

- Customer Service Rail team leader 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.

INTERVIEW WITH THE EXECUTIVE BOARD

IVU has had another extremely positive year. What are the main factors behind this enduring success?

MARTIN MÜLLER-ELSCHNER: The primary factor remains the people who are working to continuously improve our end-to-end solution and whose considerable hard work made it another record year for our company. It is thanks to our now 800 employees that IVU.suite is already the industry standard in many areas and has an excellent reputation in our industry. And aside from product functionality, human interaction is key to its success as well.

The coronavirus pandemic was a lot less drastic in 2022 than in previous years. What effect has the easing of restrictions had on the company's day-to-day operations?

MARTIN MÜLLER-ELSCHNER: We have particularly enjoyed attending events in person and visiting our customers after pressing the pause button for two years. There is simply nothing that can replace face-to-face contact. I was particularly impressed by the positive upbeat mood at InnoTrans – our industry remains highly motivated to work together and push full stream ahead with transforming transport. And the highlight of the year was our Christmas party, which we finally got to attend for real and with our own band.

IVU opened five new locations altogether in 2022. What are your hopes for the individual branches?

LEON STRUIJK: We have different goals that we want to pursue with each location. Our new subsidiaries in Stockholm and Budapest, for example, will primarily enable us to form closer contacts with partners and existing customers in these countries. Our new locations in Leipzig and Poznan are mainly development locations where we are looking to recruit highly qualified engineers and further improve our standard products. Then there are our new offices in the centre of Rome, which have just been occupied by the now 30 employees of IVU Italia.

IVU entered into a comprehensive framework contract with Daimler Buses last year. What does this partnership look like exactly?

MATTHIAS RUST: Thanks to the comprehensive framework contract with Daimler Buses, we are now in a position to make things a lot easier for transport companies as they move toward electric mobility. Customers will now get Mercedes-Benz eCitaro buses and our customised software from a single source, hassle-free. We are also going to use our combined expertise to jointly develop innovative solutions for the public transport of the future. Working with Daimler Buses, we would like to make a substantial contribution to the European Green Deal and make Europe climate neutral by 2050. The transport of the future will either be hydrogen-powered or electric.

The software industry thrives on innovations. What were the key developments at IVU in 2022?

MATTHIAS RUST: In terms of electric mobility, I'd like to highlight our integrated load, charging and depot management solution, which we are using to help transport operators move over to electric mobility in just three steps. Irrespective of their fleet size – whether it's 10 electric buses or large mixed fleets comprising over 1,000 vehicles. Another product development that is hugely significant for us is our new integrated rail control centre. In addition to our world-leading planning and dispatch solutions offered by IVU.rail, we can now also give our rail customers an integrated disruption management and reliable real-time information feature in a consistent digital workflow. Two of our customers, SWEG in Baden-Württemberg and Regionalverkehr Start Deutschland, are already deploying the rail control centre productively. We have also launched the fifth generation of the biggest-selling on-board computer in Germany – IVU.ticket.box. It allows transport companies to handle selling and checking tickets in an integrated process as well as coordinate driving operations.



In your opinion, which current trends and tendencies are going to shape public transport over the next few years?

MARTIN MÜLLER-ELSCHNER: We continue to benefit from the ongoing trend toward more digitalisation, standardised systems and greater efficiency – this is ultimately what IVU.suite epitomises. In terms of transport policy, the €49 public transport ticket that will be valid throughout Germany is a huge opportunity to bolster German public transport for the long term. In Europe, too, numerous factors like the Green Deal, the switchover to alternative drive systems and the deregulation of the railway sector are continuing to play into our hands.

IVU has acquired LBW Optimization GmbH and a 20% stake in TRENOLab srl. What benefits are you hoping this will bring?

LEON STRUIJK: We have been working together in a successful partnership with LBW for many years, but for the longer term, we wanted exclusive access to its optimisation algorithms, which are the best in the world in our industry. With the LBW team behind us, we are now in an excellent position for the future and can further enhance the optimisation algorithms for IVU.suite. The main purpose of our acquired stake in TRENOLab, too, is to expand the functional scope of

our standard solution. Thanks to TRENOLab's tools, in the future, our railway customers will benefit from having a runtime calculator and a timetable design and simulation function seamlessly integrated into IVU.rail.

What are your objectives and expectations for 2023?

MARTIN MÜLLER-ELSCHNER: The continuous evolution of our systems, the long-term framework contracts we have in place with European state railways and the significant interest we are getting from many prospective new customers from the bus and rail sectors continue to give us reason to be very optimistic about the future. Despite our rapid growth, it is hugely important to us to maintain our IVU culture across all our locations. IVU stands for open doors, collegiality and meaningful work in an innovative working environment – these are aspects of our culture that we want to retain at all costs.

IVU WORLDWIDE

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





Selected references

GERMANY

DB Fernverkehr manages its entire train fleet with more than 1,400 trains with IVU.rail.

UNITED KINGDOM

In its biggest ever technology change programme, Arriva Rail London has successfully implemented IVU's end-to-end solution.

PERU

The operators of the transport system in Lima implemented IVU.cockpit for over 600 buses.

SWEDEN

SJ dispatches all its trains and more than 3000 employees with IVU.rail.

DENMARK

DSB plan and dispatch Copenhagen's entire suburban rail transport with the standard solution from IVU.

HIGHLIGHTS 2022





Projects

"IT systems such as IVU.rail make it possible for us to resolve challenges in the daily planning for our trains with the best possible solutions for travellers," said Dr Daniela Gerd tom Markotten, DB Board Member for Digitalisation and Technology.



Market leader.

IVU.rail is the worldwide leading IT system for rail transport.



DB Fernverkehr controls entire train fleet with IVU.rail

Efficient vehicle scheduling, optimum vehicle deployment, fast conflict management – from now on, DB Fernverkehr will be controlling all its trains with the worldwide leading IT system for rail transport – IVU.rail. After successfully introducing the timetable planning, vehicle working scheduling, and construction site planning, the vehicle dispatch has now been productively implemented for the entire rail fleet, consisting of a total of 210 locomotives, 1,100 passenger carriages, and around 360 multiple unit trains.

DB Fernverkehr now plans and dispatches around 1,400 train trips each day – integrated into their own existing system landscape. IVU.rail makes it possible to resolve challenges in the daily planning with the best possible solution. This allows DB Fernverkehr to control transport more efficiently and reduce delays. This contract is one of the largest in IVU's history.

S-Train Copenhagen plans and dispatches with IVU.rail

Optimum vehicle working scheduling and disruption management around the clock – Danske Statsbaner (DSB) plan and dispatch Copenhagen's entire suburban rail transport with IVU.rail. On the basis of a long-term framework agreement, DSB are building a new digital production platform together with IVU in order to be able to deploy trains and train personnel more quickly and flexibly. DSB already plan and dispatch all vehicles in Copenhagen's suburban rail transport with IVU.rail, and personnel deployment will also be controlled with IVU's standard software in the next step. DSB can already create optimal timetables and vehicle workings in just one system and are able to react quickly in the event of disruptions.



Sweden: SJ and IVU plan long term cooperation

Convenient train path management and a long-term cooperation – SJ dispatches the entire train fleet and more than 3,000 employees with the standard system IVU.rail. SJ AB, as Sweden's largest railway company, connects not only people in Sweden but throughout Scandinavia – from Copenhagen in the south to Northern Sweden, the railway company services up to 400 different stations every day. SJ trusts in IVU.rail to establish a digital workflow from planning to dispatch and intends to deepen a long-term cooperation based on a software-as-a-service (SaaS) model including the IVU.cloud.

IVU.rail supports railway companies around the world to optimally deploy vehicles and employees, provide information to millions of passengers and manage transport contracts.



Market entry in Spain: ILSA opts for IVU.rail

Efficient planning and dispatch of all vehicles and personnel – Intermodalidad de Levante S.A. (ILSA) is the first Spanish railway customer to opt for the integrated standard system IVU.rail. ILSA is the first private railway company with high-speed trains in Spain and transports passengers from Madrid to Barcelona since November 2022, equipped with iryo trains based on the Frecciarossa ETR1000. In order to be able to introduce IVU.rail in just three months, IVU and FSTechnology implemented the entire system from the IVU.cloud already used by Trenitalia.

IVU.rail goes live at Arriva Rail London

Efficient rostering and control support in one connected hub – Arriva Rail London has gone live with the integrated resource planning system IVU.rail from IVU Traffic Technologies. Arriva Rail London operates the London Overground network on behalf of Transport for London. The railway company has rolled out IVU.rail to optimise its planning tools and standardise processes. This means Arriva Rail London always has up-to-date information, allowing them to react to disruptions more quickly and provide their customers with an even better service. The successful rollout has further strengthened IVU's market position in the UK.



SWEG and IVU agree on strategic partnership

SWEG (Südwestdeutsche Landesverkehrs-GmbH) and IVU have agreed to start a long-term strategic partnership to modernise bus and rail transport in Baden-Wuerttemberg and develop innovative solutions for the mobility of the future together. In future, SWEG will control their entire bus and rail operation with IVU.suite and through this establish a continuous digital workflow.



IVU.suite for the fully electric Mercedes-Benz eCitaro

Optimal load, charging, and depot management system for Mercedes-Benz eCitaro: Daimler Buses and IVU have concluded a comprehensive framework agreement for the joint development of innovative solutions for the public transport of the future. The combined expertise of the two companies already ensures, for example, that hardware and software are integrated into a standardised overall eMobility system, thus supporting transport operators on their way to electromobility. From now on, fully electric Mercedes-Benz buses – with the bespoke IVU.suite software solution – can be ordered and efficiently deployed on the road.



Automated charging management for DVG

DVG uses 57 trains and 101 buses to transport passengers across Duisburg, between the largest inland port in the world in the middle of the Ruhr area and the Landschaftspark Duisburg-Nord – a public former industrial park, reclaimed by nature. Since March 2022, passengers are able to travel on the first electric buses from EvoBus. In order to charge the new electric buses in the best possible way, DVG is using the load and charging management system IVU.suite.



Integrated Fleet Management for the Province of Utrecht

With its 54 bidirectional trams, the Utrechtse sneltram carries around 40,000 passengers a day in Utrecht, the most important public transport hub in the Netherlands. In order to automate fleet management and to keep passengers up to date with the latest information, the Province of Utrecht, as the owner of its trams is relying on the IVU.suite. In addition, IVU takes over the hosting and maintenance of the software in the IVU.cloud – with a contract term of up to 30 years. Now, the Province of Utrecht has an integrated standard system at its disposal that enables seamless communication between the control centre, drivers and passengers.

IVU.cockpit for more than 600 buses in Lima, Peru

With a population of more than 8.5 million people, Peru's capital Lima is one of the largest cities in South America and the cultural and economic centre of the country. To connect the people in the metropolis, the transport authority Autoridad de Transporte Urbano para Lima y Callao (ATU) provides customer-friendly and environmentally-friendly bus transit. In order to automatically transmit dispatch-related modifications to drivers and to obtain passenger information in real time, IVU.cockpit was introduced in more than 600 buses in Lima. This way, the participating bus companies can dispense with permanently installed on-board computers and manage everything that is necessary for driving via tablet.



An integrated, one-stop solution: IVU.suite offers the right support for all fields of activity of bus and rail companies.

News and Events



InnoTrans 2022. Exciting topics and top-level exhibitors – after a four-year break, the world’s top trade fair for transport technology finally took place live again in Berlin.



IVU: New member of the Deutsches Verkehrsforum

The German Transport Forum (DVF) promotes an efficient, user-friendly and sustainable integrated transport system and is the only multi-modal industry association for passenger and cargo transport in Europe. As the newest member of the Deutsches Verkehrsforum IVU is bringing its IT and transport expertise on board to work with its partners towards the shared aim of a sustainable mobility transition. The DVF and IVU are convinced that strong public transport is synonymous not just with a better quality of life in cities and communities, but also with protecting the environment.

IVU Foundation for People, Nature, and Climate Protection

IVU shares for a good cause – two of IVU Traffic Technologies AG's founders, along with their families, have set up the non-profit IVU Foundation for People, Nature, and Climate Protection. The foundation is intended to help safeguard the natural foundations of life for future generations and promote social inclusion projects. To this end, the two families use the assets acquired through the IVU shares. Both the origin of the capital for the foundation and the foundation's goals are closely linked to IVU's business activities and sustainability goals.

Innovations



Complete integration of rail operations:

A digital workflow from the control centre to the passenger.

New Generation of the IVU.ticket.box

For more than 12 years transport operators have been successfully using the IVU.ticket.box as a digital dashboard in buses – to sell and inspect tickets, to communicate with the control centre, and to control the on-board electronics. Now Germany's best-selling on-board computer is entering the next generation with significantly more power and a modular structure.

The fifth generation of IVU.ticket.box offers even better performance, high-value components, and optimal usability – with minimal conversion effort. The all-in-one device is not sensitive to water or dirt, and is modularly structured. It is equipped for at least ten years of demanding usage in regular service.



Integrated rail control centre for Rail Operations

From timetable planning and dispatching to disruption management and realtime information, IVU's rail control centre is a fully integrated standard solution with a continuous digital workflow that provides passengers with consistent information at all times and on all channels.

IVU.rail's rail control centre ensures standardised data flows that harmonise different sources of information. The integration includes applications from planning to personnel and vehicle dispatch to the on-board software in the trains. Simultaneously, the system transmits all realtime information directly from the dispatch to the passengers. This ensures confidence, reliable planning, and shorter wait times – which means satisfied passengers.

Employees

Complex systems require brilliant minds. IVU provides meaningful work in the exciting area of public transport – the key factor for sustainable mobility. To this end, IVU's employees develop solutions, write software, implement products at our customers' premises, advise transport companies and provide round the clock worldwide support where necessary. Their expertise is a key factor in ensuring that IVU is successful. The company fosters a positive and respectful working environment so our employees feel at home at IVU.

IVU's growth prospects are still good. We continued our intensive recruitment programme in the 2022 fiscal year and recruited suitable software and project engineers for IVU. Despite the circumstances surrounding the shortage of skilled workers becoming more difficult, we succeeded in attracting more than 150 new colleagues last year. IVU now has 888 employees across the Group (corresponding to an average personnel capacity of 697 FTE).

As well as recruitment, internal professional development is also hugely important to IVU. In special management trainee programmes, we prepare promising candidates to take on management and specialist responsibility.

In recent years, IVU has 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 talented specialist staff programme boosts careers as subject specialists, retaining key knowledge in the company.

IVU share, key figures

IVU SHARE IN COMPARISON

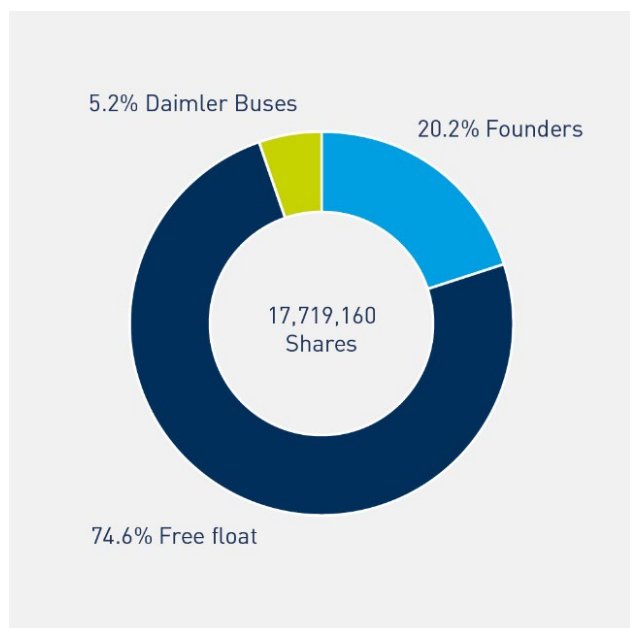
JAN 2008 – MAR 2023



MAR 2021 – MAR 2023



SHAREHOLDER STRUCTURE AS AT 31 DECEMBER 2022

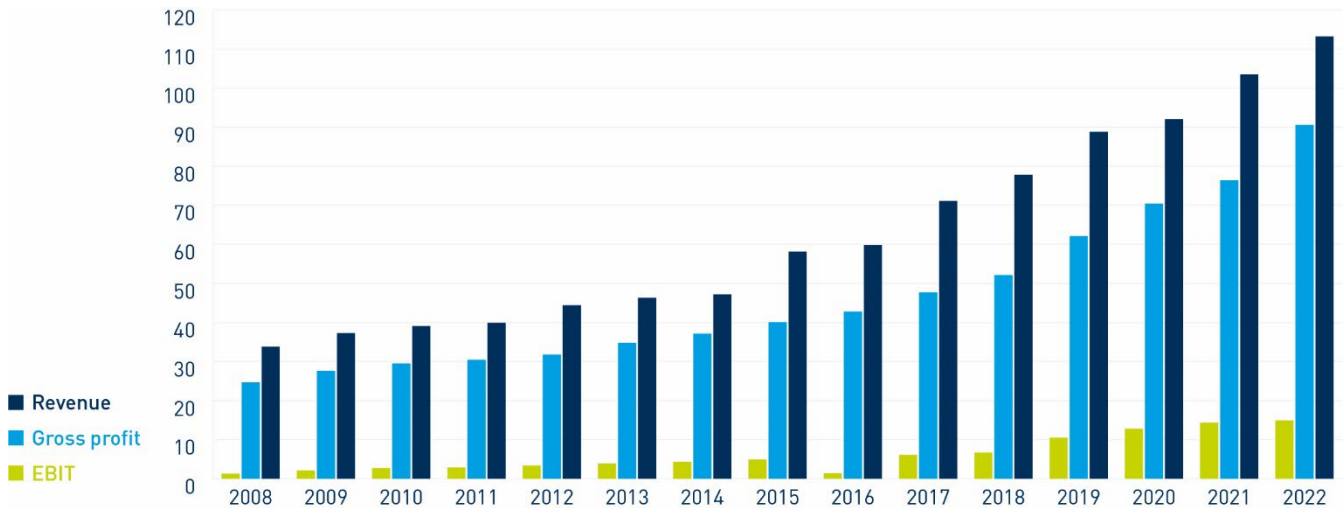


SHARES HELD BY BOARD MEMBERS AS AT 31 DECEMBER 2022

Executive Board	Shares
Martin Müller-Elschner	245,967
Matthias Rust	26,290
Leon Struijk	30,000
Executive Board Total	302,257
Supervisory Board	Shares
Prof. Herbert Sonntag	856,000
Prof. Barbara Lenz	1,500
Benedikt Woelki	331
Axel Zimmermann	1,082
Supervisory Board Total	858,913
BOARD MEMBERS TOTAL	1,161,170

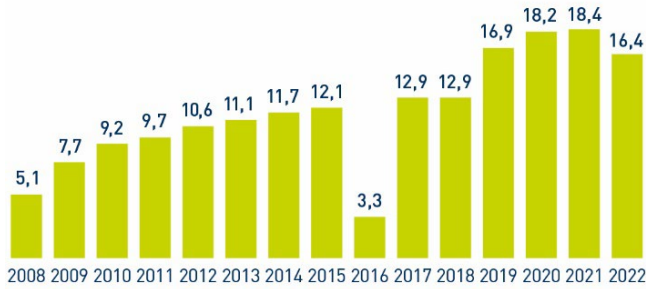
KEY FIGURES 2008-2022

IN € MILLION



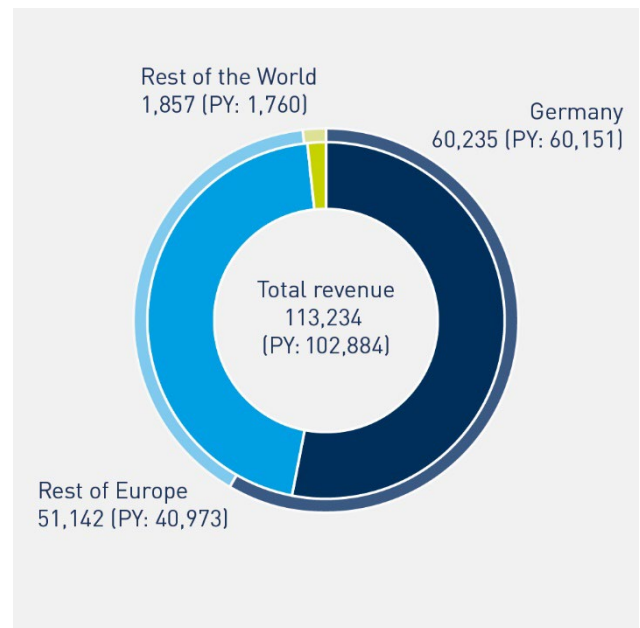
EFFICIENCY 2008-2022

EBIT/GROSS PROFIT IN %



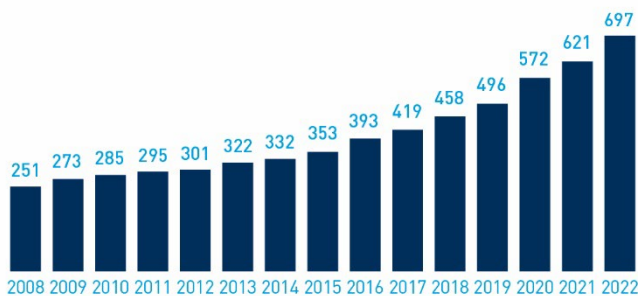
REVENUE 2022

IN € THOUSAND



FULL TIME EQUIVALENTS 2008-2022

AS ANNUAL AVERAGE



GROUP MANAGEMENT REPORT





Group Management Report for the 2022 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, Leipzig, Hannover (Germany), Rome (Italy), Olten (Switzerland), Vienna (Austria), Utrecht (Netherlands), Paris (France), Birmingham (Great Britain), Stockholm (Sweden), Budapest (Hungary), Poznan (Poland), 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.

IVU benefits from research projects in many ways. For example, research into new ideas and technologies may lead to the development of innovative products and services that could provide a competitive advantage. Research into customer needs, market trends or consumer behaviour can also increase the quality of IVU products in a sustainable manner and promote growth-oriented business decisions.

In 2022, IVU participated in various research projects, some of which began before the beginning of the year or will be continued in 2023. For example, the research projects started in previous years with MaaS L.A.B.S., U-hoch-3, LOGIN, OPENER next and SAFIRA continued in the past financial year. These projects are funded by the German Federal Ministry of Education and Research and are being implemented with partners from transportation companies, industry and universities. The objectives of the individual projects range from inter-modal travel planning to the dynamic improvement of the switching logic for traffic lights to barrier-free travel chains throughout Germany.

In addition, the ÖV-Leitmotif-KI and DELTα projects were launched in the past financial year. ÖV-Leitmotif-KI aims to efficiently integrate autonomous vehicles into public transport. As part of this, researchers are developing a reference model that first defines the roles of the people involved and then describes the interfaces between them. The DELTα research project aims to further develop networked public transport information by incorporating regional and national fare information into country information systems.

In the past year, IVU invested €6.4 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 specialists. Their qualifications and motivation are a key factor of lasting success and further growth.

The labour market for IT specialists remained challenging last year. The fact that the required employees were again recruited in 2022 testifies to IVU's good reputation as an employer and the positive working environment at the company. As at 31 December 2022, IVU had a total workforce of 888 employees, including part-time employees and students (2021: 779). The average personnel capacity increased by 12% to 697 FTE (2021: 621) and personnel expenses climbed 21% to €60.3 million (2021: €49.8 million). In general, IVU operates in a high-salary environment.

	2022	2021	Change
Number of employees as at 31 December	888	779	+14%
Average full-time equivalents (FTE)	697	621	+12%

Recruitment measures

With the establishment of a development office in Leipzig, IVU gained access to a new regional market of employees and thus enabled faster growth in development capacity. As at 31 December 2022, 15 developers were working at the Leipzig site. At the same time, IVU advertised remote working models and was thus able to recruit employees from all over Germany.

To attract specialists and graduates, IVU regularly attends careers fairs. In 2022, in-person events were largely possible once again. IVU took this opportunity to meet suitable specialists at a total of eleven trade fairs in Berlin, Aachen, Potsdam and, for the first time, Leipzig.

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 in-sight 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.

In Aachen, IVU invested in strengthening its own employer brand. With various marketing measures including an eye-catching poster campaign in central Aachen, the company drew attention to the exciting prospects at IVU.

Induction

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 training courses, the new employees at the German and international branches acquire the basic knowledge they need 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 induction programmes took place in 2022.

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. Examples include the in-house Developer Conference and the Project Conference. They offer all employees the opportunity to exchange information on new techniques and further developments of their programming

environments as well as on specialist topics from the project area.

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. Furthermore, training programmes for talented specialist staff were offered with the aim of bolstering careers as subject specialists at IVU and establishing an attractive alternative to the management track. Such trainings are designed to retain valuable knowledge in the company and specifically support particularly talented staff.

B. SUMMARISED NON-FINANCIAL STATEMENT¹

Basis of sustainability reporting

As a provider of integrated IT systems for efficient and environmentally friendly public transport, sustainability is central to IVU's activities. With its solutions, the company optimises public transport and thus contributes to a sustainable change in transport. At the same time, responsible action is also a basic prerequisite for economic success in the market. IVU therefore implements its short- and long-term growth targets in a manner in line with the needs of its employees, customers and partners as well as in harmony with society and the environment. More about IVU's business model can be found in the IVU Group Management Report under "Group structure and products".

The non-financial statement describes IVU's non-financial concepts and processes and has been prepared in accordance with Sections 315c in conjunction with 289c to 289e of the German Commercial Code (HGB) and Article 8 of Regulation (EU) 2020/852 of the European Parliament and of the Council of 18 June 2020 on the establishment of a framework to facilitate sustainable investment and amending Regulation (EU) 2019/2088 (hereinafter "EU taxonomy"). This statement covers the financial year from 1 January to 31 December 2022.

In preparing the non-financial statement, IVU has made use of the option provided by Section 289d of the German Commercial Code (HGB) and has followed the international framework of the Global Reporting Initiative

¹ The summarised non-financial statement was not audited by the auditor, but in accordance with IDW PS 350 (new version) / PS 202, was read critically by the auditor.

(GRI) and the current drafts of the European Sustainability Reporting Standards (ESRS), particularly with regard to the materiality analysis, the management approach and the presentation of individual key figures.

The content of the non-financial statement refers to the IVU AG Group. If there is a deviating inclusion, a corresponding explanation is provided.

Management of sustainability issues

The internal sustainability team manages, monitors and advises on the implementation of the sustainability strategy. It is headed by the commercial director, who reports these issues directly to the CEO.

The company receives important stimuli for shaping the social responsibility at IVU from its Supervisory Board and from its Advisory Board, which is made up of respected experts from the sector. Close contacts in the transport industry as well as the participation in associations and commissions also provides impetus. Moreover, the open corporate culture allows important issues raised by employees to reach the managers and the Executive Board of the company quickly.

Material stakeholders

In accordance with the ESR standards, the stakeholder groups are divided into those on whom the company's activities have an impact and the addressees of sustainability reports.

The first group includes IVU employees and the Supervisory Board as well as customers, project partners, suppliers and (future) investors. There are also authorities, associations and the general public.

The addressees of sustainability reports may include (future) investors, applicants, (potential) customers, authorities, the general public and important multipliers such as analysts or various media. IVU attaches great importance to ongoing conversations with all groups.

Determination of material non-financial topics

In the financial year 2022, IVU carried out a comprehensive update of the previous materiality analysis. In doing so, the company took into account the reporting obligation at European level with regard to double materiality.

The result is a more intense focus on the topics with the strongest impact on the economy, environment and society and with the highest business relevance for IVU.

To identify the material non-financial topics, a multi-stage process was followed. In the first step, the topics of the materiality analysis already addressed in 2018 were reviewed and potentially material sustainability aspects were identified. In a joint workshop, relevant internal stakeholders of IVU validated the facts in a second step and checked whether the company's activities have any impact on the environment and whether any effects of sustainability issues on the business activities of IVU are to be expected. Relevant aspects were added. The classification of the topics is line with the ESRS. The Executive Board has validated this classification.

Field of action	Material topic	Classification in accordance with Section 289c(2) HGB
Environment	Climate change Use of resources and circular economy	Environmental issues
Social	Own employees Consumers and end users	Employee issues, social issues, respect for human rights
Governance	Governance Business conduct	Combating corruption and bribery, respect for human rights

Sustainability strategy

The following sustainability strategy for IVU is derived from the materiality analysis:

Environment

Active climate protection: For IVU, active climate protection means making a relevant contribution to the climate neutrality of our society. To this end, the company relies in particular on the integrated IT systems of IVU.suite, which enable customers to achieve sustainable CO₂ reductions. At the same time, IVU internally aims to achieve a neutral carbon balance by 2025.

Optimised use of resources: IVU handles its resources carefully and strives for a circular economy. In particular, the company focuses on the best possible recycling of internal operating materials and on cooperation with sustainable suppliers.

Social

Respectful corporate culture: The most important prerequisite for IVU's economic success is its smart minds – the company searches for and finds “the really good ones”. IVU attaches great importance to

cooperation among colleagues and gives all employees the opportunity to pursue a meaningful career in an appreciative working environment and to fully unleash their individual talents. The company shares its successes with all employees.

Sustainable customer relationships: IVU strengthens its partnerships through active and trusting collaboration, thus allowing the company to be aware of the needs of its customers. To find solutions for complex and dynamic requirements, IVU relies on communication with all stakeholders. The focus is always on the customer's perspective.

Governance

Reliable business conduct: IVU cultivates equal, cooperative and long-term partnerships with its customers, partners and employees. We are open and conscientious in our interactions and always treat our customers and partners as equals.

Responsible corporate governance: IVU's corporate governance involves acting responsibly and within the framework of the applicable regulations of a listed company. IVU is committed to the Corporate Governance Code and its internal Code of Conduct. Avoiding critical compliance incidents is of utmost importance.

Environment

Active climate protection

Climate protection is more important than ever requires enormous commitment from companies in particular. The national climate protection targets have been clearly defined and Germany is to be climate-neutral by 2045. IVU would like to achieve this for its business operations as early as 2025.

With this in mind, it has set itself the following objectives:

1. Promoting efficient public transport
2. Reducing energy consumption and increase energy efficiency
3. Increasing the low-emission mobility of our employees

However, not only IVU as a company, but also the founders of IVU want to contribute very actively to this objective. In 2022, Professor Herbert Sonntag and Dr. Manfred Garben, together with their families, established the non-profit IVU Foundation for People, Nature and Climate Protection and intend to use the assets

acquired by the two families through IVU shares for a good cause. Both the origin of the foundation's capital and its objectives are thus closely linked to IVU's business activities and sustainability objectives. The foundation is intended to help safeguard the natural foundations of life for future generations and to promote social inclusion projects.

Promoting efficient 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.

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

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 ensures that electric buses are used efficiently and personnel are deployed 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.

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

Reducing energy consumption and increase energy efficiency

It is not only IVU products that are intended to help protect the climate, as a company, IVU has also set itself the ambitious objective of being carbon neutral by 2025.

Reducing energy consumption and increasing energy efficiency play a major role in this.

In the reporting year, IVU calculated its carbon footprint for the first time. Since essential data for determining the key figure is only available after publication of the annual report, all key figures in this chapter refer to the year of the previous reporting period.

Overall, the carbon footprint for 2021 was 1,996 metric tons of CO₂-equivalent (CO₂e). Of this, 42 metric tons from air travel have already been offset. In relative terms, IVU emitted about 3.2 tons of CO₂e per employee. Most of the emissions are attributable to commuting and energy consumption (especially site heating and electricity consumption).

Energy consumption across the Group in 2021 was 2,044 Mwh. For better management, energy audits are regularly carried out in accordance with DIN EN 16247-1 with the aim of identifying its main energy drivers. The last audit took place in December 2019 for the Berlin and Aachen sites.

Heat consumption has not yet been analysed. This will be looked at in more detail in 2023 and suitable measures for reduction identified.

Special attention was paid to electricity consumption. In total, IVU consumed 420.1 MWh of electricity in 2021. Lighting was identified as one of the main consumers in the energy audit. IVU is therefore switching to energy-saving light sources fitted with LEDs. Thanks to their 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.

Furthermore, the current focus is on the choice of energy supplier. In 2021, the share of green electricity was around 35%. This is largely due to the fact that IVU cannot choose its own electricity provider at all locations. Nevertheless, the objective here is to successively further increase the share of green electricity.

In an IT company, a large proportion of the energy consumed is accounted for by data centres and servers. Accordingly, this is where the greatest potential for energy savings lies. IVU's data and the data of its customers are hosted exclusively by external specialised providers. This is to ensure that the facilities are best suited to the operation of servers and are optimised in terms of energy. One of the three external service providers has already switched to green power. The other two providers plan to follow suit by 2025.

Increasing the low-emission mobility of employees

Around 40% of our carbon footprint is caused by business trips and commuting. IVU therefore sees this as a major lever for savings.

To limit the need for business trips and commuting, all employees have access to mobile devices and all locations are equipped with modern video conference systems. Mobile working is part of everyday professional life at IVU. Employees are free to choose their place of work. This saves commuting and makes more efficient and sustainable use of existing spatial resources.

However, some business trips are indispensable as part of the project business in order to implement projects on site, conduct training courses and support customers. In these cases, employees are encouraged to use public transport instead of flights and taxis wherever possible. Since the beginning of the 2018 financial year, IVU AG has been compensating for 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.

In 2021, IVU AG employees travelled a total of 235,000 air kilometres. 12% of these were short-haul², 77% were medium-haul³ and 11% were long-haul⁴ flights. According to the VDR standard⁵ for calculating CO₂, these trips resulted in a carbon footprint of 38.37 metric tons of CO₂. The objective is to further reduce flights and replace them with rail travel as often as possible.

As part of the reduction of emissions due to commuting, IVU subsidises the use of public transport for each employee at the German sites with €50 net per month.

² Under 500 km

³ 500 km to 1,600 km

⁴ Over 1,600 km

⁵ VDR Standard from the Association of German Travel Management e. V.

There are comparable regulations in Switzerland, Austria and the Netherlands.

As a bicycle-friendly employer, the company also offers bicycle garages, showers and regular bicycle repairs in Berlin and Aachen.

Company cars are offered only to the first two levels of management. This was significantly reduced by offering attractive financial compensation. A further reduction is planned.

Efficient use of resources

The resources used by the company include hardware for employees (laptops, smartphones, headsets, etc.), office equipment and catering. Since IVU itself does not manufacture any equipment in its own production plants, there is no resource consumption for the production of hardware.

Accordingly, commercial waste in particular is generated as waste products by office activities and the hardware used by employees.

Based on this, IVU has identified the following objectives:

1. Avoiding waste and increasing the recycling rate.
2. Working with sustainable suppliers.

Avoiding waste and increasing the recycling rate.

IVU always makes sure that all materials are recycled.

Consumables such as plastic and cardboard packaging waste are separated on-site and recycled. For electronic waste such as monitors, lamps, headphones and other small electrical and electronic devices, IVU works with specialised service providers who professionally dispose of the devices in accordance with Annex VII of Directive (EU) 2012/19/EU or recover used PC hardware and pass it on to the second-hand market.

No key figures are currently collected in relation to this. The aim for 2023 is to define and monitor key figures.

Cooperating with sustainable suppliers

When selecting suppliers, IVU takes care to always ensure that they comply with the fundamental standards of resource-conserving production.

IVU's main suppliers are companies that manufacture the IVU.Ticket.Box and IVU.Box.Gateway products. These partner companies are based in Germany. Like IVU itself, the partner companies are subject to Directive (EU) 2011/65/EU on the Restriction of Hazardous

Substances in Electrical and Electronic Equipment (RoHS) and are classed as a "downstream user" within the meaning of Regulation (EC) No. 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH). The products do not release any chemicals under normal and reasonably foreseeable conditions.

For the hardware part of its system solutions, it is important to IVU that they can be used for as long as possible. Together with its upstream suppliers, IVU therefore generally ensures spare parts availability of up to ten years and even longer in individual cases. It also offers repair services for defective hardware.

EU taxonomy

Basic information

The European Parliament and European Council created the so called EU Taxonomy, a Europe-wide classification system for environmentally sustainable business practices. The aim of this is to 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.

According to the EU taxonomy, an economic activity is considered taxonomy-eligible if it can potentially contribute to one of the following six environmental objectives:

- 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

It is also taxonomy-aligned if it meets all of the following three conditions:

- It makes a substantial contribution to one of the six environmental objectives while meeting the evaluation criteria defined for the economic activity in question.
- It complies with the "do no significant harm" (DNSH) criteria defined for the economic activity in question. This means that it may not significantly harm any of the other environmental objectives.

- It ensures the minimum safeguards with regard to human rights, social and labour standards.

IVU must report on 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, capital expenditure (CapEx) and operating expenses (OpEx). For this report, IVU has applied the Taxonomy in the version at the end of 2022 to its business activities.

It should be noted here that due to undefined legal terms in the EU taxonomy, there are currently still ambiguities in the interpretation of the regulation. In addition, further legal acts and explanations for the use of the published requirements have already been announced and may therefore have an impact on disclosures to be reported in the future.

This also meant that IVU was not yet able to assign itself to any economic activity within the meaning of the EU taxonomy in the 2021 Annual Report due to a lack of "100 % fit". IVU has therefore made various efforts in 2022 to be explicitly included in the taxonomy system. Among other things, it has addressed the responsible expert panel with a specific proposal for a solution. Companies whose sustainable activities are not yet included in the classification system are expressly requested to make these statements. This has not yet been implemented. However, based on indications from the expert panel, after careful consideration IVU has decided this year to apply an economic activity that is suitable under a broader interpretation.

Taxonomy eligibility

Integrated IT systems for efficient and environmentally friendly public transport are part of IVU's business model. Strengthening and expanding public transport is central to national and international climate change mitigation efforts. Therefore, in the sense of the EU taxonomy, activities in these areas are suitable for making a significant contribution to the environmental objective of "Climate protection" through the expansion of clean or climate-neutral mobility.

Within the environmental objective of "Climate protection", IVU assigns all the activities mentioned to the economic activity "Data-based solutions to reduce greenhouse gas emissions".

Taxonomy alignment

Substantial contributions

In accordance with the selected standard, IT solutions must be used primarily to provide data and analyses that enable greenhouse gas emissions to be reduced. Sustainability is a central element of IVU's activities. For the company, this particularly includes climate protection. In this area, IVU's products make a significant contribution to reducing greenhouse gas emissions by increasing efficiency (see also the table in the section "Active climate protection" for the selected IVU products).

A substantial improvement compared to alternatives cannot be assessed because no comparable alternatives to IVU's IT solutions can be identified. Therefore, a measurement of emissions over the life cycle was not carried out. However, after systematic investigation, IVU is convinced that the use of its IT solutions results in a substantial reduction of harmful emissions compared to the use of no alternative. This approach is in line with the recommendation of the EU Commission.

Compatibility with other environmental objectives ("do no significant harm – DNSH")

To comply with the DNSH criteria, potential negative impacts must be taken into account for the environmental objectives "Climate change adaptation" and "Transition to a circular economy".

To this end, IVU conducted a climate risk analysis as recommended by the German Federal Environmental Agency to identify and address risks to economic activity caused by climate change. Heat waves, a widening range of temperatures and increasingly severe storms in Central Europe were identified as potential sources of risk. In particular, these pose a health risk to employees and a risk to buildings and infrastructure. Measures for adaptation will therefore be determined in 2023, but the overall risk is assessed as rather low.

Further requirements will be implemented by IVU as follows:

- The working materials used by IVU meet the requirements of Directive (EU) 2009/125/EC and do not contain any prohibited substances in accordance with Directive (EU) 2011/65/EU.
- A waste management plan to ensure that used products are recycled in the best possible way at the end of their life cycles was introduced in 2022 based on paragraph VII of Directive 2012/19/EU. The Electrical

and Electronics Equipment Law transposes the European directive into national law. Waste disposal service providers are involved with this through appropriate contracts and guarantee the lawful disposal of waste electrical and electronic equipment.

Minimum safeguards

The criteria for minimum safeguards were reviewed for IVU based on the recommendations from the “Final Report on Minimum Safeguards”:

Tax issues are managed across the Group by the parent company. These are supported by local tax consulting companies and local management.

The topics of **corruption and bribery as well as fair competition** are covered by the compliance management system, which is described in more detail in the Governance section of the non-financial report.

Human rights frameworks include the OECD Guidelines for Multinational Enterprises, the United Nations Guiding Principles on Business and Human Rights, the core labour standards of the International Labour Organisation (ILO), and the International Bill of Human Rights, which IVU adheres to.

Performance indicators

The three performance indicators – revenue, CapEx and OpEx – are issued below on a Group-wide basis, as the companies essentially operate their businesses under the same conditions.

All revenue, capital expenditure and operating expenses are classified as fully taxonomy-eligible. The background to this is that:

IVU develops, installs, maintains and operates integrated IT solutions for buses and trains. Thus, as listed above, it is classified under the economic activity “Data-based solutions to reduce greenhouse gas emissions”. All supplementary services incurred in the IPPC serve the sole purpose of enabling this economic activity.

Taxonomy-eligible and taxonomy-aligned revenue

Revenue to be measured in accordance with EU taxonomy correspond to those reported in the IFRS consolidated financial statements. This amounted to €113.2 million in 2022 and comprises license sales (31%), supplementary service and hardware sales (31%), and recurring revenue from the maintenance and hosting business (38%).

Taxonomy-eligible and taxonomy-aligned capital expenditure

IVU’s capital expenditure totalled €21.2 million in the 2022 financial year. It comprises property, plant and equipment (6.4%), intangible assets (80.8%) and leases (12.8%). A total of €16.7 million relates to the acquisition of LBW Optimization GmbH.

Taxonomy-eligible and taxonomy-aligned operating expenses

IVU’s operating expenses as defined by the EU taxonomy totalled approximately €9.4 million in the 2022 financial year. They comprise personnel costs and material costs for research and development (68.0%) as well as current costs for operating and office equipment (31.4%) and short-term leasing (0.7%).

REVENUE				SUBSTANTIAL CONTRIBUTION		DNSH CRITERIA ("do no significant harm")									
	Code	Absolute revenue in € million	Share of revenue in %	Climate change mitigation in %	Climate change adaptation in %	Climate change mitigation	Climate change adaptation	Water and marine resources	Circular economy	Environmental pollution	Biodiversity and ecosystems	Minimum safeguards	Taxonomy-aligned revenue, 2022 in %	Taxonomy-aligned revenue, 2021 in %	Enabling/transition activity
A. TAXONOMY-ELIGIBLE ACTIVITIES															
A.1. Taxonomy-aligned revenue	8.2	113.2	100	100	-	N/A	YES	N/A	YES	N/A	N/A	YES	100	-	E
A.2. Taxonomy-eligible but not taxonomy-aligned revenue	8.2	0	0	-	-	-	-	-	-	-	-	-	-	-	-
Total (A.1 + A.2)		113.2	100	-	-	-	-	-	-	-	-	-	-	-	-
B. NON-TAXONOMY-ELIGIBLE ACTIVITIES															
Revenue from non-taxonomy-eligible activities		0	0	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL (A+B)		113.2	100	-	-	-	-	-	-	-	-	-	-	-	-

OPEX				SUBSTANTIAL CONTRIBUTION		DNSH CRITERIA ("do no significant harm")									
	Code	Absolute OpEx in € million	OpEx share in %	Climate change mitigation in %	Climate change adaptation in %	Climate change mitigation	Climate change adaptation	Water and marine resources	Circular economy	Environmental pollution	Biodiversity and ecosystems	Minimum safeguards	Taxonomy-aligned OpEx, 2022 in %	Taxonomy-aligned OpEx, 2021 in %	Enabling/transition activity
A. TAXONOMY-ELIGIBLE ACTIVITIES															
A.1. Taxonomy-aligned OpEx	8.2	9.4	100	100	-	N/A	YES	N/A	YES	N/A	N/A	YES	100	-	E
A.2. Taxonomy-eligible but not taxonomy-aligned OpEx	8.2	0	0	-	-	-	-	-	-	-	-	-	-	-	-
Total (A.1 + A.2)		9.4	100	-	-	-	-	-	-	-	-	-	-	-	-
B. NON-TAXONOMY-ELIGIBLE ACTIVITIES															
OpEx from non-taxonomy-eligible activities		0	0	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL (A+B)		9.4	100	-	-	-	-	-	-	-	-	-	-	-	-

CAPEX				SUBSTANTIAL CONTRIBUTION		DNSH CRITERIA ("do no significant harm")									
	Code	Absolute CapEx in € million	CapEx share in %	Climate change mitigation in %	Climate change adaptation in %	Climate change mitigation	Climate change adaptation	Water and marine resources	Circular economy	Environmental pollution	Biodiversity and ecosystems	Minimum safeguards	Taxonomy-aligned CapEx, 2022 in %	Taxonomy-aligned CapEx, 2021 in %	Enabling/transition activity
A. TAXONOMY-ELIGIBLE ACTIVITIES															
A.1. Taxonomy-aligned CapEx	8.2	21.2	100	100	-	N/A	YES	N/A	YES	N/A	N/A	YES	100	-	E
A.2. Taxonomy-eligible but not taxonomy-aligned CapEx	8.2	0	0	-	-	-	-	-	-	-	-	-	-	-	-
Total (A.1 + A.2)		21.2	100	-	-	-	-	-	-	-	-	-	-	-	-
B. NON-TAXONOMY-ELIGIBLE ACTIVITIES															
CapEx from non-taxonomy-eligible activities		0	0	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL (A+B)		21.2	100	-	-	-	-	-	-	-	-	-	-	-	-

Social

Respectful corporate culture

Complex systems require brilliant minds. IVU employees develop ideas, write software, implement projects, advise customers and provide support. Their expertise makes a significant contribution to the company's success. Despite the tight situation on the labour market for IT specialists, IVU was again able to recruit over 100 new employees in 2022.

	2022	2021	Change
Number of employees as at 31 December	888	779	+14%
Average full-time equivalents (FTE)	697	621	+12%

To continue retaining and recruiting employees in the tight labour market situation, IVU has set itself the following objectives:

1. Transparent and trusting corporate culture
2. Offering employees opportunities for continued development
3. To create safe working conditions
4. To pay fair remuneration and allow employees to share in the company's success
5. To promote work-life balance
6. To maintain equal opportunities and increase the proportion of women in particular.

Ensuring transparent and trusting corporate culture

IVU views a transparent, appreciative and trusting corporate culture as highly important.

To promote sustainable developments in the Group, the Executive Board adopted the Code of Conduct for IVU in 2021. These principles of conduct support responsible behaviour on the part of every employee and serve as a binding guideline in everyday professional life throughout the Group. They are supplemented by internal guidelines as well as employment contractual agreements.

Cooperation with the IVU works councils in Germany has been close and trusting. Regular coordination meetings are held between the Human Resources department, the management and the works councils. For 2022, consultations focused in particular on the topics of working models, working hours, salary determination, health management and personnel development.

Regular participation in the "Great Place to Work" employee survey gives IVU the opportunity to systematically measure employee satisfaction in the company and identify potentials for action. A survey was performed in 2020 as well. In the "Great Place to Work" survey, IVU scored way above average across all the relevant assessment criteria – credibility, respect, fairness, pride and team spirit. 95% of employees praised the friendly working environment and, over 90% said they enjoyed coming to work.

New employees are also specifically asked by HR during their induction how satisfied they are at the company.

Another key figure for measuring target achievement is staff turnover. This amounted to 8.2% for the 2022 financial year and is thus at a similar level to 2021.

Offering employees opportunities for continued development

An innovation-centric technology company like IVU thrives on the professional expertise of its employees. It is thus 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, all employees are invited to annual development meetings in which training requirements are defined. IVU's training catalogue includes numerous internal and external training courses, such as developer training and language courses. Training also covered soft skills, negotiations, modern and agile project management, new technologies and modern ways of working. In addition, the company organises various programmes that meet the diverse training requirements of its employees, including:

- Structured and standardised induction programs for all new employees.
- Annual project and developer conferences
- Management trainee programmes for managers and talented specialist staff

- Weekly short training sessions on IVU-specific topics.

In the 2022 financial year, each IVU AG employee spent an average of 34.4 hours in training courses. IVU AG invested an average of €787 per employee in further training.

To create safe working conditions

Measures to promote health in the company not only help individual employees and ensure the long-term success of the business, but they also have a positive impact on society beyond the boundaries of the company.

An occupational safety committee meets four times a year for IVU AG to deal with current developments in occupational safety. In addition, a risk assessment of mental stress is regularly carried out, which aims to raise awareness of mental stress factors, identify areas for action and derive appropriate measures. At an annual safety training course, employees receive important advice and tips about everyday work routines that promote a healthy lifestyle. To promote the general health of its employees, IVU provides the following health and fitness activities:

- Weekly active and relaxing breaks (via video broadcast): a health instructor takes employees through a series of movement, stretching and relaxation exercises and gives them tips on personal fitness in everyday office life.
- Annual health day: lectures and workshops on nutrition, resilience, etc.
- Participation in company runs in Berlin and Aachen
- (Financial) support for in-house company sports groups: e.g. beach volleyball, table tennis, yoga
- Support for using bicycles for commuting to work: e.g. bicycle garage, showers, regular bicycle inspections
- Provision of fruit and vegetable baskets

As part of the company reintegration management, IVU AG 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.

Due to the predominance of office work, occupational accidents are rather rare. There was only one case in the reporting year 2022.

With an average sick leave of nine working days per employee, IVU is below the German average of 11.2

working days (according to the German Federal Statistical Office), but saw an increase in 2022.

To pay fair remuneration and allow employees to share in the company's success

IVU also expresses its appreciation for its employees in performance-related pay.

To ensure a fair and transparent salary adjustment process, the IVU works council and management have agreed on a standardised annual system for salary adjustments. The focus is on the objective performance of the individual employee, but social criteria are also taken into account. To ensure that salaries are in line with the market in comparison with competitors, IVU AG carries out regular benchmarks. Employees can also participate in the company's success through IVU shares. In addition, IVU AG provides social benefits such as daycare subsidies, public transport subsidies and capital-forming benefits for employees (with the exception of students).

There is regular monitoring of salary differences between women and men at IVU AG. In the reporting year, no significant salary differences were identified at IVU AG at the various career levels.

Promoting work-life balance

Different situations in life cannot be forced into a standardised framework. 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.

Working hours can be arranged very flexibly. This applies not only to the daily free choice of working hours, but also to the various options for employees to increase or reduce their working hours. This is clearly illustrated by the comparatively high part-time ratio of 21% for the reporting year 2022. Students were excluded for the calculation of this value.

Likewise, employees are free to work remotely in any location.

With regard to holidays, IVU significantly exceeds the minimum legal requirement and generally grants all employees working 5 days a week a total of 30 holiday days per year (or more if they have been with the company for a long time). Since even 30 days of holidays are sometimes not enough for certain plans, IVU AG has also established a timeout model that allows IVU AG employees to take up to three months off. Parents 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.

IVU AG actively complies with the legal regulations for family time.

As a rule, works agreements form the basis for all measures.

Maintaining equal opportunities and increasing the proportion of women in particular

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 receive the same opportunities to develop their career within the company. IVU is convinced that diversity fosters a productive and innovation-friendly working environment.

IVU is an international company with employees from 46 different countries and strives for a balanced gender distribution. 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.

Compared with the proportion of female graduates in the field of computer science relevant to IVU of 22.2% (in 2021), IVU nevertheless employs an above-average number of women throughout the company. In 2022, the proportion of women across all departments was 31% and 34% in new hires.

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 are now members of the Supervisory Board. This brings the proportion of women to 30%.

In terms of the proportion of female managers in the first two levels of management below the Executive Board, the target of at least 15% was exceeded at 21.2% (as at 31 December 2022).

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. IVU also enables girls who show an interest to complete prolonged pupil internships during which they can engage more intensively with individual tasks.

There were no reported cases of discrimination in 2022.

Sustainable customer relationships

IVU aims to be a reliable partner for its customers for high-quality software solutions. IVU's solutions optimise public transport and thus contribute to a sustainable change in transport. The following objectives have therefore been identified:

1. To focus on customer satisfaction
2. To provide innovative solutions
3. To ensure quality of products and processes
4. To secure information
5. To protect customer data

To focus on customer satisfaction

Customer satisfaction is at the heart of IVU's business activities. It is a self-professed objective of management to work closely with customers in the long term and to see projects reliably through to the end.

Regular exchange with customers takes place during cooperation in user groups and at the annual User Forum. At these events, IVU system users are given the chance to talk to each other and to IVU employees 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 systems for forthcoming challenges.

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

In the 2021 survey, 87% of customers said they would recommend IVU to others.

To provide innovative solutions

Environmentally friendly transport needs innovation and digitalisation.

IVU's steadily growing innovation team drives new ideas and innovations. The focus is on building prototypes, which then move into development as mature products. In addition to the specialist orientation, the focus is particularly on testing new technologies.

IVU also has good contacts with technical colleges and universities, with which it cooperates intensively and successfully in research and teaching. In 2022, IVU participated in various research projects. These are described in more detail in the management report under the section "Research and development".

In the past year, IVU invested €6.4 million in R&D.

Advancing the quality of products and processes

The IVU.suite products must ensure smooth operational processes and for this reason are classified as critical to the customer's operations. The quality of the solutions is of the utmost priority. Thus, IVU delivers its software and hardware products only if their function can be ensured and the products will remain stable and reliable even in demanding operational situations.

To ensure quality, IVU has defined the quality objectives of functionality, user-friendliness, performance, reliability and information security.

Since 2012, IVU has operated a quality management system in accordance with DIN EN ISO 9001:2015 and is monitored and certified annually by the independent certification body DeuZert® (Deutsche Zertifizierung in Bildung und Wirtschaft GmbH). Internal processes can thus follow clear guidelines and customers can rely on the quality of the processes and results in accordance with IVU standards.

The quality objectives are measured by key figures. IVU's management regularly evaluates the effectiveness of the quality management system based on the results and plans measures for improvement.

To secure information

According to the Federal Office for Information Security (BSI), the number of malware programs and the quality of hacker attacks on companies in Germany again reached an all-time high in 2022. In 2022, nine out of ten German companies fell victim to cyber attacks. IVU's information security therefore remains an important and critical issue that is being particularly strongly addressed.

A team led by the Chief Information Security Officer (CISO) acts as a coordination unit and central point of contact for all information security issues. The team reports directly to the Executive Board. The topic has also been comprehensively integrated into all areas of the company with internal contact persons who serve as multipliers in order to practise information security effectively and appropriately as a whole.

Thanks to the information security management system (ISMS), IVU ensures that its services, products and operations on the IVU.cloud comply with customers' current and future information security requirements, including all legal, regulatory and contractual requirements.

IVU employees receive regular training and are made aware of security risks through various exercises.

In 2022, the independent certification body DeuZert® (Deutsche Zertifizierung in Bildung und Wirtschaft GmbH) confirmed in its surveillance audit that IVU's information security management system meets all requirements from the internationally recognised DIN EN ISO/IEC 27001:2013.

A total of two cyber security breaches were recognised in the reporting year. These were handled without damage or consequential damage for IVU and for its customers.

There were no identified cases of data theft and data loss in connection with customer data.

To protect customer data

The protection of personal data is established as a fundamental right of all natural persons in accordance with Article 8 of the Charter of Fundamental Rights of the European Union. IVU respects the protection of personal data and implements appropriate measures to protect it.

In accordance with the European General Data Protection Regulation (GDPR), IVU takes all required technical and organisational measures to protect personal data for the entire company. A data protection officer and a deputy have been appointed who are available as contacts points for questions and suggestions regarding data protection. They regularly attend training sessions and pass on their knowledge to all IVU employees as part of a mandatory annual data protection training course.

In addition, IVU requires its data-processing service providers to adhere to the regulatory and company requirements for the protection of personal data.

There were no justified data protection complaints in 2022.

Governance

Responsible corporate governance

Responsible corporate governance and sustainable value creation are of great importance to IVU. Therefore, in 2022, 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). As a public limited company listed on the stock exchange, IVU is subject to the strictest legal regulations regarding the composition of the Executive Board and the Supervisory Board and their reporting on remuneration, which is why this is not discussed separately here.

The following objectives have been identified in detail:

1. To ensure conduct in line with regulations and standards.
2. To identify and counteract risks.

To ensure conduct in line with regulations and standards.

IVU is growing successfully and is increasingly active in international markets. Its customers are located in numerous countries around the world with different ways of working. This also has an impact on their cooperation with IVU. At the same time, the requirements of legislators in Germany as well as abroad continue to increase.

To make it easier for all IVU employees to act correctly at all times when working with customers while maintaining IVU's special culture, the company uses a compliance management system. This has two main objectives:

- to detect compliance violations that have already been committed and to sanction them accordingly, and in particular
- to prevent future compliance violations in order to avert imminent damage to IVU.

The compliance management system provides for various measures and processes with which compliance with national and international regulations and laws by all IVU employees can be ensured and tracked. These include a binding Code of Conduct and a publicly accessible whistleblowing system.

The IVU compliance officer monitors compliance with the relevant regulations.

In 2022, there were no reports via the whistleblowing system. Similarly, there have been no significant fines or non-monetary sanctions due to non-compliance with laws.

Identifying and counteracting risks

To secure the long-term success of the company, we must identify and manage all types of risks. IVU's risk management system is described in more detail in section D of the annual report.

Reliable business conduct

IVU is distinguished by its unique corporate culture. Humanity, collegiality, partnership, accountability, compliance – these are the values that are lived out in practice every day in dealings with colleagues, customers and suppliers. The way in which employees conduct themselves determines how IVU is perceived and has a large influence on the trust that customers place in IVU and its products.

The following objectives have been defined with regard to reliable business conduct:

1. To deal with partners, customers and suppliers in a reliable manner
2. Combating corruption and bribery
3. To shape fair competition
4. Protecting human rights

To deal with partners, customers and suppliers in a reliable manner

IVU conducts its business in a reliable manner. It works together with its suppliers in a spirit of trust and for mutual benefit.

With the Code of Conduct, IVU internally and externally underlines what the company stands for. The Code of Conduct is intended to provide IVU with a framework for its conduct in day-to-day business and to help it make ethical and legal decisions at all times. The Code of Conduct provides our customers, partners, shareholders and the public with a reliable and transparent foundation for cooperation with IVU.

Combating corruption and bribery

In accordance with the Code of Conduct, IVU does not accept any form of corruption or bribery – whether public, private, active or passive.

The company does not actively exert political influence. Members of the Executive Board occasionally take part in political delegations to represent the business loca-

tions Germany and the Land of Berlin overseas. They do not exert any influence in this capacity. The interests of the company are represented by the respective industry associations to which IVU belongs.

As a responsible, globally active company, IVU complies with the anti-corruption laws and regulations of all countries in which it operates. This particularly includes the UK Bribery Act and the US Foreign Corrupt Practices Act, both of which are broadly defined.

In 2021, IVU published a guideline on anti-corruption that applies to all employees. There were no incidents relating to corruption in the reporting year.

The current economic beneficiaries of IVU and its German subsidiaries are filed in the transparency register. For IVU AG, this is currently the Executive Board, as no shareholder owns more than 25% of the shares in the company, controls more than 25% of the voting rights, or exercises significant control over the company in a similar manner.

In the reporting period, Martin Müller-Elschner, CEO of IVU, took part in a delegation trip with the President of Germany Frank-Walter Steinmeier to Japan and South Korea, and with the Mayor of Berlin Franziska Giffey to Paris.

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.

No party donations were paid in the reporting year.

To shape fair competition

The principle of competition is an expression of the free economic constitution. IVU acts in accordance with the requirements and conforms to the applicable competition and antitrust law. IVU does not exploit its own market position and does not enter into any agreements with competitors that could result in harm to existing and potential customers.

In 2022, a guideline on competition and antitrust law was developed and will be rolled out to all IVU employees in 2023.

There have also been no legal proceedings or announced investigations due to anticompetitive behaviour and violations of antitrust and monopoly law in 2022.

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.

To ensure respect for and protection of human rights in the supply chain, IVU has implemented the Supply Chain Due Diligence Act and is currently working on the implementation of further measures. IVU does not see any significant risk that its activities have or may have a negative impact on observing human rights. Its suppliers and partners are almost exclusively based in Europe.

IVU also does not maintain any operations in countries with a significant risk of human rights violations and has no direct suppliers with a significant risk of human rights violations.

Furthermore, IVU is not aware of any case in which products or product components were associated with the violation of human rights.

C. ECONOMIC REPORT

Industry-related conditions

Public transport is a crucial factor in achieving climate goals. The expansion of transport services desired and promoted by society will contribute to the growth of the industry. This will increase both quantitative and qualitative offers. To move more people away from private transport, public transport must be available, efficient and attractive. Qualitative increases in areas such as passenger information, punctuality and reliability are only possible through the use of integrated software solutions. The demand for high-quality solutions such as the IVU.suite will therefore increase accordingly.

Railways are an important pillar of public transport. All likely stages of market liberalisation can be found in Europe. For example, the market is opening up for private companies to operate alongside and in competition with the existing state railways. Markets that IVU is currently in the early stages of exploring, such as France and Spain, offer the company a wealth of opportunities to gain new customers. Awarding transport services is usually accompanied by a rise in requirements for the necessary software solutions. Investments in the rail

sector thus can also be passed on to the suppliers of the rail transport companies – such as IVU. Countries where there has been little or no opening up of the market are also enormously increasing their demands for digital support. This usually involves replacing legacy systems that are no longer supported and replacing them with modern, more advanced solutions. In addition, the state railways are also under pressure to become more efficient in the future. To do this, they need integrated IT systems.

European long-distance transport occupies a special position. As part of the European Union's Green Deal, measures are being taken to double long-distance transport performance by 2030 compared with 2020⁶. In light of the successful commissioning of the production platform for DB Fernverkehr and the introduction of the IVU.suite, we expect positive effects for IVU from the growth in long-distance transport.

At national level, rail is also being promoted and expanded in many European countries. Even if the rail industry in Germany reports further demand beyond the current funding measures, funding is again at a new high and is showing a positive trend.⁷ In Germany in particular, where IVU's solutions support over 85% of the transport service of all rail transport companies in passenger transport, such subsidies will have a positive impact.⁸

To meet the demand for ever better integrated systems in the rail sector, IVU has steadily expanded its product range in recent years. An end-to-end system from the vehicle, vehicle and personnel dispatching to passenger information, including disruption and incident management, is a unique, fully integrated offering. This means that there is considerable growth potential for these new products, even in markets where many companies are already using IVU solutions. For example, the DB subsidiary Regionalverkehre Start Deutschland GmbH has been relying on the complete IVU.suite since 2022.

Electrification is currently a hot topic in public transport with buses and trams, especially in the bus sector. Against the backdrop of rising energy costs and the resulting fear of energy shortages, the efficient use of energy in bus fleets is more important than ever. The growing number of electric buses requires integrated solutions such as the IVU.suite to efficiently operate electric vehicles as well as mixed fleets.

⁶ European Union, The Transport and Mobility Sector, 2020.

⁷ Allianz pro Schiene, Upward Trend in Rail Investments, July 2022.

⁸ mofair e.V., Competitor Report: Railways 2021/2022, 25 October 2021.

The hot topic of converting to alternative drives is not slowing down in European countries. Many countries and cities have set targets to significantly or completely convert public transport to emission-free drive systems by 2035.⁹ Alongside buses, rail also has a great need for electrification. In 2022, IVU supplied the first rail transport companies with solutions for the operation of battery trains. IVU has deliberately developed all software modules for all types of operation and drives such as alternative drives.

The ambitious goals of the change in transport to promote climate protection are offset by urgent personnel requirements and a lack of skilled workers.¹⁰ The demands on IVU's customers are continuously increasing, with more and more service needing to be provided under economic pressure. To manage this, programmes are being launched to get specialists interested in the topic of transport. Digitalisation also helps to make complex systems controllable in an efficient manner. Transport companies can get by with fewer staff thanks to automation, integrated processes and optimised duty schedules. IVU supplies the right systems for this challenge facing the industry and supports transport companies in their task of dealing with the shortage of skilled workers in the best possible way.

Further challenges for transport companies in Germany will be the introduction and consequences of the "Deutschlandticket". IVU already has the appropriate solutions. Demand is expected to rise sharply as a result of the introduction of the €49 ticket.¹¹ Expanding the range of services to meet this demand will have a positive impact on IVU, as more vehicles will have to be equipped, planned, operated and provided with information. Even if the German transport companies and associations still see a need for improvement in terms of financing, a larger offering and digital sales channels are good signals for IVU.

The decline in passenger numbers during the coronavirus crisis and due to the war in Ukraine have had no impact on IVU to date and none are expected in the

future. Supply bottlenecks for on-board computer hardware were avoided. With the new generation of hardware of the IVU.ticket.box, the device concept has been made even more modular and flexible, so any future crises in electronics supply chains can be prevented in the best possible way. The software solutions of the IVU.cockpit and IVU.ticket on-board computers were ported to Linux and Android several years ago in order to be operable on the on-board computers of the IVU.ticket.box as well as on other available systems.

As a software producer, IVU depends on very good personnel who are in demand on the job market. In recent years, IVU has been able to attract new employees despite numerous competitors, without lowering the standards for the quality of applicants. Recruiting and good personnel support as well as fair pay have developed into relevant core competencies. IVU is constantly creating new incentives, with the result that the turnover rate of 8.2% remains below comparable values in the IT and software industry.¹²

Earnings, finances and assets

Record earnings in 2022

With EBIT of €14.9 million (2021: €13.9 million) IVU has again achieved record earnings and thus confirms the EBIT target for the financial year of over €14 million.

Revenue

In the 2022 financial year, IVU will continue the growth of recent years. Revenue has increased by 10.1% to €113.2 million (2021: €102.9 million), exceeding the target of over €105 million. In addition to proceeds from license sales, recurring revenue¹³ from the maintenance and hosting business contributed to growth, which increased by €6.8 million and thus accounted for 38.4% of total revenue (2021: 35.7%).

In 2022, 53.2% (2021: 58.5%) of revenue was generated on the German market and 46.8% (2021: 41.5%) from

⁹ The rapid deployment of zero-emission buses in Europe, INTERNATIONAL COUNCIL ON CLEAN TRANSPORTATION, September 2022.

¹⁰ VDV, Representative Survey "Personnel Requirements in the Transport Industry," 2021.

¹¹ PWC, 49-Euro-Ticket: Overall Large Demand Potential Leads Us to Expect a Noticeable Change in Mobility Behaviour in Germany: <https://www.pwc.de/de/pressemitteilungen/2022/49-euro-ticket-ingesamt-grosses-nachfragepotenzial-laesst-eine-spuerbare->

[veraenderung-des-mobilitaetsverhaltens-in-deutschland-erwarten.html](https://www.pwc.de/de/pressemitteilungen/2022/49-euro-ticket-ingesamt-grosses-nachfragepotenzial-laesst-eine-spuerbare-), 17 January 2023.

¹² Silicon, IT Service Providers: Staff Attrition at Record Level, <https://www.silicon.de/41692292/it-dienstleister-personalschwund-auf-rekordhoehe>, 17 January 2023; duerenhoff, Job Changes Are Just Common in the IT Industry, <https://www.duerenhoff.de/blog/in-der-it-branche-sind-gerade-jobwechsel-ublich>, 17 January 2023.

¹³ Revenue from long-term maintenance and hosting contracts with customers

export business. At €60.2 million (2021: €60.2 million) revenue on the German market are on par with the previous year, while international revenue rose to €53.0 million (2021: €42.7 million).

Gross profit

Gross profit increased by 19.5% to €90.6 million (2021: €75.8 million) in particular due to the increase in high-margin license and maintenance revenue. The target of €80 million was exceeded.

Personnel expenses, depreciation and other expenses

In 2022, personnel expenses rose by 21.0% to €60.3 million (2021: €49.8 million). In addition to the increase in full-time equivalents (FTE) of 12.2% the rise is due to the increase in the remuneration of IVU employees. 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 relationships, whose salaries are brought into line with normal market levels.

Depreciation on non-current assets grew by €1.3 million to €3.8 million (2021: €2.5 million) and included scheduled depreciation of €868 thousand on software licenses capitalised as part of the purchase of LBW Optimization GmbH for the first time..

Other operating expenses rose to €11.6 million in 2022 (2021: €9.5 million) in connection with growth and higher internal IT expenses.

Tax expense

The tax expense of €4.6 million million was the result of actual tax expense for the financial year of €2.5 million (2021: €1.6 million) and deferred tax expense of €2.1 million (2021: €2.6 million).

Finances and assets

Equity rose by €6.8 million to €74.7 million in the reporting year (2021: €67.9 million). At 53.4%, the equity ratio in 2022 was slightly up on the previous year (2021: 52.1%). The company's net assets are stable, and its financial strength remains very good thanks to its positive capital structure.

Intangible assets increased to €27.5 million (2021: €11.6 million) due to the goodwill and software licenses capitalised as part of the acquisition of LBW Optimization GmbH.

At €31.8 million, trade receivables are higher than the previous year's figure (2021: €20.4 million) due to invoicing at the end of the year. Other current assets included cash investments of €25 million (2021: €25 million) and were on par with the previous year's figure at €30.1 million (2021: €29.6 million).

Contract assets were reduced to €11.0 million (2021: €12.6 million) and thus remain at a satisfactorily low level.

Contractual liabilities from advance payments received reduce to €11.9 million (2021: €18.2 million) due to project process.

Provisions of €11.2 million are at the previous year's level and mainly relate to provisions for completed projects (2021: €10.7 million).

Liquidity

Operating cash flow of €4.5 million (2021: €19.1 million) was below the previous year's figure due to a higher level of receivables and a reduction in liabilities at the end of the year. Fluctuations in operating cash flow are common in the project business.

Cash flows from investing activities of €12.9 million include the cash portion of the purchase price payment of LBW Optimization GmbH in the amount of €10.8 million (€11,1 Mio. cash portion of the purchase price payment less €0,3 Mio. cash and cash equivalents acquired). Cash flow from financing activities includes the dividend payment for the acquisition of own shares of €4.4 million (2021: €2.5 million) and the dividend payment to shareholders of €3.9 million (2021: €3.5 million).

With €23.1 million in cash and cash equivalents as at 31 December 2022 (2021: €41.5 million) and time deposits of €25 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 €1.2 million were not utilised in 2022.

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 2022, characterised by pleasing growth in revenue, gross profit and operating profit (EBIT). For 2023, 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 about €90 million for the current financial year as at 28 February 2023.

Outlook

The quantitative and qualitative expansion of public transport services desired and promoted by society will contribute to the growth of the industry. Demand for high-quality solutions such as the IVU.suite remains high. The current sharp rise in costs, particularly for personnel, is also affecting IVU. In project contracts that have already been agreed, these cannot always be passed on to our customers.

Nevertheless, we expect IVU's business to continue to develop positively overall. For 2023, we expect consolidated revenue of over €120 million (actual for 2022: €113.2 million), a gross profit of over €95 million (actual for 2022: €90.6 million) and an operating result (EBIT) of over €15 million (actual for 2022: €14.9 million).

Risk management and internal control system¹⁴

As an internationally active company, IVU is exposed to a wide variety of risks. Preventing possible risks, identifying and assessing risks that have occurred at an early stage, and responding to them appropriately are central components of the risk management system that has been implemented. The ongoing identification, assessment and management of risks is based on a

broad range of information provided by the risk management system and the risk controlling system implemented. The early warning function required by law is fulfilled by the existing system and its ongoing further development. Compliance and sustainability aspects are covered by the internal risk management and control system.

The basis of the risk management system is formed by the operating units, which as "risk owners" are responsible for assessing, managing, monitoring and reducing risks. They are responsible for achieving a healthy balance between risks and opportunities and between risks and risk-bearing capacity.

The framework for this is set by requirements that apply throughout the company, for example by binding internal regulations. Compliance, quality, information security and risk management play a particular part in this. They help to form the specific governance for IVU and define corresponding minimum requirements for systems and processes to be applied by the operating units.

Internal controls for compliance with the relevant statutory regulations and the corporate principles, guidelines and measures specified by the Executive Board are particularly ensured by the following measures:

- The principle of dual control is firmly anchored in IVU and secured by the Executive Board's rules of procedure and internal signature guidelines.
- A separation of functions, which ensures that the employee carrying out the work is not the same person who reviews the work is carried out in all relevant processes. Appropriate review and approval procedures are defined.
- Employee access rights are controlled in a targeted manner. Authorisation control is implemented as part of our information security management.
- The internal control system is supported by the documentation of processes and procedures in the company.

Monitoring and control of existing and potential risks is ensured by internal and external quality audits as part of quality and information security management.

The IVU Executive Board makes an overall assessment once a year on the appropriateness and effectiveness of the risk management system and the internal control system.

¹⁴ This section was not reviewed by the auditor.

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. 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).

As at 31 December 2022, the Executive Board has no indication that the company-wide risk management system and the internal control system were either inadequate or ineffective. Its assessment found that there were no critical control weaknesses that could have a material impact on IVU. To the best of the Executive Board's knowledge, as at 31 December 2022 there was no material matter that jeopardised the achievement of the most important corporate objectives (strategic, operational, financial, compliance, sustainability) and that had not been adequately uncovered by IVU's risk management process and dealt with accordingly. However, it should be noted that even risk management systems and internal control systems that are judged to be appropriate and effective cannot fully guarantee at all times that all actual risks will be detected in advance and that all process violations will be excluded.

To carry out its control function, the Supervisory Board is regularly informed by the Executive Board – at least quarterly as part of its regular meetings – and is systematically involved in the risk management system and the internal control system. The regular reporting process is supplemented by ad hoc reporting as required. The Supervisory Board monitors the risk management system and the internal control system and ensures their appropriateness and effectiveness.

Risk management and internal control system regarding the accounting process (Section 315 (4) HGB)

The internal risk management system and the control systems are designed to ensure the correctness and effectiveness of the accounting process with regard to compliance with legal standards and accounting regulations. The Executive Board bears overall responsibility for this. 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.

IVU prepares its annual and consolidated financial statements based on the applicable accounting and valuation principles in accordance with the German Commercial Code (HGB) and International Financial Reporting Standards (IFRS). New accounting standards are regularly reviewed for their effects and, where necessary, internal accounting guidelines are adjusted.

A clear organisational, control and monitoring structure assigns responsibilities in the accounting process. The IT systems used in accounting are operated with standard software; they are protected against unauthorised access from inside and outside the company by extensive access regulations. All persons involved in the accounting process are qualified to meet the requirements and regularly take advantage of further education and training opportunities on the topics of taxes and accounting. There is enough staff to cope with the workload. External experts are consulted on selected accounting issues.

IVU regularly analyses key accounting-relevant processes with regard to the existence and functionality of the internal controls that have been set up. Any findings are implemented in a timely manner. The completeness and accuracy of the accounting data are checked manually on a regular basis using random samples and plausibility checks. The principle of dual control is applied throughout for processes of particular relevance to accounting.

Risk management is based on the monthly reporting system, which contains important key performance indicators and compares planned figures with the actual figures. 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.

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 is unchanged considered medium and possible amount of damage is estimated to be high (previous year: 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.

To reduce the increased risks, IVU has introduced an information security management system (ISMS) and has been externally certified in accordance with ISO/IEC 27001. It has itself regularly audited in accordance with this standard.

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 operating cash flow. 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 changed inflation environment may give rise to risks for the financial position and results of operation. IVU has agreed price adjustment clauses in most long-term contracts and is pricing inflation expectations into new contracts.

The probability of occurrence of financial risks continues to be assessed as high and the extend of damages remain unchanged at medium. Measures to counter these risks include delivery-oriented payment plans and efficient project management. In addition, the creditworthiness and 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.

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 2021 and 2022, 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 2022 financial year on 11 January, 8 April and 29 July. 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 250,000 shares were repurchased at a total price of €4,340 thousand. This corresponds to 1.41% 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 57,324 no-par value shares were issued (44 shares at an issue price of €20.00 each, 2,600 at an issue price of €19.18 each, 31,938 at an issue price of €18.39 each, 17,224 at an issue price of €16.26 each and 5,518 at an issue price

of €14.79 each) for all IVU employees in Germany in the 2022 financial year. The members of the Executive Board received 15,458 shares as part of their variable remuneration at an issue price of €19.18 each. Furthermore, 130,914 shares were transferred at an issue price of €18.10 as components of the purchase price for the acquisition of LBW Optimization GmbH. The number of shares issued corresponds to 1.15% 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

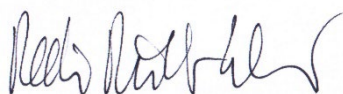
The company has published the corporate governance declaration, which is part of the Group management report, on its website, www.ivu.com/investors/corporate-governance-en. The corporate governance declaration comprises the declaration pursuant to Section 161 AktG regarding compliance with the German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

Responsibility statement by the legal representatives¹⁵

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, 27 March 2023

The Executive Board



Martin Müller-Elschner



Matthias Rust



Leon Struijk

¹⁵ Content not reviewed by the auditor.

CONSOLIDATED FINANCIAL STATEMENTS





Consolidated Balance Sheet as at 31 December 2022

ASSETS	Notes	31 Dec 2022	31 Dec 2021
		€ thousand	€ thousand
A. Current assets			
1. Cash and cash equivalents	(124)	23,051	41,460
2. Current trade receivables	(117) - (120)	31,815	20,364
3. Current receivables from joint ventures	(112) - (115)	0	5
4. Current contract assets	(121) - (122)	10,999	12,605
5. Inventories	(116)	4,271	3,181
6. Other current assets	(123)	30,085	29,596
Current assets, total		100,221	107,211
B. Non-current assets			
1. Tangible fixed assets	(102)	1,850	1,597
2. Intangible assets	(102) - (104)	27,510	11,647
3. Financial assets	(105) - (111)	650	347
4. Rights of use	(72) - (79)	9,620	8,708
5. Non-current trade receivables		0	61
6. Deferred taxes	(153) - (156)	91	745
Non-current assets, total		39,721	23,105
ASSETS, TOTAL		139,942	130,316

		31 Dec 2022	31 Dec 2021
LIABILITIES	Notes	€ thousand	€ thousand
A. Current liabilities			
1. Current trade accounts payable	(48) - (49)	4,748	3,834
2. Contractual liabilities	(121) - (122)	11,867	18,215
3. Current leasing liabilities	(70) - (79)	1,574	1,451
4. Provisions	(149) - (150)	11,225	10,688
5. Tax liabilities	(153) - (157)	2,340	913
6. Other current liabilities	(151) - (152)	17,084	14,986
Current liabilities, total		48,838	50,087
B. Non-current liabilities			
1. Leasing liabilities	(70) - (79)	8,377	7,474
2. Deferred taxes	(153) - (157)	4,568	0
3. Provisions for pensions	(133) - (144)	3,490	4,879
Non-current assets, total		16,435	12,353
C. Equity			
1. Share capital	(125) - (129)	17,719	17,719
2. Additional paid-in capital	(52) - (56), (60)	1,792	1,307
3. Revenue reserve	(52) - (54)	59,455	53,181
4. Other reserve	(55)	-46	-956
5. Own shares	(128) - (132)	-4,251	-3,375
Equity, total		74,669	67,876
LIABILITIES, TOTAL		139,942	130,316

Consolidated income statement for the 2022 financial year

	Notes	2022 € thousand	2021 € thousand
Revenue	(160)	113,234	102,884
Other operating income	(161)	1,197	1,330
Cost of materials	(162)	-23,862	-28,435
Gross profit		90,569	75,779
Personnel expenses	(163)	-60,278	-49,815
Depreciation on non-current assets	(164)	-3,843	-2,526
Other operating expenses	(165)	-11,596	-9,517
Earnings before interest and taxes (EBIT)		14,852	13,921
Financial income		106	0
Financial expenses	(166)	-285	-357
Result from investments accounted for using the equity method	(112) - (115)	52	-38
Earnings before taxes (EBT)		14,725	13,526
Actual income taxes	(153) - (157)	-2,511	-1,630
Deferred taxes	(153) - (157)	-2,082	-2,577
CONSOLIDATED NET RESULT		10,132	9,319

Total shares (in thousands)	(167) - (168)	17,719	17,719
Earnings per share (diluted)	(167) - (168)	0.57	0.53
Weighted average shares outstanding (in thousands)	(167) - (168)	17,490	17,567
Earnings per share (basic)	(167) - (168)	0.58	0.53

Consolidated statement of comprehensive income for the 2022 financial year

	Notes	2022 € thousand	2021 € thousand
Consolidated net result		10,132	9,319
Currency translation	(26), (55)	47	64
Other comprehensive income to be reclassified to the consolidated income statement in subsequent periods		47	64
Actuarial gains from the valuation of pension commitments	(128) - (138)	1,226	343
Income tax effect	(148) - (152)	-363	-86
Other comprehensive income not reclassified to the consolidated income statement in subsequent periods		863	257
Other comprehensive income after taxes		910	321
CONSOLIDATED COMPREHENSIVE INCOME AFTER TAXES		11,042	9,640

Consolidated statement of changes in equity for the financial years 2022 and 2021

Notes	SHARE CAPITAL € thou.	CAPITAL RESERVE € thou.	RETAINED EARNINGS € thou.	OTHER RESERVES € thou.	FOREIGN CURRENCY ADJUSTMENT ITEM € thou.	OWN SHARE AT ACQUISITION COST € thou.	TOTAL € thou.
	(125) - (129)	(52) - (56), (60)	(54)	(55)	(55)	(128) - (132)	
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
Use 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 (€0.20 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
As at 1 January 2022	17,719	1,307	53,181	-1,065	109	-3,375	67,876
Consolidated net income 2022	0	0	10,132	0	0	0	10,132
Other comprehensive income after taxes	0	0	0	863	47	0	910
Consolidated recognised results after tax	0	0	10,132	863	47	0	11,042
Acquisition of own shares	0	0	0	0	0	-4,395	-4,395
Use of own shares	0	146	0	0	0	3,519	3,665
Addition to share-based Executive Board remuneration	0	339	0	0	0	0	339
Dividend distribution (€0.22 per share)	0	0	-3,858	0	0	0	-3,858
AS AT 31 DECEMBER 2022	17,719	1,792	59,455	-202	156	-4,251	74,669

Consolidated statement of cash flows for the 2022 financial year

	Notes	2022 € thou.	2021 € thou.
Consolidated earnings before income taxes for the period		14,725	13,526
Depreciation of fixed assets	(159)	3,843	2,526
Change in provisions	(144) - (145)	365	2,918
Net interest income	(161)	179	357
Equity-settled share-based payment	(57) - (60), (124)	1,634	1,407
Other non-cash expenses / income		-157	80
Share of profit of joint ventures	(109)	-52	38
Result from the disposal of assets		-15	0
		20,522	20,852
Changes in current assets and liabilities		0	0
Inventories	(110)	-1,090	575
Receivables and other assets	(111) - (118)	-9,733	691
Liabilities (excluding provisions)		-3,913	-1,260
		5,786	20,858
Interest paid		-137	-255
Income taxes paid		-1,176	-1,524
Cash flow from operating activities		4,473	19,079
Payments made for investments in fixed assets		-1,914	-1,174
Payments for acquisition of shares in consolidated subsidiaries		-10,811	0
Payments for the acquisition of minority interests		-251	0
Income from disposals of fixed assets		4	0
Interest received		106	0
Cash flow from investing activities		-12,866	-1,174
Acquisition of own shares	(123) - (127)	-4,395	-2,454
Payments for the repayment of leasing liabilities	(70) - (79)	-1,763	-1,572
Payment of dividends		-3,858	-3,515
Cash flow from financing activities		-10,016	-7,541
Cash and cash equivalents at the beginning of the period		41,460	31,096
Net change in cash and cash equivalents		-18,409	10,364
CASH AND CASH EQUIVALENTS AT THE END OF THE PERIOD	(119)	23,051	41,460

+ = cash inflow / - = cash outflow

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS





Notes to the consolidated financial statements as at 31 December 2022

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 2022 and the Group management report for the 2022 financial year on 27 March 2023 and then submitted them to the Supervisory Board for approval. The Supervisory Board approved them at its meeting on 29 March 2023.
- 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 837 in 2022 (2021: 761).
- 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, Leipzig, Hannover (Germany), Olten (Switzerland), Vienna (Austria), Utrecht (Netherlands), Paris (France), Rome (Italy), Birmingham (UK), Stockholm (Sweden), Budapest (Hungary), Istanbul (Turkey), Poznan (Poland), New York (United States), Montreal (Canada), 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.

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 2024. According to the IASB, early application of the amendments is permitted, but requires EU endorsement.

In May 2021, the IASB published amendments to IAS 12 that limit the scope of the exception rule for initial recognition under IAS 12 so that it no longer applies to transactions that give rise to taxable and deductible temporary differences that are equal in amount. The amendments to IAS 12 are effective for annual reporting periods beginning on or after 1 January 2023. Earlier application is permitted. This does not result in any changes for the consolidated financial statements of IVU. Corresponding deferred tax assets and deferred tax liabilities were already recognised for leases in previous years.

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. The basis for the valuation of acquired software in the context of a purchase price allocation are the expected revenue, anticipated license payments and saved license installments.
- 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 2022 was €18,272 thousand (2021: €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. Changes in assumptions and estimates over time based on better knowledge or contract changes can lead to adjustments in the total planned costs and consequently to effects on revenue recognition and earnings. In the case of a major project, valued according to the percentage-of-completion method, a significant reduction of expected project costs was made due to the reassessment of project risks as the project progressed. This resulted in an increase in revenues and EBIT of around EUR 1.5 million in the fiscal year. Further details on revenue from projects recognised but not yet invoiced can be found in sections (121) et seq.

- 15 Loss allowance for expected credit losses on trade receivables and contract assets:** The Group calculates the expected losses from the receivables as at the end of the reporting period using the simplified approach according to IFRS 9 paragraph 5.5.15 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 (121) et seq.

- 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 €335 thousand (2021: €2,809 thousand) as at 31 December 2022. As far as possible, the balance sheet shows netted figures, hence the reporting of a deferred tax asset of €91 thousand and a deferred tax liability of €4,568 thousand. Further details can be found in paragraphs (153) through (157).
- 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 €3,490 thousand (2021: €4,879 thousand) as at 31 December 2022. Further details can be found in paragraph (133) 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 2022. 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. The scope of consolidation has expanded in 2022 due to the acquisition of LBW Optimization GmbH and the establishment of the subsidiaries in Hungary and Sweden. 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 Schweiz AG Olten, Switzerland ('IVU Schweiz')	100.0
IVU Traffic Technologies Austria GmbH Wien, Austria ('IVU Austria')	100.0
IVU Benelux B.V. Utrecht, Netherlands ('IVU Benelux')	100.0
IVU Traffic Technologies UK Ltd. Birmingham, Great Britain ('IVU UK')	100.0
IVU Traffic Technologies Inc. Wilmington, Delaware, USA ('IVU USA')	100.0
IVU Traffic Technologies Nordic AB Stockholm, Sweden ('IVU Nordic')	100.0
IVU Traffic Technologies Hungary Kft. Budapest, Hungary ('IVU Hungary')	100.0
LBW Optimization GmbH Berlin, Germany ('LBW GmbH')	100.0
IVU Chile Ltda. Santiago de Chile, Chile ('IVU Chile')	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 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 = 1.0155; 2021: 0.9680). Income and expenses are translated at the weighted average exchange rate for the financial year (CHF/EUR = 0.9953; 2021: 0.9250).

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 = 1.1275; 2021: 1.1901). Income and expenses are translated at the weighted

average exchange rate for the financial year (GBP/EUR = 1.1729; 2021: 1.1636).

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 = 0.9376; 2021: 0.8829). Income and expenses are translated at the weighted average exchange rate for the financial year (USD/EUR = 0.9518; 2021: 0.8460).

The functional currency of the foreign operation IVU Nordic is its national currency (Swedish crown). 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 (SEK/EUR = 0.0899; 2021: not relevant). Income and expenses are translated at the weighted average exchange rate for the financial year (SEK/EUR = 0.0941; 2021: not relevant).

The functional currency of the foreign operation IVU Hungary is its national currency (Hungarian forint). 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 (HUF/EUR = 0.0025; 2021: not relevant). Income and expenses are translated at the weighted average exchange rate for the financial year (HUF/EUR = 0.0026; 2021: not relevant).

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 = 0.0011; 2021: 0.0010). Income and expenses are translated at the weighted average exchange rate for the financial year (CLP/EUR = 0.0011; 2021: 0.0011).

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 the Group's cash-generating unit that is expected to benefit from the combination, irrespective of whether other assets or liabilities of the acquiree are assigned to this unit. 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. The software identified as part of the acquisition of LBW Optimization GmbH, which will be amortised over a period of eight years, is a special case.

- 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 2022 and 2021 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 2021 and 2022 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 2022 are as follows:

	Due € thou.	Within 1 year € thou.	More than 1 year € thou.	Total € thou.
Trade payables	89	4,659	0	4,748
Other liabilities	0	13,642	0	13,642
TOTAL	89	18,301	0	18,390

Given the short-term nature of financial liabilities, as at 31 December 2022 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 2021 were 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.

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 ended on 31 December 2022. The physical delivery of the shares was 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 that actually have to be 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 has settled its obligations under the Long Term Incentive Plan by repurchasing treasury shares and issuing them to Executive Board members on the settlement date after the end of the reporting period.

59 **Determination of fair values:** The fair value of the share programme at the date of granting 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).

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 2022.
- 68 In 2022, IVU AG recognised funding under various government projects for the development of software applications and further state development funding totalling €680 thousand (2021: €589 thousand). The income is included in other operating income.

Research and development costs

- 69 Research and development costs amounted to €6,361 thousand in the 2022 financial year (2021: €5,963 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 using a single model (right-of-use-model). It recognises liabilities for lease payments and rights of use for the right to use the underlying asset. For short-term leases with a duration less than 12 months or leases for which the underlying asset is below €5 thousand, use is made of the simplification rule not to activate a leasing 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.	Hard-ware € thou.	Total € thou.
As at 1 January 2022	8,560	148	0	8,708
Additions	2,344	154	229	2,727
Disposals	157	0	0	157
Depreciation expense	1,498	117	46	1,661
Currency difference	3	0	0	3
AS AT 31 DECEMBER 2022	9,252	185	183	9,620

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

	Property rental € thou.	Cars € thou.	Hard-ware € 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

76 The following table shows the carrying amounts, the changes during the reporting period as well as a maturity analysis of the lease liabilities:

	2022 € thou.	2021 € thou.
As at 1 January	8,925	10,375
Additions	3,173	59
Disposals	-153	0
Interest accrued	-297	100
Payments	1,700	1,612
Currency difference	3	3
AS AT 31 DECEMBER	9,951	8,925
Of which due within 1 year	1,574	1,451
Of which due between 1 and 5 years	4,623	3,951
Of which due in more than 5 years	3,754	3,523

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

	2022 € thou.	2021 € thou.
Depreciation expense for rights of use	1,661	1,525
Interest expenses for lease liabilities	148	102
Expenses for short-term leases (included in other operating expenses)	63	40
Expenses for leases with an asset of low value	1	0
Variable lease payments	0	0
TOTAL AMOUNT RECOGNISED IN PROFIT OR LOSS	1,873	1,667

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 €1,764 thousand in 2022 (2021: €1,652 thousand). In addition, the Group reported non-cash additions to rights of use and lease liabilities of €2,727 thousand in 2022 (2021: €56 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 (160) 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 2022 financial year because the IVU Group has only one reportable segment 'IVU Total' in the 2021 and 2022 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 2022, 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 2022 and 31 December 2021, 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 €18,272 thousand (2021: €11,349 thousand).
- 104 The recoverable amount was calculated on the basis of the value in use, applying the discounted cash flow method. The impairment test is based on the cash flow forecast for the cash-generating unit over a period of eight 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 6.9% on average. The cash flows shown were derived from past information and contractually agreed orders for the 2023 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 12.59% before taxes (2021: 11.02%) 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.

Acquisition of LBW Optimization GmbH

- 105 On 1 April 2022, IVU Traffic Technologies AG, Berlin, Germany, concluded a share purchase agreement for the purchase of 100% of the shares in LBW Optimization GmbH (LBW GmbH), Berlin, Germany. The purchase agreement was concluded on 1 April 2022 between the seven shareholders of LBW GmbH as the seller and IVU Traffic Technologies AG as the buyer.

The closing of the acquisition of the shares took place on 7 April 2022. LBW GmbH has been included in the consolidated financial statements since this date.

- 106 The background to the transaction is the aim to secure long-term exclusive access to LBW GmbH's world-leading optimisation algorithms for resource planning in the transport sector. LBW GmbH develops mathematical optimisation solutions for planning systems for local transport and rail and air traffic, offering high-performance algorithms for high solution quality and performance. Vehicle working and duty scheduling, planning in the field of roster layouts as well as coordination mechanisms of electronic local transport are part of LBW GmbH's business

model. In the 2021 financial year, LBW GmbH generated revenue of €3.6 million and reported an annual result of €1.4 million (local German GAAP).

- 107 An amount of €13,492 thousand was agreed as the total purchase price for the shares. The total purchase price comprises a cash purchase price (€11,122 thousand) and a non-cash purchase price (€2,370 thousand) in the form of 130,914 bearer shares in IVU.

Incidental acquisition costs of €148 thousand were incurred as part of the transaction and were recognised as an expense under other operating expenses in the 2022 financial year.

- 108 The initial consolidation was carried out in accordance with IFRS 3 “Business Combinations” using the purchase method. The fair values of the acquired and identified assets and liabilities are as follows:

	€ thou.
Other tangible and intangible assets	86
Software	9,262
Receivables and other assets	358
Cash and cash equivalents	311
Liabilities incurred	-669
Deferred tax liabilities	-2,779
Fair value of net assets	6,569
Goodwill	6,923
Consideration transferred	13,492

- 109 Goodwill reflects employee expertise and related synergies in terms of business development and earnings prospects. The goodwill is not deductible for tax purposes.
- 110 The company was included in the scope of consolidation as of 1 April 2022. Since the date of initial consolidation, LBW GmbH has contributed revenue of €512 thousand and earnings after taxes of €-1,563 thousand to IVU’s earnings in the 2022 financial year. If the acquired company had already been included in the scope of consolidation as at 1 January 2022, IVU’s revenue would have amounted to €113,400 thousand and earnings after taxes to €10,167 thousand.

Acquisition of shares in TRENOLab S.r.l.

- 111 In the 2022 financial year, IVU AG acquired 20% of the shares in the Italian company TRENOLab S.r.l., Gorizia, Italy. This investment is reported under

financial assets at its acquisition cost of €251 thousand, which approximate fair value as of the reporting date.

Investments accounted for using the equity method

- 112 For accounting policies, please see paragraphs (37) et seq.
- 113 As at 31 December 2022, the carrying amount of financial assets accounted for using the equity method was €399 thousand (2021: €347 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.
- 114 EBS was founded in the financial year 2019. It has no goodwill.
- 115 The following table summarises the financial information of EBS for the 2022 and 2021 financial year as presented in its own financial statements:

	31 Dec 2022 € thou.	31 Dec 2021 € thou.
Ownership interest	74 %	74 %
Non-current assets	9	6
Current assets	159	150
Cash and cash equivalents	134	81
Financial liabilities	0	-5
Non-financial liabilities	-63	-63
Net assets (100%)	239	169
Group share of net assets (74%)	177	125
Carrying amount of the share in the Group as at 31 December	399	347
	1 Jan 2021 to 31 Dec 2021	1 Jan 2020 to 31 Dec 2020
COMPREHENSIVE INCOME (100%)	70	-51
Group share in comprehensive income (74%)	52	-38

In the reporting year, pro rata income to be recognised amounting to €52 thousand (2021: €-38 thousand) is recognised in the consolidated income statement.

Current assets

Inventories

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

	31 Dec 2022 € thou.	31 Dec 2021 € thou.
Merchandise	815	1,155
Advance payments	3,456	2,026
TOTAL	4,271	3,181

Trade receivables

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

	31 Dec 2022 € thou.	31 Dec 2021 € thou.
Trade receivables	31,946	20,596
Provisions for expected loss	-131	-232
TOTAL	31,815	20,364

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

The write-downs recognised developed as follows:

	2022 € thou.	2021 € thou.
As at 1 January	232	567
Charge for the year	0	156
Utilised	-6	-225
Unused amounts reversed	-95	-266
As at 31 December	131	232

- 119 The reversal through profit or loss results from incoming payments for receivables that had been written down individually until 31 December 2021.

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

	31 Dec 2022 € thou.	31 Dec 2021 € thou.
Neither past due nor impaired	25,454	16,063
Past due, not impaired		
< 30 days	5,413	2,595
31 to 60 days	418	543
61 to 90 days	170	449
> 90 days*	360	714
	6,361	4,301
AS AT 31 DECEMBER	31,815	20,364
Of which current receivables	31,815	20,364

* of which paid by 28 February 2023: €198 thousand (previous year: €237 thousand)

Contract assets/contract liabilities

- 121 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.

- 122 As at 31 December 2022, there were contract assets of €10,999 thousand (previous year: €12,605 thousand).

Contract liabilities of €11,867 thousand (previous year: €18,215 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 €16.1 million (previous year €8.6 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 (160).

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

Other current assets

- 123 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 2022 € thou.	31 Dec 2021 € thou.
Notice deposits	25,000	25,000
Demand deposits to secure guarantees	1,168	1,168
Receivables from tax credit	1,693	895
Prepaid expenses	1,865	1,801
Other	359	732
TOTAL	30,085	29,596

Cash and cash equivalents

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

	31 Dec 2022 € thou.	31 Dec 2021 € thou.
Bank balances	23,048	41,456
Cash balances	3	4
TOTAL	23,051	41,460

Equity

- 125 Please see the statement of changes in consolidated equity for details.
- 126 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 (2021: €17,719,160.00) and consists of 17,719,160 (2021: 17,719,160) no-par value shares.
- 127 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 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 2021 and 2022, the Executive Board did not make use of the authorisations.

- 128 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.

- 129 Based on this resolution, the Executive Board approved buyback programs for treasury shares in the 2022 financial year on 11 January, 8 April and 29 July. 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 250,000 shares were repurchased at a total price of €4,340 thousand. This corresponds to 1.41% 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 57,324 no-par value shares were issued (44 shares at an issue price of €20.00 each, 2,600 at an issue price of €19.18 each, 31,938 at an issue price of €18.39 each, 17,224 at an issue price of €16.26 each and 5,518 at an issue price of €14.79 each) for all IVU employees in Germany in the 2022 financial year. The members of the Executive Board received 15,458 shares as part of their variable remuneration at an issue price of €19.18 each. Furthermore, 130,914 shares were transferred at an issue price of €18.10 as components of the purchase price for

the acquisition of LBW Optimization GmbH. The number of shares issued corresponds to 1.15% of the no-par value shares in the share capital of IVU Traffic Technologies AG.

- 130 As at 31 December 2022, IVU AG held 258,026 treasury shares. These are deducted from equity at average acquisition cost as a separate item of €4,251 thousand (2021: €3,375 thousand).
- 131 The development of treasury shares for the financial year is therefore as follows:

	2022 shares	2021 shares
Treasury shares as at 1 January	211,722	142,074
Purchased in the financial year	250,000	124,551
Transferred to the Executive Board	-15,458	-14,317
Transferred to employees	-57,324	-40,586
Transfer as part of the acquisition of LBW Optimization GmbH	-130,914	0
TREASURY SHARES AS AT 31 DECEMBER	258,026	211,722

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

	2022 shares	2021 shares
Shares in circulation as at 1 January	17,507,438	17,577,086
Acquisitions of treasury shares	-250,000	-124,551
Transfer of treasury shares	203,696	54,903
SHARES IN CIRCULATION AS AT 31 DECEMBER	17,461,134	17,507,438

Non-current liabilities

Pension provisions

- 133 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.
- 134 The amount of the pension obligation (defined benefit obligation) was calculated using actuarial methods on the basis of the following assumptions:

	2022 %	2021 %
Discount rate	4.21	1.31
Salary trend	2.50	2.50
Pension trend	2.00	2.00
Turnover	3.00	3.00

- 135 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:

	2022 € thou.	2021 € thou.
Service cost	2	3
Interest expense	63	51
EXPENSE FOR THE PERIOD	65	54

- 136 The following table shows the composition of pension obligations:

	2022 € thou.	2021 € thou.
Present value of pension obligations, 31 Dec	3,669	5,078
Less fair value of plan assets	179	199
PROVISIONS FOR PENSIONS	3,490	4,879

- 137 The following table shows the development of pension obligations:

	2022 € thou.	2021 € thou.
Present value of pension obligations, 1 Jan	5,078	5,494
Service cost	2	4
Interest expense	65	54
Pension payments	-248	-245
Actuarial gains (losses) from changes in financial assumptions recognised in equity (other income)	-1,235	-185
Actuarial gains (losses) from experience adjustments recognised in equity (other income)	7	-44
PRESENT VALUE OF PENSION OBLIGATIONS, 31 DEC	3,669	5,078

138 The following table shows the development of plan assets:

	2022 € thou.	2021 € thou.
Fair value of plan assets, 1 Jan	199	242
Net return on plan assets	2	3
Additions to plan assets	0	0
Payments from plan assets	-19	-160
Actuarial losses/gains recognised in equity (other income)	-3	114
PLAN ASSETS, 31 DEC	179	199

139 A quantitative sensitivity analysis of the main assumptions as at 31 December 2022 is presented below.

Assumption	Interest sensitivity		Pension trend sensitivity
	Increase by 0.50%	Decrease by 0.50 %	Increase by 1.00%
Effect on defined benefit obligation (in € thou.)	-160	+ 173	+ 344

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.

140 The average term of defined benefit obligations as at the end of the reporting period is 9.32 years (2021: 11.37 years).

141 The expected return on plan assets is based on a discount factor of 4.21% (2021: 1.31%). No contributions will be paid into the plan in the next twelve months.

142 The plan assets are composed exclusively of cash.

143 The anticipated payment structure for the years 2023 to 2032 is shown below:

Pension payments made	€ thou.
2021	245
2022	248

Expected pension payments	€ thou.
2023	274
2024	274
2025	275
2026	274
2027	273
2028 - 2032	1,318

144 Defined contribution plans exist only in the form of the mandatory contributions by IVU AG to the state pension. Employer contributions of €3,457 thousand (2021: €3,036 thousand) were paid in the reporting year.

Lease liabilities

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

Current liabilities

Financial liabilities

146 IVU has the following credit facilities:

Credit facility	€ thou.	Utilisation 31 Dec 2022	Utilisation 31 Dec 2021
		€ thou.	€ thou.
HSBC	1,000	0	0
Monte dei Paschi di Siena	150	0	0

147 The revocable credit lines with HSBC remains unchanged at €1,000 thousand at the end of the reporting period. The lines of credit were not utilised in the financial year. Collateral in favour of the banks has not been agreed.

148 Expenses for interest and commission amounted to €137 thousand (2021: €144 thousand) in the 2022 financial year.

Provisions

149 Provisions developed as follows:

	As at 1 Jan 2022 € thou.	Uti- lised € thou.	Unused amounts re- versed € thou.	Arising during the year € thou.	As at 31 Dec 2022 € thou.
War- ranty	10,390	1,710	548	2,826	10,958
Im- pend- ing loss	298	100	56	125	267
	10,688	1,810	604	2,951	11,225
of which current	10,688				11,225

150 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

151 Other current liabilities are composed as follows:

	31 Dec 2022 € thou.	31 Dec 2021 € thou.
Staff-related liabilities	10,286	8,106
Liabilities from contract risks	564	246
Liabilities social security	127	137
Liabilities from outstanding invoices	2,493	3,849
Other	172	117
	13,642	12,455
Tax liabilities (sales tax, wage tax)	3,442	2,531
TOTAL	17,084	14,986

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

Actual income taxes and deferred taxes

153 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 2022 was 15.1% (2021: 15.1%). The corporation tax rate for the 2021 and 2022 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 2022 financial year is 30.95% (2021: 30.92%).

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

	2022 € thou.	2021 € thou.
Current tax expenses		
Current year and prior periods (expense -, income +)	-2,511	-1,630
Deferred tax income/expense		
Change to tax loss carryforwards	-2,474	-2,548
Intangible Assets	261	0
Tax-effective goodwill amortisation	-2	0
Change of right of use	-231	445
Change to long-term order production	472	503
Change of lease liabilities	265	-440
Change to pension provisions	-60	-22
Change to other assets	0	-105
Change to other provisions	-313	-410
	-2,082	-2,577
EXPENSE - / INCOME + FROM INCOME TAXES	-4,593	-4,207

155 The following table shows the reconciliation of income tax expense:

	2022 € thou.	2021 € thou.
IFRS earnings (before taxes)	14,725	13,526
Tax rate	30.95 %	30.92 %
Notional income tax expense	-4,557	-4,182
Off-balance sheet tax additions/reductions	-40	-47
Non-capitalized new loss carryforwards	0	-8
Utilisation of tax loss carryforwards	7	4
Permanent differences	-49	0
Tax expense from prior periods*	0	31
Effects of tax rate differences	37	10
At-equity valuation	16	-12
Other	-7	-3
CURRENT TAX EXPENSES / INCOME	-4,593	-4,207

* of which: current taxes €0 thousand (2021: €15 thousand), deferred taxes €0 thousand (2021: €16 thousand)

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

	31 Dec 2022 € thou.	Delta 2022	31 Dec 2021 € thou.
Deferred tax assets			
Asset difference from offsetting of assets	1	0	1
Pension provisions	297	-422	719
Other provisions	184	-313	497
Lease liabilities	3,007	265	2,742
Tax losses carried forward	335	-2,474	2,809
	3,824	-2,944	6,768
Deferred tax liabilities			
Other assets	-25	0	-25
Intangible Assets	-2,518	-2,518	0
Tax-effective goodwill amortisation	-1,740	-2	-1,738
Right of use	-2,907	-231	-2,676
Long-term order production	-1,112	472	-1,584
	-8,302	-2,279	-6,023
Deferred tax assets/ liabilities, net	-4,478	-5,223	745
of which affecting the income situation		-2,082	
of which equity changes		-362	
of which consolidation LBW GmbH		-2,779	
Carrying amount			
Deferred tax assets	91	-654	745
Deferred tax liabilities	-4,568	-4,568	0

157 The IVU Group has the following tax loss carryforwards:

	31 Dec 2022 € thou.	31 Dec 2021 € thou.
Loss carryforward for German trade tax	92	6,543
Loss carryforward for German corporation tax	2,033	11,509

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

158 In 2019 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

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

Revenue from Contracts with Customers

160 Revenue is distributed to the various revenue types as follows:

	2022 € thou.	2021 € thou.
Goods/services/works contracts	34,931	35,285
Licences	34,765	30,876
Maintenance/Hosting	43,538	36,723
TOTAL	113,234	102,884

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 (121) et seq.) in place as at 31 December 2022, revenue of €33 million is likely to be realised in subsequent years (estimation for previous year: €46 million), of which €9 million (previous year: €19 million) after more than twelve months.

Of the maintenance and hosting contracts in place as at 31 December 2022, revenue of at least €42 million (previous year: €39 million) is likely to be realised in the 2023 financial year.

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

Other operating income

161 Other operating income is composed as follows:

	2022 € thou.	2021 € thou.
Government grants	680	589
Income from the reversal of impairment losses	95	265
Exchange rate gains	134	124
Other	288	352
TOTAL	1,197	1,330

Cost of materials

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

	2022 € thou.	2021 € thou.
Cost of purchased goods	10,547	12,021
Cost of purchased services	13,315	16,414
TOTAL	23,862	28,435

Staff costs

163 Staff costs distribute as follows:

	2022 € thou.	2021 € thou.
Wages and salaries	51,913	42,442
Social security, post-employment and other employee benefit costs	8,365	7,373
(Of which for pensions)	3,457	3,036
TOTAL	60,278	49,815

Depreciation and amortisation on assets

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

	2022 € thou.	2021 € thou.
On intangible assets	1,141	159
On rights of use	1,661	1,525
On property, plant and equipment	1,041	842
TOTAL	3,843	2,526

Amortisation of intangible assets in the amount of €868 thousand relates to the software capitalised as part of the acquisition of LBW GmbH Optimization GmbH.

Other operating expenses

165 Other operating expenses can be grouped as follows:

	2022 € thou.	2021 € thou.
Selling expenses	2,133	1,191
Operating expenses	3,959	3,802
Administrative expenses	4,294	3,291
Other	1,210	1,233
TOTAL	11,596	9,517

With only a slight increase in operating costs, the revival of travel and attendance at trade fairs that had previously been curbed due to the coronavirus pandemic, resulted in higher selling expenses. Compared to the previous year, administrative expenses include higher legal and consulting costs as well as higher external expenses for recruiting and training. Other expenses included price losses of €321 thousand (previous year: €107 thousand).

Financial expenses

166 The financial expenses are composed as follows:

	2022 € thou.	2021 € thou.
Interest expense Rights of use	148	102
Financing costs for guarantees	121	125
Interest expense banks	10	13
Other	6	117
TOTAL	285	357

Earnings per share

167 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 (131).

	2022	2021
Net profit / loss for the period (€ thousand)	10,132	9,319
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)	0.57 €	0.53 €
Number of circulating weighted shares (thousands)	17,489	17,567
BASIC EARNINGS PER SHARE (EUR/SHARE)	0.58 €	0.53 €

168 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

169 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 (2021: €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 25 May 2022, a dividend of €0.22 per dividend-bearing share, €3,858,000 in total, was distributed. The composition of cash and cash equivalents is shown in paragraph (124).

F. NOTES TO SEGMENT REPORTING

170 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

171 The IVU Group realised 53.2%, 11.1%, 8.2% and 8.7% 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.

in € thousand	GERMANY		REST OF EUROPE		NON-EUROPE		TOTAL	
	2022	2021	2022	2021	2022	2021	2022	2021
Revenue from transactions with external customers	60,235	60,151	51,142	40,973	1,857	1,760	113,234	102,884
Assets per region	124,572	122,055	15,209	7,495	70	21	139,851	129,571
Net deferred tax assets by region	29	743	62	1	0	0	91	744
Investment expenditure	1,216	1,094	698	80	0	0	1,914	1,174
Depreciation	3,477	958	366	1,568	0	0	3,843	2,526

172 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 €15.2 million with a rail Group in the financial year (14.0% of Group sales

revenue). In the previous year, IVU Group generated sales revenue of €19.2 million with a rail Group (18.7% of previous year's Group sales revenue).

G. OTHER DISCLOSURES

Commitments and contingencies

Letters of credit

173 As at the end of the reporting period, letters of credit of €10,806 thousand, €271 thousand of which in foreign currency (2021: €11,210 thousand, €1,927 thousand of which in foreign currency) were assumed by various banks for the IVU Group.

Employees

174 The average number of employees of the IVU Group was 837 in the financial year (2021: 761). The breakdown of employees by function is as follows:

	2022	2021
Project work/sales	384	349
Production/software development	350	314
Administration	103	98
TOTAL	837	761

Auditing and consultancy fees

175 The auditor's fees recognised as expenses in the financial year amount to €185 thousand for audits of financial statements (previous year: €120 thousand) and €20 thousand for other services within the scope of a project-accompanying audit (previous year: €0 thousand).

Related party disclosures

176 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

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

Related persons

Executive Board members of IVU AG

- Martin Müller-Elschner (CEO)
- Matthias Rust (Deputy Chairman 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)
Deputy Chairman of the IVU Foundation for People, Nature, and Climate Protection, Berlin,
Professor emeritus 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.,
Visiting 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,
Vice Chairwoman of the Supervisory Board and Chairwoman of the Audit Committee of Charité Research Organisation GmbH, Berlin,
Member of the Supervisory Board of Schöler Fördertechnik AG, Rheinfelden,
Member of the Finance and Tax Committee and Chairwoman of the "International Tax Issues" sub-committee of the DIHK, Berlin,
Member of the economic advisory board of the cathedral chapter Brandenburg, Brandenburg a.d.H.,

Member of the examination and audit committee of Berliner Stadtmission, 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 (ret.) of birkle IT AG, Munich,
Deputy Chairman of the Advisory Board of Schürfeld Gruppe, Hamburg.
- Prof. Barbara Lenz, Berlin
Director of the Institute of Transport Research (ret.) at the German Aerospace Centre, Berlin,
Professor for Traffic Geography (ret.) at Humboldt University of Berlin,
Visiting Professor for Traffic Geography at Humboldt University of Berlin,
Member of the Supervisory Board and the Audit Committee of Berliner Verkehrsbetriebe (BVG), Berlin,
Member of acatech (National Academy of Science and Engineering) – Deutsche Akademie der Technikwissenschaften e.V., Munich.
- Benedikt Woelki, Berlin
Customer Service Rail team leader at IVU Traffic Technologies AG, Berlin.
- Axel Zimmermann, Düren
(Member of the General Committee)
Quality manager at IVU Traffic Technologies AG, Aachen.

Related party transactions

- 178 There were no business transactions between related parties and companies of the IVU Group in the reporting year or the previous year.

Remuneration of the Executive Board and the Supervisory Board

- 179 The Executive Board of IVU AG received remuneration of €2,087 thousand (2021: €2,015 thousand) in the 2022 financial year. The remuneration of the Executive Board comprises a fixed (€876 thousand) and a variable portion (€1,211 thousand). The variable portion amounted to 58% (2021: 58%) of total remuneration in the year under review.

180 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 ended on 31 December 2022. The physical delivery of the shares has been 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 to be 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 (2021: €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. Total emoluments in accordance with Section 314 no. 6 HGB amounted to €2,426 thousand (2021: € 2,354 thousand). All emoluments in the financial year were due in the short term. For further explanations, please refer to paragraphs (57) to (60).

181 Pension provisions of €1,764 thousand (2021: €2,382 thousand) were reported for former members of the Executive Board. Furthermore, pension payments of €151 thousand (2021: €151 thousand) were made for former members of the Executive Board.

182 The Supervisory Board received remuneration of €194 thousand in 2022 (2021: €194 thousand). The remuneration of the Supervisory Board comprises a fixed basic remuneration and a meeting fee for ordinary Supervisory Board meetings.

183 The shareholdings of the members of the Executive Board and the Supervisory Board are as follows:

Executive Board	Shares	Shares
	31 Dec 2022	31 Dec 2021
Martin Müller-Elschner	245,967	239,824
Matthias Rust	26,290	21,905
Leon Struijk	30,000	25,000
Supervisory Board		
Prof. Herbert Sonntag	856,000	866,000
Ute Witt	0	2,000
Prof. Barbara Lenz	1,500	1490
Benedikt Woelki	331	172
Axel Zimmermann	1,082	1,101

Supplementary Report

- 184 Since 31 December 2022, there have been no events of particular significance that have affected the situation of the Group regarding earnings, finances and assets.

Disclosures on the German Corporate Governance Code

- 185 The 2023 declaration of compliance was issued by the Executive Board and the Supervisory Board on 15 February 2023 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, 27 March 2023



Martin Müller-Elschner



Matthias Rust



Leon Struijk

CONSOLIDATED FIXED-ASSETS SCHEDULE

DEVELOPMENT IN INTANGIBLE ASSETS AND PROPERTY, PLANT AND EQUIPMENT 2022

HISTORICAL ACQUISITION/PRODUCTION COSTS

	As at 1 Jan 2022 € thou.	Change in consolida- tion scope € thou.	Addition € thou.	Transfer € thou.	Disposal € thou.	As at 31 Dec 2022 € thou.
I. Intangible assets						
1. Industrial property rights and licenses, software	8,150	13	10,071	0	201	18,033
2. Goodwill	14,626	0	6,923	0	0	21,549
3. Primary intangible assets	15,503	0	0	0	0	15,503
	38,279	13	16,994	0	201	55,085
II. Property						
1. Other equipment, operating and office equipment	11,084	136	1,229	7	1,055	11,401
2. Advance payments and assets under construction	7	0	1	-7	0	1
	11,091	136	1,230	0	1,055	11,402
III. Financial assets						
1. Investments	347	0	303	0	0	650
	347	0	303	0	0	650
IV. Rights of use						
1. Real estate	12,306	0	2,344	0	590	14,060
2. Other equipment, operating and office equipment	364	0	383	0	162	585
	12,670	0	2,727	0	752	14,645
	62,387	149	21,254	0	2,008	81,782

DEPRECIATION

RESIDUAL BOOK VALUES

As at 1 Jan 2022 € thou.	Change in consolidation scope € thou.	Addition € thou.	Currency difference € thou.	Disposal € thou.	As at 31 Dec 2022 € thou.	As at 31 Dec 2022 € thou.	As at 31 Dec 2021 € thou.
7,852	3	1,141	0	201	8,795	9,238	298
3,277	0	0	0	0	3,277	18,272	11,349
15,503	0	0	0	0	15,503	0	0
26,632	3	1,141	0	201	27,575	27,510	11,647
9,494	57	1,041	0	1,040	9,552	1,849	1,590
0	0	0	0	0	0	1	7
9,494	57	1,041	0	1,040	9,552	1,850	1,597
0	0	0	0	0	0	650	347
0	0	0	0	0	0	650	347
3,746	0	1,498	-3	433	4,808	9,252	8,560
216	0	163	0	162	217	368	148
3,962	0	1,661	-3	595	5,025	9,620	8,708
40,088	60	3,843	-3	1,836	42,152	39,630	22,299

CONSOLIDATED FIXED-ASSETS SCHEDULE

DEVELOPMENT IN INTANGIBLE ASSETS AND PROPERTY, PLANT AND EQUIPMENT 2021

HISTORICAL ACQUISITION COSTS

	As at 1 Jan 2021 € thou.	Addition € thou.	Reclassification € thou.	Disposal € thou.	As at 31 Dec 2021 € 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					
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					
1. Investments	385	0	0	38	347
	385	0	0	38	347
IV. Right of use					
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 € thou.	Addition € thou.	Currency difference € thou.	Disposal € thou.	As at 31 Dec 2021 € thou.	As at 31 Dec 2021 € thou.	As at 31 Dec 2020 € thou.
7,750	159	0	57	7,852	298	131
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	11,480
272	0	0	272	0	0	17
8,928	842	3	279	9,494	1,590	1,216
0	0	0	0	0	7	4
9,200	842	3	551	9,494	1,597	1,237
0	0	0	0	0	347	0
0	0	0	0	0	347	0
2,417	1,366	-3	34	3,746	8,560	6,966
236	159	0	179	216	148	232
2,653	1,525	-3	213	3,962	8,708	7,198
38,383	2,526	0	821	40,088	22,299	19,915

AUDITOR'S REPORT

Reproduction of the audit opinion

We have issued the following unqualified audit opinion, signed in Berlin on 28 March 2023, on the consolidated financial statements and the Group management report of IVU Traffic Technologies AG, Berlin, for the financial year from January 1 2022 to December 31 2022 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, 2022, 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, 2022 to December 31, 2022 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, 2022 to December 31, 2022 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, 2022 and of its results of operations for the fiscal year from January 1, 2022 to December 31, 2022 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 § 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 AUDITORS OF THE CONSOLIDATED FINANCIAL STATEMENTS AND OF 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, 2022 to December 31, 2022. 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 113.2 million in the consolidated financial statements as of December 31, 2022. 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 summarized non-financial statement contained in section B of the Group management report
- the separately published corporate governance statement referred to in section E. of the Group 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 section "D. Forecast, risk and opportunity report" of 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

The executive directors are responsible for the preparation of the consolidated financial statements that 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 that the consolidated financial statements, in compliance with these requirements, give a true and fair view of the assets, liabilities, financial position and financial performance of the group. In addition, the executive directors are responsible for such internal control as they have determined necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud (i.e. fraudulent financial reporting and misappropriation of assets) 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 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 Financial Statement Audits promulgated by the Institut der Wirtschaftsprüfer (IDW) and supplementary compliance with the ISAs 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 this 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 as a whole, 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 § 317 (3A) HGB.

Assurance opinion

In accordance with § 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 "IVU_AG_KA_KLB_ESEF-2022-12-31" 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 § 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, 2022 to December 31, 2022 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 § 317 (3a) HGB and IDW Auditing Standard: Audit of Electronic Reproductions of Financial Statements and Management Reports Prepared for Disclosure Purposes in Accordance with § 317 (3a) HGB (IDW PS 410 (06.2022)). 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 from IAASB.

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 § 328 (1) sentence 4 no. 1 of the HGB and for the award of the consolidated financial statements in accordance with § 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 § 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 § 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 25, 2022. We were appointed by

the Supervisory Board on January 17, 2023. 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).

OTHER MATTERS - USE OF THE AUDIT OPINION

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 business register — 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 28, 2023

BDO AG
Wirtschaftsprüfungsgesellschaft

Sartori
Public Auditor

Blohm
Public Auditor



FINANCIAL CALENDAR 2022

WEDNESDAY, 29 MARCH 2023

Annual Report 2022

WEDNESDAY, 24 MAY 2023

Quarterly report as at 31 March

THURSDAY, 25 MAY 2023

Annual General Meeting

WEDNESDAY, 23 AUGUST 2023

Half-year report as at 30 June

WEDNESDAY, 22 NOVEMBER 2023

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)
- Leon Struijk
- Matthias Rust

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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The Annual Report 2022 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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