

# ANNUAL REPORT **2023**



# KEY FIGURES

## Overview

### CONSOLIDATED FINANCIAL STATEMENTS IN LINE WITH IFRS

(in mio. €)	2019	2020	2021	2022	2023	Change 2023 to 2022
Revenue	88.8	92.0	102.9	113.2	122.5	+ 9.3
Gross profit	62.1	70.4	75.8	90.6	101.1	+ 10.5
Personnel expenses	39.7	46.2	49.8	60.3	67.6	+ 7.3
EBIT	10.5	12.8	13.9	14.9	15.8	+ 0.9
Consolidated net loss / profit	10.6	10.1	9.3	10.1	11.4	+ 1.3
Cash flow from operating activities	12.5	30.8	19.1	4.5	11.9	+ 7.4
Free cash flow	8.0	1.8	10.4	-18.4	2.3	+ 20.7

### KEY FIGURES

	2019	2020	2021	2022	2023
Equity ratio (Equity/Total assets)	54 %	50 %	52 %	51 %	52 %
EBIT/Revenue	11.8 %	13.9 %	13.5 %	13.1 %	12.9 %
EBIT/Gross profit	16.9 %	18.2 %	18.4 %	16.4 %	15.6 %
Dividend (€/Share)	0.16	0.20	0.22	0.24	0,26*
Full-time equivalents as annual average	496	572	621	697	778
Gross profit per FTE (in € thousand)	125	123	122	130	130

\* Proposal to the Annual General Meeting

# LETTER TO THE SHAREHOLDERS

**Dear shareholders,**

In 2023, IVU once again had the most successful fiscal year in its history. Revenue rose by 8.2% to €122.5 million, and gross profit, which reflects the added value of IVU, even increased by 11.7% to €101.1 million. EBIT also climbed by 6.1% to €15.8 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 to increase the dividend of €0.26 at the Annual General Meeting.

Climate change and the transport revolution continue to be the issues of our day, and public transport plays an increasingly important role. The IVU.suite answers the question as to how transport companies can best surmount the current technical challenges.

The “Deutschland-Ticket” is the right step towards the transport revolution, as demonstrated by the more than 10 million people who used the new ticket last year. We responded quickly and were able to promptly offer transport companies and associations a solution for the “Deutschland-Ticket”. Once again, we have shown ourselves to be a reliable partner in the domestic market, which is also reflected by follow-up orders from our regular customers. For example, the IVU.suite now ensures more efficient staff deployment in bus transport at Stadtwerke Münster.

Moreover, we impressed key customers internationally: The contract with Swiss Federal Railways, the epitome of reliability in public transport, was followed by an order from Canada, where ONxpress is expanding and modernising the rail network in the Toronto metropolitan area. And in the Baltic states, which have a particular focus on digitisation, IVU.rail was put into operation at Lithuanian Railways. In Italy, Bergamo now also relies on IVU.suite, and the city of Basel will likewise use our software for planning and dispatching in future.

Over the past year, other existing and new customers have chosen IVU.cloud and now put their trust in IVU for hosting and operational management as well. Alongside the traditional business with product licences and the resulting maintenance income, our



services are also in high demand and offer a sound foundation for our new subsidiary IVU.consult.

Despite the tight situation on the labour market, we are still on the right track when it comes to recruiting talent. At the same time, our staff turnover rate is one of the lowest in this highly competitive industry. We believe that we can maintain this course of healthy personnel growth in the years ahead as well.

We are confident that you, too, will continue your association with IVU in 2024.

Thank you

**THE EXECUTIVE BOARD**

Berlin, March 2024

# 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. The following section informs you about our work in fiscal year 2023.

We continuously monitored and advised the Executive Board in line with legislation, the company statutes and the German Corporate Governance Code (GCGC) as currently amended. 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.

The Supervisory Board consists of a total of six members, four of whom represent the shareholders and two of whom were elected by IVU employees. The representatives are Prof. Dr. 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 to discuss the matters described above and to make decisions. Four scheduled meetings in person were held in 2023. The dates in question were 29 March, 24 May, 23 August and 21 November. In addition, a strategy meeting was held in person on 22 November to discuss the

business plan for the years ahead. The Supervisory Board committees also met regularly; five committee meetings were held altogether, five of which took place online.

The Supervisory Board was quorate at almost all meetings. No member of the Supervisory Board attended only half or fewer of the meetings of the Supervisory Board and the committees to which they belong.

Supervisory Board member	Meeting attendance incl. meetings of the committees	Meeting attendance in %
Prof. Dr. Herbert Sonntag (Chairman)	10/10	100
Ute Witt (Deputy Chairwoman)	8/8	100
Dr. Heiner Bente	6/7	86
Prof. Dr. Barbara Lenz	5/5	100
Benedikt Woelki	5/5	100
Axel Zimmermann	8/8	100

As recommended in the German Corporate Governance Code (GCGC), the Supervisory Board and its committees regularly discussed matters entirely or sometimes without the Executive Board in attendance. The agenda items discussed either concerned the Executive Board itself or required an internal discussion with the Supervisory Board for notices and resolutions. In conjunction with the scheduled meetings, preparatory and follow-up discussions and meetings also took place between the members of the Supervisory Board to share information and prepare decisions.

## Key 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 points at the meetings were:

- Assessing and approving planning for fiscal year 2023
- Approval of the 2022 consolidated financial statements
- Adoption of the 2022 separate financial statements
- Preparing the 2023 Annual General Meeting
- Liquidity planning
- Discussion of the 2023 quarterly financial statements
- M&A activities
- Personnel development
- Compliance management
- Risk management including cyber security
- Safety management
- Sustainability
- Major projects and their economic impact on the company
- Cooperation and partnerships
- Identification of the key audit matters with the auditor for the 2023 annual financial statements (separate and consolidated financial statements)
- ESG audit for 2023 and subsequent years

## 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 2023 fiscal year:

- General Committee (Chairman: Prof. Dr. Herbert Sonntag; Dr. Heiner Bente)
- Audit Committee (Chairwoman: Ute Witt; Prof. Dr. 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 in the organisation, the remuneration system and personnel matters of the Executive Board, including perspective planning. In addition to a number of informative discussions, the full committee met twice at scheduled meetings in the course of the fiscal year.

In the past fiscal year, the **Audit Committee** held several 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 audit of financial statements. It also addressed the requirements presented by legislative changes and their impact on IVU. The committee met three times in 2023, where one meeting was used to discuss the outcome of the audit of the 2022 annual and consolidated financial statements with the auditor. The other meetings covered legal changes and their impact on reporting and the audit of the non-financial report as well as the work of the Supervisory Board and setting out the key audit matters for the 2023 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. In particular, there was corporate governance update training for the Supervisory Board as a whole. 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 the fiscal year 2023, 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 *Aktiengesetz* (AktG – German Stock Corporation Act) and published it on IVU's website ([www.ivu.com](http://www.ivu.com)) together with the corporate governance declaration. With just a few exceptions, IVU complies with the Code's recommendations. Detailed reasons for the deviations are provided.

## 2023 annual and consolidated financial statements

The Audit Committee closely examined the annual financial statements of IVU Traffic Technologies AG and the consolidated financial statements as at 31 December 2023 as well as the combined management report together with the auditors of BDO AG Wirtschaftsprüfungsgesellschaft. At the accounts meeting on 21 March 2024, the Audit Committee recommended that the other members of the Supervisory Board approve the consolidated financial statements

The auditor, BDO AG Wirtschaftsprüfungsgesellschaft, was on hand to answer questions at the meeting. After detailed examination and discussion, the Supervisory Board approved both the consolidated financial statements and the separate financial statements of the AG.

For the Supervisory Board

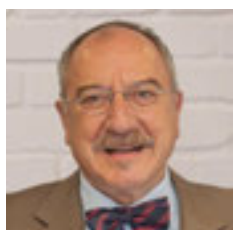


**Prof. Dr. Herbert Sonntag**

Chairman of the Supervisory Board  
Berlin, 21 March 2024

## THE MEMBERS OF THE SUPERVISORY BOARD

### Shareholder representatives

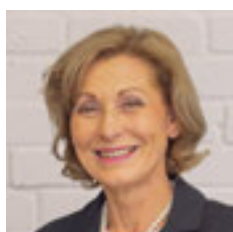


#### **Prof. Dr. Herbert Sonntag, Berlin**

(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" sub-committee of the DIHK, Berlin,
- Member of the Bundesbank advisory committee at the head office in Berlin and Brandenburg.



### **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. Dr. Barbara Lenz, Berlin**

#### **Activities and mandates:**

- Director of the Institute of Transport Research (ret.) at the German Aerospace Centre, Berlin,
- Professor for Traffic Geography (ret.) 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.
- Member of the scientific advisory committee of the Verband Deutscher Verkehrsunternehmen (VDV – Association of German Transport Companies),
- Member of the European Sounding Board on Innovation (European Commission).

## **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 yet another extremely positive year. What made 2023 special for you?**

MARTIN MÜLLER-ELSCHNER: I have particularly vivid memories of our User Forum, which we were finally able to hold in-person again after three years of online meetings. We welcomed more than 900 participants from 20 countries to Deutsche Telekom's Representative Office in Berlin, and the evening event at the 'An der Alten Försterei' stadium also went very well.

The list of international guests shows that IVU is still putting out its feelers for new geographical markets – with great success.

**The general economic situation presented several challenges. How did IVU respond to these?**

MARTIN MÜLLER-ELSCHNER: Naturally, inflation was a major issue for us, initially on the expenditure side because purchases have become more expensive. As a software company, however, the main impact for us is on salaries, which we have increased significantly.

LEON STRUIJK: On the income side, we are fortunate that most maintenance contracts include a price adjustment clause. Despite this, we must constantly work on our efficiency in order to achieve our profitability targets. Overall, however, we managed the balancing act successfully last year and can now reap the rewards of another excellent set of results.

**The skills shortage is seen as one of the biggest strategic challenges to the transport revolution. To what extent can IVU.suite provide support for this issue?**

MATTHIAS RUST: Our products relieve the day-to-day business workload for our customers. The use of automation frees up resources that can be used elsewhere. The IVU.suite not only makes operational scheduling more efficient and flexible overall but also boosts employee satisfaction. We have implemented functions that take into account the individual living situations of drivers, such as a sharing platform for shifts, which has been really well received. This leads to satisfied employees and fewer cancellations – a

worthwhile investment in the future of transport companies.

**Right now, there is no getting away from artificial intelligence (AI). What role does this topic play at IVU?**

MARTIN MÜLLER-ELSCHNER: Artificial intelligence is of great benefit to us internally, and we are trialling its deployment in as many areas as possible, such as for internal knowledge management – what we call the IVU.wiki – and in assisted software development. We want to become more efficient on the one hand while simultaneously gathering experience that we can then pass on to our customers.

MATTHIAS RUST: Naturally, this is a major topic for transport companies. With us, our customers are ideally positioned to make constructive use of AI and its currently most popular technology of machine learning. After all, this requires one thing above all else: big data – the largest possible quantity of data, which is precisely what our customers have been gathering for years with the IVU.suite. Our new cloud-based SaaS offering, IVU.data, formats this data centrally so that it can be easily utilised by AI-based algorithms.

**Any discussion of AI in relation to public transport must also include autonomous driving. How do you view its potential?**

LEON STRUIJK: Our customer 'Bahnen der Stadt Monheim' has been operating autonomous buses on specific routes since 2020, although with human supervision, as required by law. These types of vehicles could be used as required, without the need for a fixed timetable. As transport companies will be able to do this in future without the need for drivers and with fewer vehicles, they can offer their passengers an attractive and cost-effective alternative to their own cars – yet another important milestone on the journey to the transport revolution!





**With advancing digitalisation, cyberattacks have become a real threat for transport companies as well. How can IVU protect its customers against cyberattacks?**

MATTHIAS RUST: Cyber security is a vital task and a major challenge, especially for small and medium-sized companies that lack in-house IT specialists. We brought IVU.cloud to market precisely for these customers. Anyone who hosts with us can rest assured that their data and operational continuity are fully protected by our cloud and IT experts. Of course, we cannot entirely rule out successful cyberattacks. However, if the worst comes to the worst, we are ready to respond quickly and minimize the extent of the damage.

**The 2024 federal budget will introduce massive cuts in rail traffic and public transport. What impact do you envisage for IVU?**

LEON STRUIJK: Changing political conditions and cost-cutting constraints have accompanied our industry over the last few decades without negatively impacting our business. In fact, the opposite may even be the case. I am quite confident that precisely these intelligent software solutions for the efficient deployment of costly resources such as vehicles and drivers will become increasingly important.

**How do you feel IVU is positioned for the future?**

MARTIN MÜLLER-ELSCHNER: The newly flexible world of work is very helpful to us as a digital company, because it allows us to handle projects with increasing flexibility. As a result, we are now able to attract new employees from almost everywhere in Germany, Europe or worldwide.

We have grown considerably in recent years and will soon have more than 1,000 employees. At the same time, we want to preserve our unique collaborative culture. To this end, we do everything to ensure that each individual does not simply feel like "one FTE" but is recognised as an individual and can develop their personal strengths within the team and throughout IVU. We thrive on our really bright minds, they are our greatest asset – which is why we are convinced that we are ideally positioned for the future.

# IVU WORLDWIDE

**BERLIN** (HAUPTSITZ),  
**AACHEN, FRANKFURT AM MAIN,**  
**HANNOVER, LEIPZIG** (DE), **VIENNA** (AT),  
**OLTEN** (CH), **ROME** (IT), **MADRID** (ES),  
**BIRMINGHAM** (GB), **PARIS** (FR),  
**UTRECHT** (NL), **STOCKHOLM** (SE),  
**BUDAPEST** (HU), **ISTANBUL** (TR),  
**SANTIAGO** (CL), **TORONTO** (CA),  
**NEW YORK** (US), **HANOI** (VN)





## Selected references

### SWITZERLAND



Long-term partnership: Swiss Federal Railways choose IVU.rail for passenger traffic

### CANADA



Faster and more efficient: IVU supports the modernisation of rail transport in the Toronto metropolitan area

### LITHUANIA



Successful automation: Efficient vehicle scheduling and satisfied employees at LTG Link

### GERMANY



From the control centre to the passenger: The integrated rail control centre ensures a digital workflow at SWEG

### ITALY



Integrated planning and dispatch: ATB Bergamo controls vehicles and personnel with the IVU.suite



# HIGHLIGHTS 2023









# Projects

“For the digital reorganisation, it was important for us to use a standard system that has proven highly successful on the market. That’s why we went for IVU.rail.”

Andreas Haller,  
Overall Programme  
Director “Integrated Production  
Planning”, SBB



### **Market leader.**

IVU.rail is the world's leading IT system for rail transport.



## Swiss Federal Railways (SBB) chooses IVU.rail

With its “Integrated Production Planning” project, Swiss Federal Railways (SBB) is putting the planning, optimisation and dispatch of its key resources, vehicles and personnel, for all passenger services on a new footing. It will be using the standard product IVU.rail, as many other railway companies worldwide have chosen to do as well. IVU Traffic Technologies AG beat the competition in an international tendering process.

This will be a long-term collaboration. The planned framework contract with a runtime of eight years (with the option to extend by a further ten years) includes the licensing, implementation and maintenance of IVU.rail.





**IVU.rail** helps railway companies around the world to optimise the use of their vehicles and employees, provide information to millions of passengers and settle transport contracts.

### Success in Canada: ONxpress Toronto chooses IVU.rail

Public transport in the Toronto metropolitan area is set to become faster and more efficient. To achieve this goal, the newly founded railway company ONxpress opted for the standard software IVU.rail. Metrolinx and Infrastructure Ontario tasked ONxpress with planning, building, operating and maintaining the expanded regional rail network around Toronto. Electrification and modernisation will allow more frequent services and shorter journey times throughout the region. What was once a commuter-only service will become an all-day stream of fast and comfortable trains.

To help it schedule, dispatch and optimise its trains and drivers, ONxpress has opted to use IVU.rail and its specialised IVU.xpress implementation process for quick commissioning.

## IVU.cloud drives better performance at NETINERA

IVU ensures faster data processing and better performance at NETINERA, one of Germany's biggest transport companies. IVU handles the hosting and operational management of the software, from providing the infrastructure to the regular installation of security updates. The IVU.cloud is flexibly scalable and guarantees secure data storage and interruption-free processes at NETINERA. All scheduling and dispatching activities for rail transport have already been running successfully using IVU.rail since 2019.



## Reliable operational workflows at Lithuanian Railways

Following the introduction of IVU.rail, LTG Link, a subsidiary of Lithuanian Railways, has achieved two important goals – efficient vehicle scheduling and satisfied employees. Since then, shift schedules can be organised flexibly and transparently. Drivers can participate directly in duty scheduling using IVU.pad. The traffic control centre set up at national level ensures reliable operations.

## Integrated rail control centre at SWEG

Following the successful introduction of planning and dispatch functions, Südwestdeutsche Landesverkehrs-GmbH (SWEG) has also opted for the seamlessly integrated rail control centre from IVU.rail since the start of 2023. The software system is operated in Offenburg (Ortenau district) and Gammertingen (Sigmaringen district).

The company will also use IVU solutions for its bus services in future. The introduction of the IVU.plan operational planning software commenced in the autumn of 2023.







IVU.suite offers the right support for all fields of activity of a transport company. Integrated and from a single source.

## IVU.suite in use at BVB

From Basel Minster in the Old Town area to the Swiss border and beyond into Germany or France, Basler Verkehrs-Betriebe (BVB) carries around 106 million passengers quickly and conveniently to their destinations every year. To manage all transport personnel and vehicles across the company, BVB has opted for the IVU.suite, which it operates entirely from IVU.cloud.

As a result, the company will enjoy not only standardised timetable planning and vehicle working scheduling for its approximately 120 buses and 130 trams but also optimised duty scheduling and personnel dispatch for its 650 transport service staff. For example, automatic personnel dispatch (APD) always takes into account the qualifications, holidays and preferences of drivers, which allows IVU.pad to make duty schedules available quickly and easily at the tap of a finger.

## Stadtwerke Münster counters staff shortages with IVU.suite

The shortage of skilled workers is high on the agenda at Stadtwerke Münster. The transport company set itself the objective of guaranteeing a high quality of service for its 260 bus drivers, which also takes social aspects into account. This not only means that deployment and duty schedules are created in compliance with regulations and contracts, but that individual driver requests are taken into consideration as well.



## IVU supplies software and hardware for Stadtwerke Solingen

Digital fleet management, passenger information, ticketing and hosting from a single source by IVU: Stadtwerke Solingen (SWS) has opted for the integrated approach of IVU.suite and the on-board computer IVU.ticket.box. As a result, the transport company is fully equipped to control its fleet of more than 100 vehicles in the best possible way and was also able to standardise its ticketing and passenger information. The system is hosted in IVU.cloud.

## Better planning and communication at ATB in Italy

ATB Servizi Spa, an operator of bus, tram and funicular services in Bergamo, uses IVU.suite to schedule and dispatch vehicles and drivers.

The mobile app IVU.pad, which makes communication much easier and quicker, is an integral component because it allows drivers and dispatch managers to communicate directly with and among one another. A customised dashboard, which was jointly developed by ATB and IVU, enables better monitoring. This makes it easy to monitor planning and respond flexibly should the need arise.





# News



“For us, the User Group is a great platform for sharing ideas on an equal footing with other users along with the experts at IVU and actively contributing to the ongoing development of IVU.rail.”

**Per Schrøder, Executive Vice President  
Operations at DSB**



## Great response at IVU User Forum 2023

The 35th IVU User Forum was a complete success. For the first time in three years, the annual industry gathering was again held in-person – at a new venue and with a record number of participants. More than 900 visitors from all over the world accepted IVU’s invitation to the attractive Telekom Representative Office in the heart of Berlin. National and international customers, guests and partners of IVU used this unique opportunity to learn about the latest developments and share ideas, both on site and during the successful evening event at the ‘An der Alten Försterei’ stadium, which is home to the Bundesliga football club ‘1. FC Union Berlin’.

## IVU user groups: Active customer participation

Although every transport company is unique, they all perform essentially identical tasks and face similar challenges. As a standard product, IVU.suite covers the core tasks and as many specific requirements as possible. In the user groups, IVU experts engage directly with the users of IVU products in order to receive direct feedback and suggestions for the further development of our software.

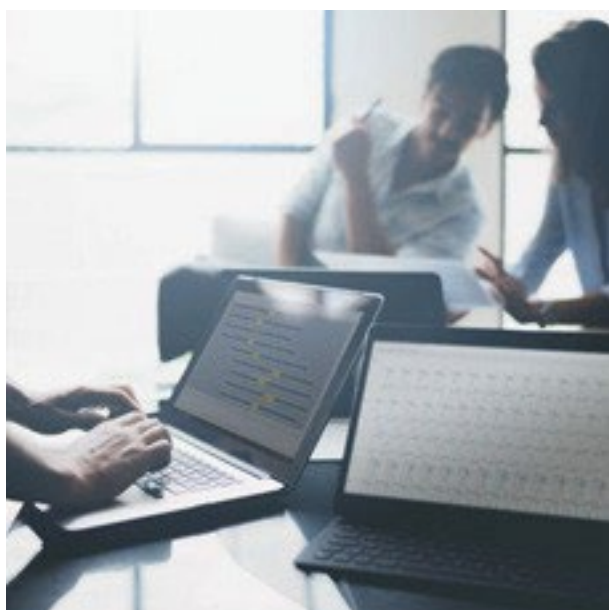




**Delivering new developments and offerings** for the efficient operation of tomorrow.

## IVU.data: Paving the way for AI-based software

Optimum charging scenarios, more efficient timetables and self-learning operational scheduling – the new data platform, IVU.data, collects all relevant operating data at one location and prepares it for evaluation in analytical tools. This enables IVU.suite products to learn automatically from the data collected. Evaluating the accumulated operational data will improve the operational processes of transport companies and further optimise the use of resources, partly with the help of artificial intelligence. Among other things, this makes it possible to predict the energy consumption and charging management of electric buses more accurately.



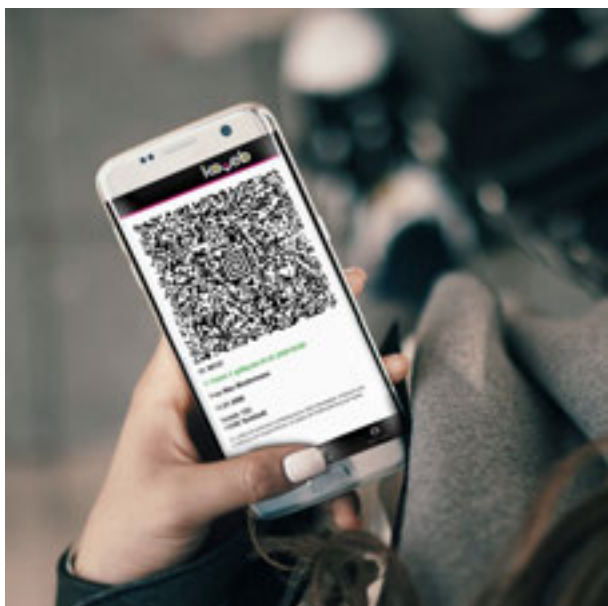
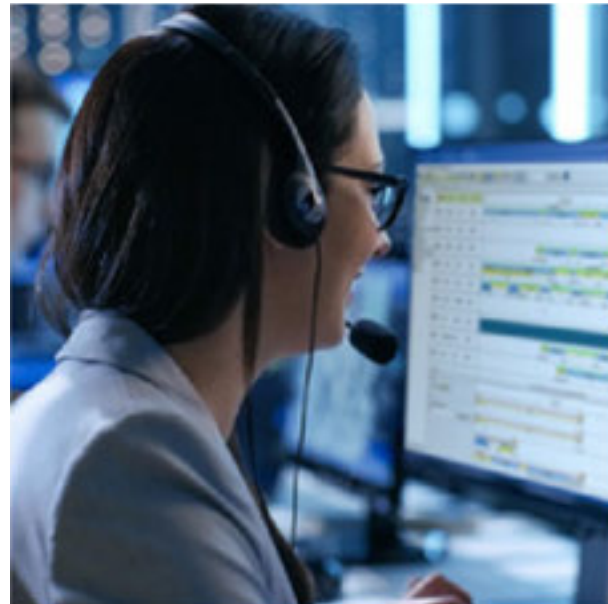
## Strategic consulting with IVU.consult

Helping transport companies introduce, use and optimise IVU software is the mission of IVU's newly founded consulting division. With this consulting service, IVU.consult makes its expertise in the special features and processes of IT systems in public transport available to customers. It can also provide support personnel if required. The service offering ranges from advice on tenders all the way to optimising ongoing operations.



## Respond flexibly with the personnel control centre

Whether planning ahead or making changes at short notice – dispatch managers always have an overview of employees' current deployments thanks to the new personnel control centre. This guarantees maximum flexibility in personnel deployment. At the same time, all rules such as rest periods and the route knowledge of drivers are taken into consideration. As part of the integrated rail control centre of IVU.rail, the deployment of personnel and vehicles will be better synchronised and dispatch work streamlined with the help of the personnel control centre.



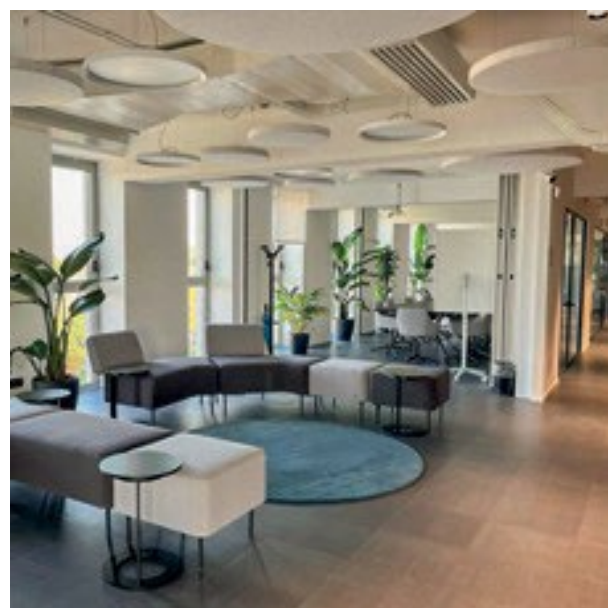
## IVU-integrated app for the "Deutschland-Ticket"

To enable the new "Deutschland-Ticket" to be sold, checked and managed in a single system right from the outset, IVU is offering its customers an integrated subscription solution that can be added seamlessly to existing tariff and sales systems. Passengers can also use an optional app that was jointly developed with Tallence AG. Koblenzer Verkehrsbetriebe, for example, has been using the passenger app since the end of 2023.

## IVU Italia consolidates market position

The IVU branch continues to grow and thrive: Coinciding with its 20th birthday, the company moved into new premises that provide the now over 40-strong workforce with a state-of-the-art and open office environment – not to mention fantastic views over the city as far as St Peter's Basilica.

In addition to its long-standing regular customers such as the Italian national railway Trenitalia or the underground railway in Milan, the branch has acquired many other customers throughout Italy in recent years, including Autolinee Toscane, which serves the whole of Tuscany with 2,600 buses.



# Personnel







**Finding and encouraging talented staff:** We regularly attend career fairs to get specialists fired up about IVU. Internally, the talented specialist staff programme boosts careers as subject specialists, retaining key knowledge in the company.

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 worldwide support where necessary. Their expertise plays a decisive role in the success of IVU. The company fosters a positive and respectful working environment so our employees feel at home at IVU.

The growth prospects at IVU remain positive. We continued our intensive recruitment programme in fiscal year 2023 and recruited suitable software and project engineers for IVU. Despite the deteriorating situation concerning the shortage of skilled workers, we succeeded in recruiting more than 150 new employees in the past year from more than 10,000 applications. IVU now has 966 employees across the Group (corresponding to an average personnel capacity of 778 FTEs).

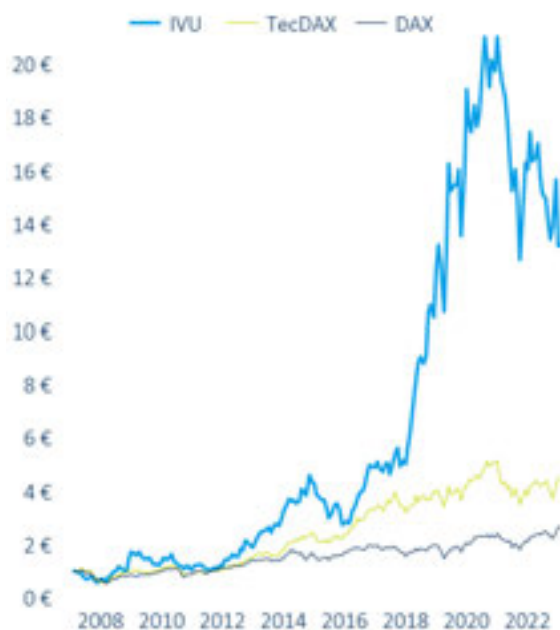
As well as recruitment, internal professional development is also hugely important to IVU. In special management trainee programmes, we prepare promising candidates to take on management and specialist responsibility.

In recent years, IVU has also learnt to appreciate employee participation in the form of shares, and this is well received internally. Almost all employees are now IVU shareholders as well.

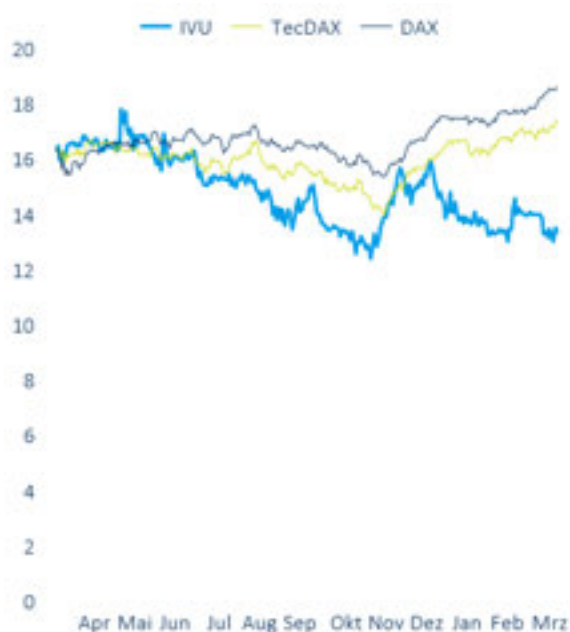
# IVU share, key figures

## IVU SHARE IN COMPARISON

JAN 2008 – MAR 2024



MAR 2021 – MAR 2024



## SHAREHOLDER STRUCTURE AS AT 31 DECEMBER 2023

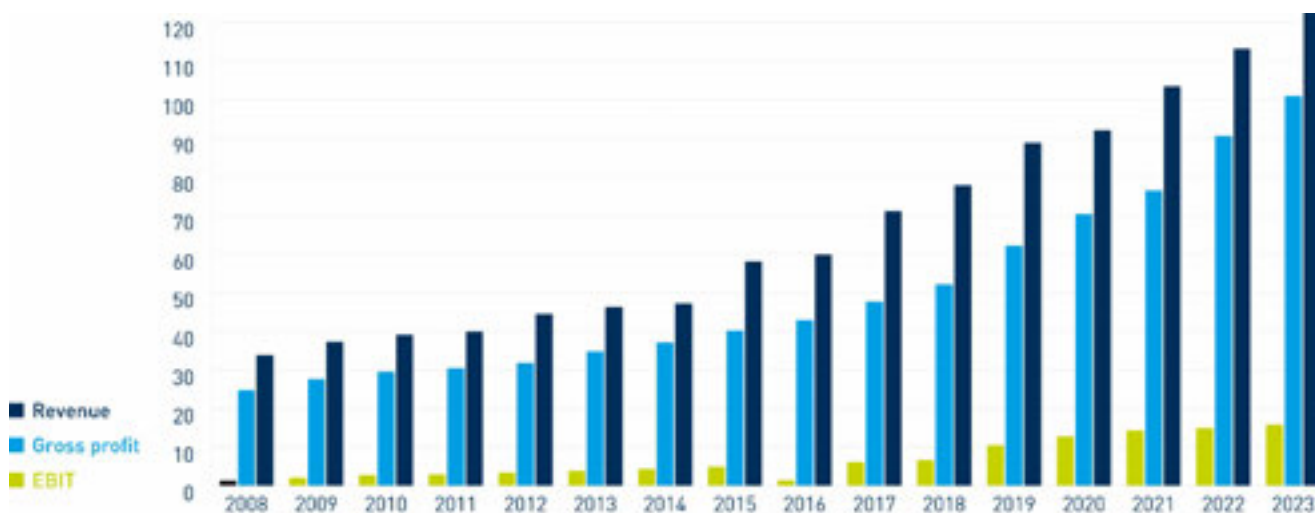


## SHARES HELD BY BOARDMEMBERS AS AT 31 DECEMBER 2023

Executive Board	Shares
Martin Müller-Elschner	292,113
Matthias Rust	58,324
Leon Struijk	63,000
<b>Executive Board Total</b>	<b>413,437</b>
Supervisory Board	
Prof. Dr. Herbert Sonntag	856,000
Prof. Dr. Barbara Lenz	1,500
Benedikt Woelki	391
Axel Zimmermann	1,242
<b>Supervisory Board Total</b>	<b>859,133</b>
<b>BOARD MEMBERS TOTAL</b>	<b>1,272,570</b>

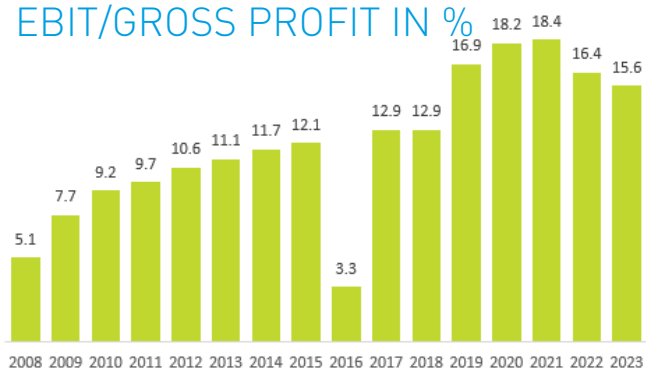
## KEY FIGURES 2008-2023

IN € MILLION



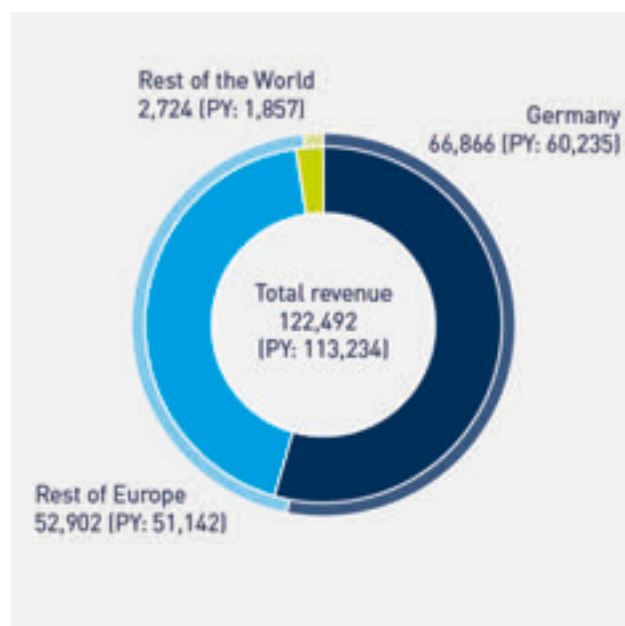
## EFFICIENCY 2008-2023

EBIT/GROSS PROFIT IN %



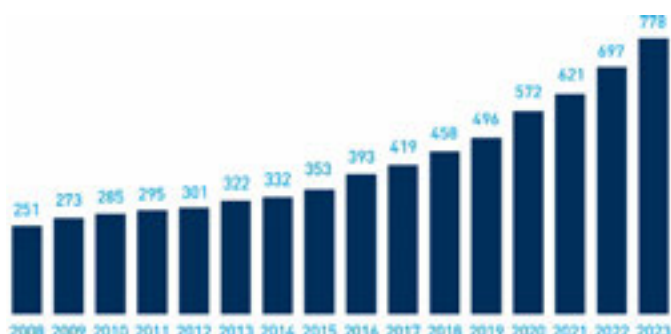
## REVENUE 2023

IN € THOUSAND



## FULL TIME EQUIVALENTS 2008-2022

AS ANNUAL AVERAGE





# COMBINED MANAGEMENT REPORT







# Combined management report for the financial year 2023

## A. NOTES ON THE REPORTING

IVU Traffic Technologies AG is an integral part of the IVU Group and a key element in its commercial activities, organisation and business operations, including the market and product strategy. Statements on the IVU Group therefore also apply extensively to IVU Traffic Technologies AG and vice versa. This report comprises the group management report of the IVU Group and the management report of IVU Traffic Technologies AG (combined management report). The figures cited in this report refer to the IVU Group. Information on the single-entity financial statements under commercial law is referred to separately. The IVU Group is referred to as IVU and the individual entity as IVU AG in this report.

## B. BASIC INFORMATION ABOUT THE COMPANY AND THE GROUP

### 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), Istanbul (Turkey), New York (US), Toronto (Canada), Santiago de Chile (Chile) and Hanoi (Vietnam). The core markets of IVU are Germany, Italy, Switzerland and Netherlands 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 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 since it was founded in 1976. 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 2023, IVU participated in various research projects, some of which began before the beginning of the year or will be continued in 2024.

The MaaS L.A.B.S. and U-hoch-3 research projects started in previous years have now been completed, for example. Work on the LOGIN, OPENER next, SA-FIRA and ÖV-Leitmotiv-KI research projects continued in the past fiscal 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 intermodal travel planning to the dynamic improvement of the switching logic for traffic lights to barrier-free travel chains throughout Germany.

Also launched in the past fiscal year was the ALBUS project, which aims to integrate autonomous electric buses efficiently into the public transport system.

In the past year, IVU invested €7.4 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 2023 testifies to IVU's good reputation as an employer and the positive working environment at the company. This is also confirmed by employees on the Kununu assessment platform, who submit ratings that are very good on average. As at 31 December 2023, IVU had a total workforce of 966 employees, including part-time employees and students (2022: 888). The average personnel capacity increased by 12% to 778 FTE (2022: 697) and personnel expenses climbed 12% to €67.6 million (2022: €60.3 million). In general, IVU operates in a high-salary environment.

	2023	2022	Change
Number of employees as at 31 December	966	888	+9%
Average full-time equivalents (FTE)	778	697	+12%

## Recruitment measures

After opening in 2022, the location in Leipzig was further expanded. As at 31 December 2023, 22 colleagues from Development and Project were working at the site in Saxony. At the same time, IVU continued to recruit based on remote working models and in this way employed over 50 staff members from all over Europe in 2023.

To attract specialists and graduates, IVU regularly attends careers fairs. In 2023, in-person events were largely possible once again. IVU took this opportunity to meet suitable specialists at a total of fourteen trade fairs in Berlin, Aachen, Karlsruhe, Leipzig and, for the first time, Winterthur (CH).

September 2023 saw three new colleagues start their dual vocational training studies in mathematical-technical software development in cooperation with FH Aachen - University of Applied Sciences for the first time.

Cooperation with various universities also plays a key role in HR marketing. In this context, IVU's software engineers lend their expertise in projects or prepare seminars and lectures. As a result, students gain insight into the technical challenges in public transport and the day-to-day tasks at IVU. To this end, IVU also makes use of the good contacts with its research partners.

## 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. IVU conducts structured induction programmes at our locations in Berlin and Aachen for this purpose. Modular training courses allow the new employees at the German and international branches to 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 seven induction programmes took place in 2023, four in Berlin and three in Aachen. We additionally organised an "International Onboarding" programme for our English-speaking colleagues

## 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 in 2023. 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.

The existing career levels, which map a vertical career trajectory especially into management, have now been supplemented by job descriptions, which illustrate the various specialist roles and the large number of development opportunities at IVU.

## C. COMBINED NON-FINANCIAL STATEMENT<sup>1</sup>

### 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

<sup>1</sup> The summarised non-financial statement was not audited by the auditor.



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 2023.

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 European Sustainability Reporting Standards (ESRS), particularly with regard to the materiality analysis, the management approach and the presentation of individual key figures. The definition of the terms short, medium and long term when they are used is adopted from ESRS 1.

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

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.

The implementation of sustainability measures is accompanied by opportunities and risks. These are assessed every quarter within the framework of the risk

management system. The Executive Board and the Supervisory Board are constantly informed about the results. Senior management and the other management levels are involved on an ad hoc basis.

In addition, the responsible officers in the area of sustainability took part in training programmes as necessary so that they consistently understand the current legal situation and can identify opportunities and risks in this area.

## Material stakeholders

In accordance with the ESRS 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 investors, lenders, applicants, customers, authorities, the general public and important multipliers such as analysts or various media. IVU attaches great importance to ongoing conversations with all groups.

## Material non-financial topics

The material non-financial topics were determined in 2022. In doing so, the company took into account the reporting obligation at European level with regard to double materiality.

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 opportunities and risks of sustainability issues on the business activities of IVU are to be expected. Relevant aspects were added.

The result is a more intense focus on the topics that have the strongest impact in the economy, environment and society and are of the highest business relevance for IVU.

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

IVU is planning to carry out a comprehensive materiality analysis in accordance with the requirements of the ESRS for the 2024 fiscal year.

## 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 CO<sub>2</sub> reductions. At the same time, IVU is aiming to achieve a neutral carbon footprint in Scope 1 and 2 emissions by 2025.

**Efficient 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 and transparent 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, co-operative 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

IVU pursues sustainable growth. Current challenges have to be tackled to achieve this. Conserving our environment is one of the biggest challenges we face today. It is the company's firm conviction that IVU can make an important contribution here by playing an active role in protecting the environment and using resources efficiently.

### 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. Increasing energy efficiency and reducing emissions
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 Dr. 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 greenhouse gases– 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

### Increase energy efficiency and reduce emissions

It is not only IVU products that are intended to help protect the climate. IVU is also investing efforts as a company in continually reducing emissions that harm the climate. It can mainly exert an influence here on Scope 1 and 2 emissions. It has therefore set itself the goal of achieving climate neutrality with regard to these emissions by 2025.

Remaining emissions will be offset by Gold Standard-certified projects from 2025 onwards. As a result of its voluntary commitment to offset emissions, IVU is setting incentives to continuously reduce its carbon footprint.

Only significant locations are taken into account when collecting the key figures for this section. Locations are significant if they have at least 10 employees or are a branch with an office building. IVU measured its carbon footprint and initiated measures based on the results for the first time in the 2021 reporting year. The carbon footprint for 2022 and 2023 was additionally recorded in the current reporting period.

Overall, the Group-wide carbon footprint for 2023 was 2,811 metric tons of CO<sub>2</sub>-equivalent (t CO<sub>2</sub>e). Of this, 134 metric tonnes from air travel were offset, while 142 metric tonnes were offset by the use of green electricity. In relative terms, IVU emitted about 3.6 tons of CO<sub>2</sub>e per employee. The largest part of the emissions can be attributed to external data centres (823 t CO<sub>2</sub>e), commuting (615 t CO<sub>2</sub>e), energy consumption for heating (370 t CO<sub>2</sub>e) and electricity consumption (202 t CO<sub>2</sub>e). 17% of the emissions can be allocated to Scope 1, 7.5% to Scope 2 and 75.5% to Scope 3.

The increase in the carbon footprint in 2022 and 2023 in comparison with 2021 can essentially be explained by an adjustment made to the calculation. Unlike the previous measurement, external data centres have been included in the calculation since 2022. IVU AG uses four data centres in order to run both its own systems and its IT solutions at customers. The emissions for these data centres were calculated, with 823 t CO<sub>2</sub>e counted towards Scope 3 emissions. There is consequently a large potential for savings here. The goal is therefore to gradually increase the proportion of data centres that operate using green electricity.

Increasing energy efficiency plays a key role in reducing emissions that are harmful to the climate. It has proved possible to record significant improvements in energy consumption despite the company's strong



growth. Energy consumption across the Group in 2023 was 1,869 MWh. For better management, energy audits are regularly carried out in accordance with DIN EN 16247-1 with the aim of identifying the main energy drivers. The last audit was carried out in November 2023 for the Berlin and Aachen sites.

Special attention was paid to electricity consumption. In total, IVU consumed 430 MWh of electricity in 2023. 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 luminous intensity 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.

The focus is currently on the choice of energy supplier. In 2023, the share of green electricity was around 71% (2021: 35%; 2022: 69%) and it was thus possible to more than double it from 2021 to 2023. The resulting emissions were reduced from 126 t CO<sub>2e</sub> to 60 t CO<sub>2e</sub> in this period. The goal is to gradually increase the share of green electricity still further. In addition, IVU and the lessor are together negotiating with the heritage protection authorities to install a photovoltaic system on the roof of the branch office in Berlin. Implementing this is a medium-term goal.

Potential for savings was also used in terms of heating, although the area to be heated has increased as a result of the company's strong growth. A greater awareness of heating meant we were able to reduce energy consumption from 1,625 MWh in 2021 to 1,439 MWh in 2023. The aim in the short term is to use electronic thermostats and in the medium term to switch to energy-saving heating systems in order to achieve further increases in efficiency.

Key figures	2021	2022	2023
IVU carbon footprint (t CO <sub>2e</sub> )	1,996	2,765	2,811
Carbon footprint per employee (t CO <sub>2e</sub> /FTE)	3.2	4.0	3.6
Scope 1 (t CO <sub>2e</sub> )	567	478	478
Scope 2 (t CO <sub>2e</sub> )*	126	224	211
Scope 3 (t CO <sub>2e</sub> )**	1,303	2,063	2,122
Emission intensity (carbon footprint / net revenue) (t CO <sub>2e</sub> /T€)	0.0194	0.0244	0.023
MWh from oil (MWh)	1,236	764	785
MWh from gas (MWh)	389	630	654
MWh from electrical energy (MWh)	420	470	430
% green electricity	34.7%	69.2%	71.4%
% grey electricity (including nuclear power and electricity from gas)	65.3%	30.8%	28.6%
Offsets (flights, green electricity) (t CO <sub>2e</sub> )	42	270	276

\* from 2022: eco and green electricity with emission factor for general electricity mix counted

\*\* from 2022: external data centres are included

### Increasing the low-emission mobility of employees

Around 29% of our carbon footprint was caused by our employees' business trips and commuting in 2023. IVU therefore sees this as a major lever for savings. The data for calculating commuting as part of the carbon footprint is based on estimates for the 2023 reporting year. A survey will help to make the estimate more precise in 2024.

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. Savings on commuting can thus be made, while existing spatial resources can be used efficiently and sustainably. Employees were therefore extensively equipped in 2023 to be able to work at home.

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 atmosfair supports various climate protection projects in the fields of renewable energies and energy efficiency.

In 2023, IVU AG employees travelled a total of 1.1 million air kilometres. 12.9% of these were short-haul<sup>2</sup>, 81.5% were medium-haul<sup>3</sup> and 5.6% were long-haul<sup>4</sup> flights. According to the VDR standard<sup>5</sup> for calculating CO<sub>2</sub>, these trips resulted in a carbon footprint of 134 metric tons of CO<sub>2</sub>. 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. 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. It is additionally planned to install charging stations for e-vehicles in the car park at the Berlin branch. This will see infrastructure built that encourages environmentally friendly travel to the branch.

Company cars are offered only to the first two levels of management. The company cars has been 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 promoting recycling
2. Working with sustainable suppliers.

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<sup>2</sup> Under 500 km

<sup>3</sup> 500 km to 1,600 km

<sup>4</sup> Over 1,600 km

## Avoiding waste and promoting recycling

IVU always pays attention to avoiding waste.

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.

## 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, on which our customers run the IT solutions provided by IVU. 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.

As an IT company, IVU furthermore requires IT equipment to operate its business. It relies here primarily on the durable hardware supplied by Dell.

## EU taxonomy

### Basic information

The European Parliament and European Council created the so called EU Taxonomy, a Europe-wide classification system for environmentally sustainable

<sup>5</sup> VDR Standard from the Association of German Travel Management e. V.

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 taxonomic 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 2023 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.

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. One of the things it has done, for example, is to address a specific proposal for a solution to the responsible expert panel of the EU Commission.

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 and FAQ documents that been published on how to deal with the EU Taxonomy, IVU has decided after careful consideration to apply an economic activity that is suitable under a broader interpretation.

Further legal acts and explanations from the EU on the use of the published requirements are expected. The importance of any supplements of this kind for IVU’s reporting under the EU taxonomy will be carefully reviewed.

## 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 8.2 “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 the table in the section “Active climate protection” for the selected IVU products).

A substantial improvement compared to alternatives cannot be assessed in quantitative terms because no comparable alternatives to IVU’s IT solutions can be identified. A measurement of emissions over the life cycle was therefore dispensed with. Instead, IVU conducted a systematic investigation, the result of which shows that the use of its IT solutions produce a substantial reduction in harmful emissions when



compared with the scenario where no software or similar solution is used. 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 physical risks to economic activity caused by climate change. Climate scenarios were used to examine potential environmental impacts at IVU’s four largest sites – firstly, within the next 10 years, and secondly, in a period from 10 to 30 years. The worst case scenario was taken as the key scenario at each site.

Heat waves, a widening range of temperatures and increasingly severe storms in Central Europe were identified as potential sources of risk. These can in particular pose a health risk to employees and a risk to buildings and infrastructure. The risk at IVU’s locations was classed as low overall, however, and immediate measures were not considered to be necessary. Another climate risk analysis will be conducted in 2025.

Further requirements relating to the environmental goal “Transition to a circular economy” 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. IVU is involving waste disposal service providers in this goal through appropriate contracts, and these providers will guarantee that waste electrical and electronic equipment is properly disposed of.

### **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. IVU has established processes that have the goal of ensuring compliance with these frameworks.

### **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 8.2 “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 €122.5 million in 2023 (2022: €113.5 million) and comprises license sales (30%), supplementary service and hardware sales (29%), and recurring revenue from the maintenance and hosting business (41%).

### **Taxonomy-eligible and taxonomy-aligned capital expenditure**

IVU’s capital expenditure totalled €4.8 million in the 2023 (2022: €27.3 million) financial year. It comprises

investment in property, plant and equipment (26.6%), intangible assets (10.2%) and leases (63.2%).

### Taxonomy-eligible and taxonomy-aligned operating expenses

IVU's operating expenses as defined by the EU taxonomy totalled approximately €11.2 million in the 2023

(2022: €9.4 million) financial year. They comprise personnel costs and material costs for research and development (65.6%) as well as current costs for operating and office equipment (33.5%) and short-term leasing (0.9%).

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
<b>A. TAXONOMY-ELIGIBLE ACTIVITIES</b>															
A.1. Taxonomy-aligned revenue	8.2	122.5	100	100	-	YES	YES	YES	YES	YES	YES	YES	100	-	E
A.2. Taxonomy-eligible but not taxonomy-aligned revenue	8.2	0	0	-	-	-	-	-	-	-	-	-	-	-	-
Total (A.1 + A.2)		122.5	100	-	-	-	-	-	-	-	-	-	-	-	-
<b>B. NON-TAXONOMY-ELIGIBLE ACTIVITIES</b>															
Revenue from non-taxonomy-eligible activities		0	0	-	-	-	-	-	-	-	-	-	-	-	-
<b>TOTAL (A+B)</b>		<b>122.5</b>	<b>100</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>

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
<b>A. TAXONOMY-ELIGIBLE ACTIVITIES</b>															
A.1. Taxonomy-aligned OpEx	8.2	11.2	100	100	-	YES	YES	YES	YES	YES	YES	YES	100	-	E
A.2. Taxonomy-eligible but not taxonomy-aligned OpEx	8.2	0	0	-	-	-	-	-	-	-	-	-	-	-	-
Total (A.1 + A.2)		11.2	100	-	-	-	-	-	-	-	-	-	-	-	-
<b>B. NON-TAXONOMY-ELIGIBLE ACTIVITIES</b>															
OpEx from non-taxonomy-eligible activities		0	0	-	-	-	-	-	-	-	-	-	-	-	-
<b>TOTAL (A+B)</b>		<b>11.2</b>	<b>100</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>

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
<b>A. TAXONOMY-ELIGIBLE ACTIVITIES</b>															
A.1. Taxonomy-aligned CapEx	8.2	4.8	100	100	-	YES	YES	YES	YES	YES	YES	YES	100	-	E
A.2. Taxonomy-eligible but not taxonomy-aligned CapEx	8.2	0	0	-	-	-	-	-	-	-	-	-	-	-	-
Total (A.1 + A.2)		4.8	100	-	-	-	-	-	-	-	-	-	-	-	-
<b>B. NON-TAXONOMY-ELIGIBLE ACTIVITIES</b>															
CapEx from non-taxonomy-eligible activities		0	0	-	-	-	-	-	-	-	-	-	-	-	-
<b>TOTAL (A+B)</b>		<b>4.8</b>	<b>100</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>



## Social

Further information on IVU's employees can be found in the section "Personnel" in Part B.

Complex systems require brilliant minds. IVU employees develop ideas, write software, implement projects and advise and support customers. 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 a good number of new employees in 2023.

	2023	2022	Change
Number of employees as at 31 December	966	888	+9%
Average full-time equivalents (FTE)	778	697	+12%

The majority of IVU's almost 1,000-strong workforce are employed in permanent positions on open-ended employment contracts. Freelancers are engaged only in exceptional cases to provide short-term cover during periods of unusually high workloads or bottlenecks in development. The workforce can be broken down as follows as at 31 December 2023.

Managers (total)	100
Executive Board	3
Senior management	8
Department heads	28
Team leaders	61
Employees	757
Students (on dual training programmes)	105
Trainees	4

### Respectful and transparent corporate culture

To promote sustainable developments in the Group, the Executive Board adopted the Code of Conduct for IVU in 2021. IVU introduces all employees to the Code of Conduct and our guidelines in the course of its onboarding process. These principles of conduct support the responsible behaviour of every employee and serve as a binding guideline for everyday working life throughout the Group. They are supplemented by

internal guidelines and contractual employment agreements.

To be able to recruit new employees despite the persistently tight situation on the labour market and at the same time to counter the risk of a brain drain and thus the loss of employees and knowledge, IVU has set itself the following targets:

1. Promoting employee satisfaction
2. Offering employees opportunities for continued development
3. Creating safe working conditions
4. Paying fair remuneration and ensuring that employees share in the company's success
5. Ensuring a work-life balance
6. Maintaining equal opportunities and increasing the proportion of women in particular

#### Promoting employee satisfaction

IVU views a transparent, appreciative and trusting corporate culture as highly important. This is also reflected in the design of the variable remuneration of the Executive Board, which is based on the general level of employee satisfaction.

Regular participation in the "Great Place to Work" employee survey gives IVU the opportunity to systematically measure employee satisfaction at the Group's DACH locations (Germany, Austria, Switzerland) and identify potentials for action. A survey was performed in 2023 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 of all participating companies in Germany from the information and communication sector with a workforce of over 500 employees. While 90% of the employees stated that they felt a sense of well-being at the workplace and valued the feeling of camaraderie, friendliness and familiarity, as many as 97% praised the flexible working hours. Sharing in the company's success is one area where employees see potential for improvement.

The high level of employee satisfaction is also reflected in the low staff turnover rate. At 7.2%, the turnover rate (departures / headcount at the start of the year + new hires) was lower than in the previous year (2022: 8.2%).

In the course of their induction, new employees are also specifically asked by the Human Resources department after three months how satisfied they are at

the company. Individual solutions are found in response to any dissatisfaction. Furthermore, the works councils in Germany stand up for the employee's interests. The close cooperation with the works councils is also marked by a spirit of trust. Coordination meetings on a variety of issues are held between the Human Resources department, the management and the works councils every two weeks. The consultations in 2023 focused in particular on the topics of working models, working hours, salary determination, health management, the introduction of a role model and personnel development.

### 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 modular induction programs for all new employees at the Berlin and Aachen locations
- Annual project and developer conferences
- Trainee programmes for young managers, talented specialist staff and future project managers
- "New Leadership Programme" for experienced managers
- Short training sessions on IVU-specific topics every two weeks.

In the 2023 fiscal year, each IVU AG employee spent an average of 39.0 hours in training courses. IVU AG invested an average of €731 per employee in further training.<sup>6</sup> The internal training that is offered was

enhanced by setting up new training rooms and expanding internal expertise.

### 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 mental breaks (via video): health instructors take employees through a series of movement, stretching and relaxation exercises and give them tips on personal fitness in everyday office life
- Annual health day: lectures and workshops on the subjects of "Regeneration" and "Getting a good night's sleep"
- 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
- Subsidised membership of Urban Sports Club

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 rare. There were only five cases in the 2023 reporting year, none of which resulted in lost working hours.

<sup>6</sup> The average number of employees at IVU AG, excluding students, was used to calculate the average training costs

With an average sick leave of 8.8 working days per employee, IVU AG is below the German average of 15 working days (according to the Statistisches Bundesamt – German Federal Statistical Office), and is thus at the same level as the previous year.

### 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 benchmark tests. In addition, employees participate in the company's success through the issue of IVU shares and in the form of an additional one-off payment that was granted in the 2023 fiscal year. Moreover, all permanent employees received the full amount of the inflation compensation bonus, which is exempt from tax and social security contributions. Students were taken into account on a pro rata basis. 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).

Salary differences between women and men at IVU AG are regularly monitored. No significant salary differences were identified at IVU AG at the various career levels in the reporting year.

### Ensuring a 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 25% (38% women, 19% men) for the reporting year 2023. (2022: part time ratio: 21% woman: 35%, men: 15%). 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. Up to three days' leave can be granted for special events. 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. The average age of employees (excluding students) in the 2023 reporting year was 39. The following age structure can be seen:

Age	Share of employee [%]
<30 years	20 %
30-50 years	66 %
>50 years	14 %

IVU is convinced that this diversity contributes to a productive and innovation-friendly working environment.

IVU is an international company with employees from 44 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. In order to nevertheless promote a balanced distribution of genders, the variable remuneration of the Executive Board is based on the proportion of women.

Compared with the proportion of female graduates of 22.1 % (2022) in the field of computer science relevant to IVU, IVU nevertheless employs an above-average number of women throughout the company: in 2023, the proportion of women across all departments rose



to 32 % (2022: 31%) and in terms of new hires to 39 % (2022: 34%).

The gender quota that is binding in law applies to the Supervisory Board of IVU, according to which at least 30% of the members must be women and at least 30% must be men. 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 33%.

The proportion of female managers in the first two levels of management below the Executive Board is now 25% as at 31 December 2023 (2022: 21.2%), thus exceeding the target of at least 15%. In particular, the proportion of women in management increased to 12.5% in the reporting year and will be expanded further over the next year. There are currently no women on the Executive Board.

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 2023.

## **Sustainable customer relationships**

IVU aims to be a reliable partner for its customers for high-quality IT-solutions. IVU's solutions optimise public transport and thus contribute to a sustainable change in transport. The following objectives have 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 2023 survey, 84% 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 2023, IVU participated in various research projects. These are described in more detail in the management report under the section "Research and development".

Expenses for research and development amounted to €7.4 million in 2023.

### **Enhancing the quality of products and processes**

The IVU.suite products must 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.

IVU established a quality management system in accordance with DIN EN ISO 9001:2015 in 2012 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 to improve it.

### **Safeguarding information**

According to the information of the Bundesamt für Sicherheit in der Informationstechnik (BSI – Federal Office for Information Security), the situation remained serious to critical in 2023 and threats in cyberspace have never been so high. IVU's information security therefore remains an important and critical issue, and great attention is paid to addressing it.

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 at IVU and its subsidiaries. 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 and communication channels. The issue of information security is extremely important to IVU. It is firmly embedded in the corporate culture, with management leading by example here. The participation rates for our annual information security training course regularly reflect this. The key figure was 99.4% in 2023.

In 2023, 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 27001:2017.

In addition, IVU engages external experts to help test its systems for vulnerabilities using penetration tests. No serious cyber security breaches were identified in 2023. IVU was thus able to end the year without the company or its customers suffering damage or consequential damage from cyber security incidents.

IVU can thus confirm that there were no identified cases of data theft or data loss in connection with customer data that resulted from cyber security incidents.

### **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. 99.7% of the workforce took part in the data protection training in 2023.

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 2023.

## **Governance**

### **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. Further statements on the corporate culture at IVU and how we promote it can be found in the section "Social".

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 is committed to maintaining irreproachable business practices. It works together with its suppliers in a spirit of trust and for each other's mutual benefit. This plays a part in ensuring that the quality of our products and services, the delivery timetable and the agreed terms and conditions are complied with. Where conflicts arise, IVU implements a solution-oriented approach to problem-solving together with its suppliers, which ensures the stability of the supply chain.

IVU in principle works with low levels of inventory. It prefers direct deliveries, based on the project scheduling, from suppliers to the end customer in order to keep transport routes as short as possible. IVU maintains a continual dialogue in particular with the key suppliers when it comes to production and capacity planning. Joint solutions are found in the short term when supply problems arise.

Social and environmental criteria play an important role when selecting suppliers. When selecting new partners, IVU looks at supplier information to find out how these criteria are fulfilled. The majority of suppliers are companies from Germany and Europe, which are already required by law to comply with the necessary social and environmental criteria. Thanks to the geographical proximity to the suppliers, control measures such as supplier audits and on-site production inspections can easily be carried out. Non-European suppliers are very rarely engaged by IVU. If it does use these suppliers, IVU ensures in particular that the required social and environmental criteria are complied with.

It is important for IVU that it settles its invoices at the latest by the due date. This is done in regular payment runs that are implemented twice a week. All invoices undergo a complete review/approval and posting process beforehand. The average time taken to pay an invoice measured by the invoice date is 21.2 days. How long the gap is between the invoice date and the date of payment to external service providers and suppliers

was evaluated here based on the invoicing workflow system for the period in which invoices were received at IVU from 1 January 2023 to 31 October 2023.

IVU applies the following standard terms and conditions of payment for its main suppliers.

Standard terms and conditions of payment	Paid by due date
14 days	50% (70 of 141)
30 days	95% (449 of 475)
90 days	99% (1,144 of 1,151)
Direct debit	100% (responsibility of the lessor)

The main reason why payments may be delayed is if there is still a need to clarify an invoice. IVU is not aware of any legal proceedings that have been instituted against the company for default of payment.

The Code of Conduct reflects IVU's corporate values both internally and externally. It is intended to serve as a guideline for IVU in the conduct of its day-to-day business and to help it make ethical and legally compliant decisions at all times. The Code of Conduct provides our customers, partners, shareholders and the public with a reliable and transparent foundation for their 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 locations 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.

IVU published a guideline on the issue of anti-corruption in 2021 that applies to all employees and that is in conformity with the relevant legislation in force. The



guideline was notified to all employees through our regular compliance newsletter. All information on this and other compliance issues is available to all IVU employees at all times on the intranet and the public file server. Moreover, the awareness of IVU managers around the issues of corruption and bribery has been raised so that they are available to answer questions from their staff. IVU uses the anti-corruption guideline to support its employees in developing the necessary awareness of circumstances that may involve corruption or bribery and to help avoid these situations.

Furthermore, IVU encourages its employees to take personal responsibility for their own conduct and also to report circumstances that are in breach of the guideline. A company-wide training concept for compliance issues such as corruption and bribery is currently being developed. The training concept will here consider in particular the areas within IVU that are exposed to a higher risk of corruption and bribery, such as sales, purchasing and project work.

There were no incidents relating to corruption and bribery in the reporting year. As a result, no convictions or fines were imposed and no measures were instituted in connection with a breach of anti-corruption and bribery legislation. Should an incident of this kind nevertheless occur, it will be handled in accordance with the whistleblowing guideline. All incidents are reported to the Executive Board and the Supervisory when they are relevant and at least once a 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.

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](http://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.

The guideline on competition and antitrust law was finalised and made available to all IVU employees in 2023.

Moreover, no legal proceedings were instituted and no investigations were announced due to anti-competitive behaviour or violations of antitrust and monopoly law in 2023.

### **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 mostly based in Europe.

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

### **Responsible corporate governance**

Responsible corporate governance and sustainable value creation are of great importance to IVU. This is why 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 Aktiengesetz (AktG – German Stock Corporation Act) in 2023. As a public limited company listed on the stock exchange, IVU is subject to strict legal regulations regarding the composition of the Executive Board and the Supervisory Board and their reporting on remuneration. Further information on the Supervisory Board and the Executive Board is provided in the corporate governance declaration and in the section “Report of the Supervisory Board”.

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. It is subject to more stringent legal requirements as a result.

The company uses a compliance management system to make it easier for all IVU employees to act correctly at all times when working with customers and maintain IVU's special culture in the process. This system 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 incorporates various measures and processes that can be used to track and ensure compliance with national and international regulations and laws by all IVU employees. These include the binding Code of Conduct, internal guidelines and a publicly accessible whistleblower system that enables both employees and external parties to report any compliance violations anonymously.

IVU introduced a whistleblowing guideline when it launched the whistleblower system in 2021 in order to protect whistleblowers. On the one hand, this is used to report possible compliance violations and, on the other, it allows whistleblowers to be protected, as reports that are submitted are treated confidentially while retaliatory measures are not permitted.

Whistleblowers can choose to use one of the following channels: submitting a report to management, to the compliance officer or to the works council or via the whistleblowing system. If information about possible compliance violations is submitted to managers or the works council, they always and immediately pass it on to the compliance officer. The compliance officer is an independent function and operates free of any instructions. If necessary, other people are called in to process a report. Strict confidentiality is always maintained in these cases. Incoming reports are processed

in accordance with the Hinweisgeberschutzgesetz (German Whistleblower Protection Act).

The IVU compliance officer monitors compliance with the relevant regulations.

No relevant reports were submitted via the whistleblowing system in 2023. Similarly, no significant fines or non-monetary sanctions were imposed as a result of non-compliance with laws.

### **To identify and counteract risks**

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

## **D. ECONOMIC REPORT**

### **Industry-related conditions**

Public transport continues to be 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. At the same time, the transport sector needs to be made more attractive and effective through digital networking and its environmental impact needs to be reduced by using alternative fuels.<sup>7</sup> The demand for high-quality solutions such as the IVU.suite will 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. The award of contracts for transport services is usually accompanied by a rise in requirements for the necessary software solutions. Investments in the rail sector can thus also reach 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 massively increasing their demands for digital support. This usually involves replacing legacy systems that are no longer supported and replacing them with modern,

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<sup>7</sup> BMDV - Overview: Climate protection in transport  
<https://bmdv.bund.de/SharedDocs/DE/Artikel/G/Klimaschutz-im-Verkehr/klimaschutz-im-verkehr-ueberblick.html>

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.

At the national level, rail is also being promoted and expanded in many European countries. The development of rail transport in Germany was initially a central element of the Climate and Transformation Fund (KTF), before it was comprehensively amended when the budget had to be restructured. Although the fundamentally necessary development of rail infrastructure may no longer be part of the KTF, it is nevertheless planned to secure the investments by rebuilding the railway's capital. Subsidies of this kind will have a positive impact especially in Germany, where IVU's solutions support over 85% of the transport service provided by all rail transport companies in passenger traffic.<sup>8</sup>

Germany is also the market where IVU is very successful in delivering solutions for selling, issuing and checking tickets – ticketing for short. Although we were able to supply a large number of customers with an appropriate solution for the “Deutschlandticket” (the 49-euro ticket), it can be seen that the precarious financial situation is causing customers to hesitate before making further investments. The uncertain medium to long-term future of the Deutschlandticket<sup>9</sup> is a major concern of the German public transport sector and transport companies are having to make the right decisions on future-proof solutions while having limited financial resources available to them. IVU assumes that this may lead to delays in receiving revenue in this segment.

The speed at which electric buses will develop in Germany is also uncertain. The drastic cut in subsidies will mean that the electrification of the public transport fleets will proceed at a significantly slower pace.<sup>10</sup> A large number of subsidy programmes have been and are still directed at vehicle procurement, which means that the impact of subsidies for IVU as a supplier of software for load and charging management is not directly very large in any case. The reduced speed at which the electric bus fleets are growing may nevertheless result in delayed demand and thus to delayed revenue from the products that IVU offers in this area.

The ambitious goals of the change in transport to promote climate protection are confronted by urgent personnel requirements and a lack of skilled workers.<sup>11</sup> 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 the task of dealing with the shortage of skilled workers in the best possible way.

Further challenges for transport companies in Germany include the consequences of the introduction of the “Deutschlandticket”. By supplying solutions for issuing and checking the “Deutschlandticket”, IVU was able to show that, even though the requirements were defined at short notice, the technical basis for its products and the product processes that it has established are future-proof. Although the introduction of the “Deutschlandticket” meant that the digital networking of the sales systems was accelerated, many companies are putting the brake on their willingness to invest as a result of the unsettled financing forecasts. Sustainable investments are thus once again gaining in importance as a topic, and IVU sees itself in a good position here, for example with the IVU.ticket.box. The fifth generation of this on-board computer solution went into production in 2023 and has the potential as a multipurpose device to impress on the market.

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 factors. IVU is constantly creating new incentives, with the result that the turnover rate of 7.2% remains below comparable values in the IT and software industry.

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<sup>8</sup> <https://www.bundesregierung.de/breg-de/aktuelles/der-klima-und-transformationfonds-2024-2250738>.

<sup>9</sup> Deutschland-Ticket: the biggest fare revolution in public transport <https://www.vdv.de/deutschlandticket.aspx>

<sup>10</sup> Industry dismayed by slump in e-bus funding <https://www.busund-bahn.de/nachrichten/politik-recht/detail/news/branche-bestuerzt-ueber-einbruch-bei-e-bus-foerderung.html>

<sup>11</sup> VDV, Representative survey “Personnel requirements in the transport industry”, 2021.



## Earnings, finances and assets of the Group

### Record earnings in 2023

With EBIT of €15.8 million (2022: €14.9 million) IVU has generated record earnings and thus exceeded the EBIT target for the fiscal year of over €15 million.

### Revenue

IVU will continue the growth of recent years in the 2023 fiscal year. The target of over €120 million was confirmed by revenue of €122.5 million (2022: €113.2 million). Alongside the proceeds from licence sales, the recurring revenue<sup>12</sup> from the maintenance and hosting business, which increased by €6.9 million to 41.1% (2022: 38.4%) played a part in IVU's growth.

In 2023, 54.6% (2022: 53.2%) of revenue was attributed to the German market, while 45.4% (2022: 46.8%) of revenue was produced by the export business. At €66.9 million (2022: €60.2 million) revenue on the German market exceeded the previous year's figure, while international revenue increased to €55.6 million (2022: €53.0 million).

### Gross profit

Gross profit rose by 11.7% to €101.1 million (2022: €90.6 million) thus exceeded €100 million for the first time. The increase can be attributed in particular to the growth in the high-margin licence and maintenance revenue. The target of €95 million was exceeded by a considerable margin.

### Personnel expenses, depreciation and other expenses

In 2023, personnel expenses rose by 12.2% to €67.6 million (2022: €60.3 million) primarily because of the growth of 11.6% in personnel capacity (FTE).

Depreciation and amortisation on non-current assets increased by €0.7 million to €4.5 million (2022: €3.8 million) and includes scheduled amortisation of €1.2 million on software licences capitalised in the context of the purchase of LBW Optimization GmbH (2022: €0.9 million).

Other operating expenses rose on account of higher internal IT and selling expenses to €13.2 million in 2023 (2022: €11.6 million).

### Financial result

The financial result increased by €0.8 million to €0.7 million (2022: €-0.1 million) primarily on account of higher interest income on low-risk cash investments.

### Tax expense

The tax expense of €5.0 million result from current tax expenses for the fiscal year totalling €5.0 million (2022: €2.5 million). The reason for the increase is because loss carryforwards were still available for off-setting in the previous year. The tax rate of 31% is in line with expectations.

### Finances and assets

At €30.0 million, trade receivables are slightly below the previous year's value (2022: €31.8 million). At €30.1 million (2022: €29.6 million), other current assets are in the same range as the previous year and include cash investments totalling €25 million (2022: €25 million).

Contract assets grew to €16.0 million (2022: €11.0 million) and thus remain at a satisfactorily low level.

Higher supplier advance payments meant that inventories increased by €0.5 million to €4.8 million (2022: €4.8 million).

Intangible assets fell as a result among other things of scheduled amortisation of the software licences capitalised during the acquisition of LBW Optimization GmbH in 2022 to €26.5 million (2022: €27.5 million).

The increase in right-of-use assets and lease liabilities can be attributed to the long-term extension of lease agreements for the premises in Aachen and Berlin. At the Aachen site in particular, the new lease agreement was accompanied by substantial investments by the owner to create attractive workplaces.

At €8.8 million (2022: €11.2 million), provisions are lower than the previous year's level and mainly relate to provisions for completed projects.

Equity increased by €4.4 million to 79.0 million (2022: €74.7 million) in the reporting year. The 2023 equity ratio is 51.8 % and thus slightly higher than the previous

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<sup>12</sup> Revenue from long-term maintenance and hosting contracts with customers.

year (2022: 51.3 %). IVU's net assets are stable, and its financial strength remains very good thanks to its positive capital structure.

## Liquidity

At €11.9 million (2022: €4.5 million) operating cash flow is higher than the previous year's figure in particular because of lower additions to other assets. Fluctuations in operating cash flow are common in the project business.

The cash flow from investing activities amounts €-0.8 million (2022: €-12.9 million). The purchase price payment for the acquisition of LBW Optimization GmbH in the amount of €10.8 million was included in the same period in the previous period.

Cash flow from financing activities includes payments for the acquisition of treasury shares of €2.6 million (2022: €4.4 million) and the dividend payment to shareholders of €4.2 million (2022: €3.9 million).

With cash and cash equivalents of €25.4 million as at 31 December 2023 (2022: €23.1 million) and term deposits of €25 million, IVU's liquidity can be classed as very good.

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.

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.

## Single-entity financial statement of IVU AG (HGB) Earnings, finances and assets

The single-entity financial statements of IVU AG were prepared in accordance with the regulations of German commercial law (HGB).

With EBIT (HGB) of €14.4 million (2022: €16.8 million), IVU AG exceeds the EBIT target for the fiscal year of approximately €10 million by some distance.

The target of approximately €100 million was exceeded, with IVU AG's revenue reaching €109.8 million (2022: €106.2 million). The proceeds from licence

sales and the recurring revenue<sup>13</sup> from the maintenance and hosting business contributed to this in particular.

In 2023, 58.1 % of the revenue was generated on the German market and 41.9 % of the revenue was generated in the export business. Revenue on the German market fell to €63.8 million (2022: €66.5 million), international revenue rose €46.0 million (2022: €39.5 million).

At €91.8 million (2022: €85.1 million) gross profit is 7.8 % higher than the same period in the previous year thanks to the increase in the earnings from the high-margin licence and maintenance business. The target of €85 million was exceeded by a considerable margin.

The personnel expenses of IVU AG increased to €60.6 million (2022: €54.2 million) in particular on account of the increase in personnel capacity (FTEs).

Amortisation and depreciation of intangible assets and property, plant and equipment at €1.4 million are in the same range as the previous year (2022: €1.2 million).

At €15.4 million (2022: €13.0 million), other operating expenses are 18.5% higher than the previous year as a result of the company's growth and the increase in internal IT expenses.

At €24.8 million, the trade receivables are at the same level as the previous year (2022: €24.2 million).

Inventory levels increased by €4.2 million to €22.2 million (2022: €18.0 million) on account of project sections that have not yet been invoiced.

At €20.5 million (2022: €23.6 million), the other provisions are lower than the previous year's level and mainly related to provisions for completed projects and personnel provisions.

Provisions for taxes increased to €5.6 million (2022: €2.3 million) on account of the full use of the tax loss carryforwards.

Equity increased by €3.8 million to €62.5 million (2022: €58.7 million) in the reporting year. With total assets increasing, the 2023 equity ratio increased to 52.4 % and is thus higher than the previous year (2022: 50.7 %). IVU AG's net assets are stable, and its financial strength remains very good thanks to its positive capital structure.

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<sup>13</sup> Revenue from long-term maintenance and hosting contracts with customers.

Despite the lower net income for the year, resulting in particular from the only moderate change in receivables year-on-year, the operating cash flow reached €6.0 million (2022: €1.6 million) and thus higher than the previous year. Fluctuations in operating cash flow are common in the project business.

Taking into account the cash flow for investment activities of €-0.6 million (2022: €-12.7 million) and financing activities of €-6.8 million (2022: €-8.2 million), cash and cash equivalents declined by €1.4 million.

Cash flow from financing activities includes the dividend payment to shareholders of €4.2 million (2022: €3.9 million).

Included in the bank balances that are recognised are short-term notice deposits with a notice period of at least three months totalling €25.0 million (2022: €25.0 million). With €42.1 million in cash and cash equivalents as at 31 December 2023 (2022: €43.5 million), IVU AG's liquidity continues to be rated as very good.

## Summary

The IVU Group and IVU AG can look back on a successful year in 2023, characterised by growth in revenue, gross profit and operating profit (EBIT). We also to continue the profitable growth course in 2024 and are looking to the future with confidence thanks to the good order situation and promising sales opportunities.

## E. FORECAST, RISK AND OPPORTUNITY REPORT

### Order situation

A large portion of IVU's targets are already covered with an order backlog of over €105 million for the current financial year as at 28 February 2024.

### 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 is consequently high. The continuing significant 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 2024, we expect consolidated revenue of over €130 million (actual for 2023: €122.5 million), a gross profit of around €110 million (actual for 2023: €101.1 million) and an operating result (EBIT) of around €17 million (actual for 2023: €15.8 million).

For 2024, revenue of around €110 million, (actual 2023: €109.8 million), gross profit of over €90 million (actual 2023: €91.8 million) and operating profit (EBIT) of more than €12 million (actual 2023: €14.4 million), where these figures do not take into consideration potential effects from any restructuring within the IVU Group under company law, are expected for the IVU AG single entity (HGB).

## Risk management and internal control system<sup>14</sup>

As an international 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 that has been 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. 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,

<sup>14</sup> This section was not reviewed by the auditor.



guidelines and actions 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.

As at 31 December 2023, 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, there was no material matter as at 31 December 2023 that jeopardised the achievement of the most important corporate objectives (strategic, operational, financial, compliance, sustainability) and that had not been adequately uncovered and dealt with accordingly by IVU's risk management process. It should be noted, however, 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 can be ruled out.

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 to ensure 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.

The IVU Executive Board established an early risk identification system to identify developments that could jeopardise the continued existence of the Group as a going concern at an early stage and take suitable measures. Developments that could jeopardise the continued existence of the Group as a going concern are risks that exceed the company's risk-bearing capacity. Risk-bearing capacity is the maximum amount of risk that can be borne without jeopardising the company's continued existence as a going concern. The evaluation is based on the economic situation, size, regulatory circumstances and opportunities to raise capital. The risk-bearing capacity is determined using the liquidity planning and the EBIT of IVU expected for the current and the next fiscal year. The identification (forecast) of risk capacity assesses the identified risks to form an overall risk position, taking into account net risks. For risk inventories, a period of two years is established for consideration. However, this may be adjusted on a case-by-case basis (e.g., projects with longer terms).

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

### Operational business risks

**Project-related risks:** The project business at IVU is based entirely on service contracts that build 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 damage remains medium. Measures to reduce these risks are efficient project management as well as adherence to deadlines and quality standards.

**International project-related risks:** IVU is subject to the general political and economic conditions in 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 damage 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, IVU uses a range of instruments for securing payment, such as letters of credit, advance payments or payments on account.

**Delays and defaults in payment:** 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.

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.

**Cyber and information security:** The global increase in threats to cyber security as well as a greater level of professionalism in computer crime lead to risks

relating to the security of the products, solutions and services as well as IT systems and networks as well as to risks concerning the confidentiality, availability and integrity of data.

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.

The probability of occurrence and the extent of potential losses remain unchanged at medium and high respectively.

To protect against cyber crime, IVU uses the latest defence systems (firewalls etc.) and modern hardware and software infrastructure, which are 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 regularly arranges to be audited in accordance with this standard.

**Quality defects:** Defects that emerge in the software or hardware that is supplied can delay acceptance and consequently the payment of invoices. Our assessment of the probability of occurrence and the extent of possible damage remains 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 defects because only customer-specific adaptations rather than special developments are required and all products can be subjected to intensive testing.

## Strategic risks

**Competition:** The global markets for our products, solutions and services are characterised by intense competition. IVU therefore continually monitors and analyses competition, market and industry data in order to be able to better foresee unfavourable trends in the competitive environment instead of merely reacting to them.

**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 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.

**Inflation:** The changed inflation environment may give rise to risks for the financial position and results of operation. The probability of occurrence and the extent of damage both remain unchanged at medium. IVU has agreed price adjustment clauses in most long-term contracts and prices inflation expectations into new contracts.

## Compliance

**Requirements arising from regulations, legislation and directives:** Regulatory requirements are being introduced or amended at an unprecedented rate, often with only a very short lead time before they are implemented. This harbours the risk that new requirements will come into effect more quickly than they can be implemented in the relevant systems and processes, which can have a negative impact on the business operations and make it necessary to carry out remedial actions manually. We rate the probability of occurrence and the extent of possible damage to be medium. We monitor the political and regulatory situation in all our important markets in order to anticipate potential problem areas with the aim of quickly adapting our business activities and processes to the changed conditions.

## Personnel

**Recruitment and retention:** 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. Our assessment of the probability of occurrence and the extent of possible damage remain unchanged 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.

## F. SUPPLEMENTARY INFORMATION

### Supplementary information as per Section 289a and Section 289 (1) sentence 5 and Section 315a HGB and Section 315 (1) sentence 5 HGB

The company's share capital of €17,719,160 is divided into 17,719,160 no-par value 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 Executive Board can make use of this authorisation for any legally permissible purpose. In 2022 and 2023, 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 a buyback programme for treasury shares on 2 June 2023, which was extended on 7 September 2023. The purpose of this buyback programme was in particular to use the shares to service Executive Board remuneration and employee participation programmes. A total of 176,128 shares were repurchased at a total price of €2,552 thousand. This corresponds to 0.99% of the no-par value shares in the share capital of IVU Traffic Technologies AG. The shares were acquired exclusively via the stock exchange by a bank commissioned by the company (XETRA trading).

From the shares acquired, a total of 49,542 no-par value shares were issued (26 shares at an issue price of €16.26 each, 40,380 at an issue price of €16.74 each, 3,200 at an issue price of €16.47 each, 5,914 at an issue price of €14.62 each and 22 at an issue price

of €12.92 each) for all IVU employees in Germany in the 2023 financial year. As part of their variable remuneration, the members of the Executive Board received 118,713 shares at an issue price of €16.47 each as well as 92,127 shares at an issue price of €16.43 each in the context of the long-term incentive plan that ended on 31 December 2023. The number of shares issued corresponds to 0.91% 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.

## Summarised corporate governance statement in accordance with Section 289f(2) and (5) and in accordance with 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](http://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.

Berlin, 19 March 2024

**The Executive Board**



Martin Müller-Elschner



Matthias Rust



Leon Struijk





# CONSOLIDATED FINANCIAL STATEMENTS







# Consolidated Balance Sheet as at 31 December 2023

ASSETS	Notes	31 Dec 2023	31 Dec 2022*
		€ thousand	€ thousand
<b>A. Current assets</b>			
1. Cash and cash equivalents	(128)	25,397	23,051
2. Trade receivables	(120) - (123)	30,042	31,815
3. Contract assets	(124) - (125)	16,011	10,999
4. Inventories	(119)	4,820	4,271
5. Income tax assets	(154) - (158)	380	518
6. Other assets	(127)	30,074	29,567
<b>Current assets, total</b>		<b>106,724</b>	<b>100,221</b>
<b>B. Non-current assets</b>			
1. Tangible fixed assets	(104)	1,915	1,850
2. Intangible assets	(104) - (106)	26,496	27,510
3. Financial assets	(107) - (113)	837	650
4. Rights of use	(114) - (118)	16,465	15,291
5. Deferred taxes	(154) - (158)	93	91
<b>Non-current assets, total</b>		<b>45,806</b>	<b>45,392</b>
<b>ASSETS, TOTAL</b>		<b>152,530</b>	<b>145,613</b>

\*The comparative figures were adjusted in accordance with IAS 8.42. See note 8.

		31 Dec 2023	31 Dec 2022*
LIABILITIES	Notes	€ thousand	€ thousand
<b>A. Current liabilities</b>			
1. Current trade accounts payable	(55)	2,786	4,748
2. Contractual liabilities	(125) - (126)	13,423	11,867
3. Current leasing liabilities	(116) - (118)	1,517	1,373
4. Provisions	(150) - (151)	6,704	10,125
5. Tax liabilities	(154) - (158)	5,651	2,340
6. Other current liabilities	(152) - (153)	17,598	17,084
<b>Current liabilities, total</b>		<b>47,679</b>	<b>47,537</b>
<b>B. Non-current liabilities</b>			
1. Leasing liabilities	(116) - (118)	15,607	14,257
2. Deferred taxes	(154) - (158)	4,583	4,565
3. Provisions for pensions	(138) - (148)	3,581	3,490
4. Provisions	(150) - (151)	2,052	1,100
<b>Non-current liabilities, total</b>		<b>25,823</b>	<b>23,412</b>
<b>C. Equity</b>			
1. Share capital	(129) - (134)	17,719	17,719
2. Additional paid-in capital	(59) - (63)	889	1,792
3. Revenue reserve	(61) - (63)	64,857	59,450
4. Other reserve	(62)	-76	-46
5. Own shares	(131) - (136)	-4,361	-4,251
<b>Equity, total</b>		<b>79,028</b>	<b>74,664</b>
<b>LIABILITIES, TOTAL</b>		<b>152,530</b>	<b>145,613</b>



# Consolidated income statement for the 2023 financial year

	Notes	2023 € thousand	2022* € thousand
<b>Revenue</b>	(161) - (162)	<b>122,492</b>	<b>113,234</b>
Other operating income	(163)	751	1,197
Cost of materials	(164)	-22,113	-23,862
<b>Gross profit</b>		<b>101,130</b>	<b>90,569</b>
Personnel expenses	(165)	-67,611	-60,278
Depreciation on non-current assets	(114)-(118), (166)	-4,535	-3,842
Other operating expenses	(167)	-13,213	-11,590
<b>Earnings before interest and taxes (EBIT)</b>		<b>15,771</b>	<b>14,859</b>
Financial income	(168)	996	106
Financial expenses	(169)	-533	-300
Result from investments accounted for using the equity method	(112) - (113)	187	52
<b>Earnings before taxes (EBT)</b>		<b>16,421</b>	<b>14,717</b>
Actual income taxes	(154) - (158)	-4,958	-2,511
Deferred taxes	(154) - (158)	-86	-2,079
<b>CONSOLIDATED NET RESULT</b>		<b>11,377</b>	<b>10,127</b>

Number of potentially diluted ordinary shares (in thousands)	(170) - (171)	17,593	17,719
Earnings per share (diluted)	(170) - (171)	€0.65	€0.57
Weighted average shares outstanding (in thousands)	(170) - (171)	17,550	17,489
Earnings per share (basic)	(170) - (171)	€0.65	€0.58

\*The comparative figures were adjusted in accordance with IAS 8.42. See note 8.

# Consolidated statement of comprehensive income for the 2023 financial year

	Notes	2023 € thousand	2022* € thousand
<b>Consolidated net result</b>		<b>11,377</b>	<b>10,127</b>
Currency translation	(30) - (31), (61)	79	47
<b>Other comprehensive income to be reclassified to the consolidated income statement in subsequent periods</b>		<b>79</b>	<b>47</b>
Actuarial losses/gains from the valuation of pension commitments	(138) - (143)	-182	1,226
Income tax effect	(154) - (158)	73	-363
<b>Other comprehensive income not reclassified to the consolidated income statement in subsequent periods</b>		<b>-109</b>	<b>863</b>
<b>Other comprehensive income after taxes</b>		<b>-30</b>	<b>910</b>
<b>CONSOLIDATED COMPREHENSIVE INCOME AFTER TAXES</b>		<b>11,347</b>	<b>11,037</b>

\*The comparative figures were adjusted in accordance with IAS 8.42. See note 8.

# Consolidated statement of changes in equity for the financial years 2023

Notes	SHARE CAPITAL € thou.	CAPITAL RESERVE € thou.	RETAINED EARN- INGS* € thou.	OTHER RESERVES € thou.	FOREIGN CURRENCY ADJUSTMENT ITEM € thou.	OWN SHARE AT ACQUI- SION COST € thou.	TOTAL* € thou.
	(129) - (133)	(59 - 63), (67)	61	62	62	(132 - 137)	
<b>As at 1 January 2022</b>	<b>17,719</b>	<b>1,307</b>	<b>53,181</b>	<b>-1,065</b>	<b>109</b>	<b>-3,375</b>	<b>67,876</b>
Consolidated net income 2022	0	0	10,127	0	0	0	10,127
Other comprehensive income after taxes	0	0	0	863	47	0	910
<b>Consolidated recognised re- sults after tax</b>	<b>0</b>	<b>0</b>	<b>10,127</b>	<b>863</b>	<b>47</b>	<b>0</b>	<b>11,037</b>
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 Ex- ecutive Board remunera- tion	0	339	0	0	0	0	339
Dividend distribution (€0.22 per share)	0	0	-3,858	0	0	0	-3,858
<b>AS AT 31 DECEMBER 2022</b>	<b>17,719</b>	<b>1,792</b>	<b>59,450</b>	<b>-202</b>	<b>156</b>	<b>-4,251</b>	<b>74,664</b>
<b>As at 1 January 2023</b>	<b>17,719</b>	<b>1,792</b>	<b>59,450</b>	<b>-202</b>	<b>156</b>	<b>-4,251</b>	<b>74,664</b>
Consolidated net income 2023	0	0	11,377	0	0	0	11,377
Other comprehensive income after taxes	0	0	0	-109	79	0	-30
<b>Consolidated recognised re- sults after tax</b>	<b>0</b>	<b>0</b>	<b>11,377</b>	<b>-109</b>	<b>79</b>	<b>0</b>	<b>11,347</b>
Acquisition of own shares	0	0	0	0	0	-2,575	-2,575
Use of own shares	0	-1,071	-313	0	0	2,465	1,081
Addition to share-based Ex- ecutive Board remunera- tion	0	168	-1,429	0	0	0	-1,261
Dividend distribution (€0.24 per share)	0	0	-4,228	0	0	0	-4,228
<b>AS AT 31 DECEMBER 2023</b>	<b>17,719</b>	<b>889</b>	<b>64,857</b>	<b>-311</b>	<b>235</b>	<b>-4,361</b>	<b>79,028</b>

\*The comparative figures were adjusted in accordance with IAS 8.42. See note 8.

# Consolidated statement of cash flows for the 2023 financial year

	Notes	2023 € thou.	2022* € thou.
Consolidated earnings before income taxes for the period		16,421	14,717
Depreciation of fixed assets	(166)	4,535	3,842
Change in provisions	(150) - (151)	-2,378	365
Net interest income	(168)	-463	164
Equity-settled share-based payment	(64) - (67), (134)	-180	1,634
Other non-cash expenses / income		0	-157
Share of profit of joint ventures	(113)	-187	-52
Result from the disposal of assets		0	-15
		<b>17,748</b>	<b>20,498</b>
Changes in current assets and liabilities			
Inventories	(119)	-549	-1,090
Receivables and other assets	(120) - (127)	-3,585	-9,715
Liabilities (excluding provisions)	(55)	108	-3,913
		<b>13,722</b>	<b>5,780</b>
Interest paid		-134	-137
Income taxes paid		-1,674	-1,176
<b>Cash flow from operating activities</b>		<b>11,914</b>	<b>4,467</b>
Payments made for investments in fixed assets		-1,749	-1,914
Payments for acquisition of shares in consolidated subsidiaries		0	-10,811
Payments for the acquisition of minority interests		0	-251
Income from disposals of fixed assets		2	4
Interest received		996	106
<b>Cash flow from investing activities</b>		<b>-751</b>	<b>-12,866</b>
Acquisition of own shares	(133) - (138)	-2,575	-4,395
Payments for the repayment of leasing liabilities	(116) - (118)	-2,014	-1,757
Payment of dividends		-4,228	-3,858
<b>Cash flow from financing activities</b>		<b>-8,817</b>	<b>-10,010</b>
Cash and cash equivalents at the beginning of the period		23,051	41,460
Net change in cash and cash equivalents		2,346	-18,409
<b>CASH AND CASH EQUIVALENTS AT THE END OF THE PERIOD</b>	<b>(128)</b>	<b>25,397</b>	<b>23,051</b>

+ = cash inflow / - = cash outflow

\*The comparative figures were adjusted in accordance with IAS 8.42. See note 8.



# NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS









# Consolidated notes for the financial year 2023

## 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 2023 and the Group management report for the 2023 financial year on 19 March 2024 and then submitted them to the Supervisory Board for approval. The Supervisory Board approved them at its meeting on 21 March 2024.
- 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 938 in 2023 (2022: 837).
- 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, Frankfurt am Main, Leipzig, Hannover (Germany), Rome (Italy), Olten (Switzerland), Vienna (Austria), Utrecht (Netherlands), Paris (France), Rome (Italy), Birmingham (UK), Stockholm (Sweden), Budapest (Hungary), Istanbul (Turkey), New York (United States), Toronto (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 (including corrections of errors)

- 8 A new rental agreement was concluded at our Aachen location in December 2022. This was not taken into account in the IFSR 16 valuation for the 2022 annual financial statements. The correction results in the adjustments to the comparative values for 2022 in the consolidated balance sheet and income statement shown in the following table.

	previously re- ported T€	Adjust- ment T€	ad- justed T€
Rights of use	9,620	5,671	15,291
Current lease liabilities	1,574	-201	1,373
Non-current lease liabilities	8,377	5,880	14,257
Deferred tax liabilities	4,568	-3	4,565
Retained earnings	59,455	-5	59,450
Depreciation of non-current assets	-3,843	1	-3,842
Other expenses	-11,596	6	-11,590
Financial expenses	-285	-15	-300
Deferred taxes	-2,082	3	-2,079
Consolidated net income	10,132	-5	10,127
Comprehensive income after taxes	11,042	-5	11,037
Cash flow from operating activities	4,473	-6	4,467
Cash flow from financing activities	-10,016	6	-10,010

There was no change to the earnings per share as a result of the previous year's correction.

- 9 Income tax assets are recognised separately in the balance sheet for the first time. These were previously included in the recognised other assets.

Current and non-current provisions are recognised separately in the balance sheet for the first time.

- 10 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.

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

- 11 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, 2024. IVU did not implement early adoption of the amendment and does not expect this to produce any significant effects on the consolidated financial statements.
- 12 On 12 February 2021, the IASB issued amendments to IAS 1 "Presentation of Financial Statements" and IAS 8 "Accounting Policies, Changes in Accounting Estimates and Errors." The amendment to IAS 1 "Disclosures of Accounting Policies" will in future require only the significant accounting policies to be presented in the notes. To be significant, the accounting policy must be related to material transactions or other events and there must be a reason for the presentation. The amendment to IAS 8 "Definition of Accounting Estimates" clarifies how entities can better distinguish changes in accounting policies from changes in accounting estimates. The amendments are effective for annual reporting periods beginning on or after 1 January 2023. According to the IASB, early application of the amendments is permitted, but requires EU endorsement. No significant effects on the consolidated financial statements of IVU have resulted from the amendments.
- 13 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.



- 14 In March 2022, the OECD published technical guidelines on its global minimum tax rate of 15%, which has been agreed as the second “pillar” to address the tax challenges arising from the digitalisation of the economy. These guidelines explain the application and operation of the Global Anti-Base Erosion (GloBE) Rules, which were agreed and published in December 2021. These rules provide a co-ordinated system designed to ensure multinational enterprises with revenues above €750 million pay an effective rate of at least 15% on the income arising in each of the jurisdictions in which they operate. The IASB issued International Tax Reform – Pillar Two Model Rules (Amendments to IAS 12) on 23 May 2023. As IVU does not fulfil the size criterion for the minimum tax rate, no effects on its consolidated financial statements result from this.
- 15 Other new accounting standards were examined, but were not material for the consolidated financial statements of IVU.

## Significant judgements, estimates and assumptions

- 16 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.
- 17 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 corona pandemic or armed conflicts in parts of the world are not expected to have any significant effects on IVU. This is mainly due to the structure of IVU’s business, which focuses on the development and sale of primarily digital products.

- 18 **Valuation of acquired software as part of a purchase price allocation:** The basis for the valuation are the expected revenue from the software, anticipated license payments and saved license instalments.
- 19 **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 was carried out as at the end of the reporting period in fiscal 2022. Starting from 2023, the impairment testing will be performed in the fourth quarter of the fiscal year on the basis of the data from the quarterly financial statements as at 30 September. Impairment testing is based on the future cash flows to be generated for individual assets or groups of assets combined as cash-generating units.
- 20 **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.

**21 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.

**22 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.

## Consolidation principles

### a) Subsidiaries

**23** The consolidated financial statements comprise the financial statements of IVU AG and the subsidiaries it controls as at 31 December 2023. 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.

**24** 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.

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.

**25** 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.consult GmbH Berlin, Germany ('IVU.consult')	100.0
IVU Traffic Technologies Canada Inc. Toronto, Canada ('IVU Canada')	100.0
IVU Chile Ltda. Santiago de Chile, Chile ('IVU Chile')	100.0

## b) Joint ventures

- 26 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. 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.

Further statements on the accounting are provided below in the section "Non-current assets" under the heading "Shares in financial assets accounted for using the equity method".

## c) Consolidation adjustments and uniform measurement in the Group

- 27 The annual financial statements of the subsidiaries included in the consolidated financial statements are based on uniform accounting standards and reporting periods.
- 28 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

- 29 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

- 30 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.
- 31 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 = 1.0799; 2022: 1.0155). Income and expenses are translated at the weighted average exchange rate for the financial year (CHF/EUR = 1.0290; 2022: 0.9953).

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 = 1.1507; 2022: 1.1275). Income and expenses are translated at the weighted

average exchange rate for the financial year (GBP/EUR = 1.1497; 2022: 1.1729).

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 = 0.9050; 2022: 0.9376). Income and expenses are translated at the weighted average exchange rate for the financial year (USD/EUR = 0.9248; 2022: 0.9518).

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 = 0.0901; 2022: 0.0899). Income and expenses are translated at the weighted average exchange rate for the financial year (SEK/EUR = 0.0871; 2022: 0.0941).

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 = 0.0026; 2022: 0.0025). Income and expenses are translated at the weighted average exchange rate for the financial year (HUF/EUR = 0.0026; 2022: 0.0026).

The functional currency of the foreign operation IVU Canada is its national currency (Canadian dollar). 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 (CAD/EUR = 0.6830; 2022: not relevant). Income and expenses are translated at the weighted average exchange rate for the financial year (CAD/EUR = 0.6852; 2022: not relevant).

The functional currency of the foreign operation IVU Chile is its national currency (Chilean peso). As the operating activities of the company are on hold, it did not have any income or expenses in the reporting year or, as in the previous year, any assets or liabilities as at the end of the reporting year. In the previous year, the income and expenses were converted into the reporting currency of IVU AG (euro) at the weighted average exchange rate of the fiscal year (CLP/EUR = 0.0011).

- 32 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

- 33 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.
- 34 **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.
- 35 **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.

- 36 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.
- 37 Costs incurred to restore or preserve the future economic benefits that the company had originally anticipated are expensed as incurred.
- 38 **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.
- 39 No development costs were capitalised in the 2023 and 2022 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

- 40 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.

- 41 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.

- 42 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

- 43 Where an ownership interest is 20% or higher, there is a (rebuttable) presumption of a significant influence and thus of the existence of the interest in an associate. In such cases and also where investments are made in joint ventures, the investment is treated for accounting purposes by applying the equity method. The investment is initially measured at cost. In the subsequent measurement, the carrying amount of the investment is increased or reduced based on the IVU's share in the profit or loss in accordance with the last available financial statements of the company. In

addition, the dividends received from the company also reduce the carrying amount of the investment.

### d) Impairment of non-current assets

- 44 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 2023 and 2022 financial years.

## Financial assets

- 45 **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".

- 46 **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.

**47 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.

- 48 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.
- 49 Impairment of financial assets:** Additional details of the impairment of financial assets are contained in section "Significant judgements, estimates and assumptions" and in the disclosures on the consolidated balance sheet in chapter C.

- 50** The financial assets shown in the following table are recognised at amortised cost in accordance with the IFRS 9 measurement category:

	31.12.2023 T€	31.12.2022 T€
Trade accounts receivable	30,042	31,815
Contract assets	16,011	10,999
Term and fixed-term deposits (not available within 3 months)	25,000	25,000
Call money to secure guarantees	463	1,168
Receivables from taxes (without income taxes)	936	1,175
Other	652	359
<b>TOTAL</b>	<b>73,104</b>	<b>70,516</b>

## Objective and methods of financial risk management

- 51** 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.
- 52** 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 note (21).
- 53** 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.
- 54** 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 2022 and 2023 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.

- 55 The financial liabilities as at 31 December 2023 are as follows:

	31.12.2023 T€	31.12.2022* T€
Liabilities from Trade accounts payable (current)	2,786	4,748
Leasing liabilities (current)	1,517	1,373
Leasing liabilities (non-current)	15,607	14,257
Other liabilities (current)	7,189	6,671
<b>TOTAL</b>	<b>27,099</b>	<b>27,049</b>

\*The comparative figures were adjusted in accordance with IAS 8.42. See note 8.

Given the short-term nature of the financial liabilities at the respective balance sheet dates, there are and were no significant deviations between the carrying amounts according to the balance sheet and the undiscounted cash flows.

## Current assets

### a) Inventories

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

### b) Current contract assets and trade receivables

- 57 These contract balances are described in more detail in the section "Revenue from contracts with customers".

### c) Cash and cash equivalents

- 58 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. The term deposits recognised as cash and cash equivalents have a

term of a maximum of 3 months and are not subject to any fluctuations in value.

## Equity

- 59 Equity comprises subscribed capital, capital reserves, retained earnings, other reserves, foreign currency adjustment items and the reserve for treasury shares.
- 60 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 note (63) and the section "Share-based payment arrangements" for information on the impact of treasury shares and share-based payment arrangements on capital reserves.
- 61 Retained earnings include the appropriation of profits in accordance with Section 174 of the German Stock Corporation Act (AktG).
- 62 Actuarial gains and losses from the measurement of defined benefit pension commitments and unrealised gains and losses in currency translation adjustments from currency translation at foreign subsidiaries are reported in the other reserves.
- 63 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

- 64 For share-based payment arrangements that provide for settlement by equity instruments, the fair value is calculated on the grant date and distributed as an expense with a corresponding increase in equity over the period in which the consideration is performed. 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.

IVU will acquire treasury shares to fulfil the obligations arising from share-based payment

arrangements in the course of share buyback programmes in compliance with legal requirements and issue these on the settlement date after the end of the vesting period.

- 65 Determination of fair values:** The fair value of the share programme at the date of granting amounts to €666 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 €15.39 an index value of 21,265.03 points – in each case on the grant date – a term of 4.6 years, a dividend yield of 1.5%, standard deviations of returns of 26.72% (index) and 39.76% (share price) and a risk-free interest rate of 0.72% were used.
- 66 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 €168 thousand.

## Provisions for pensions

- 67** 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 actuarial gains and losses, the effects of the asset ceiling and the returns on plan assets, each 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 other comprehensive income 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) Provisions

- 68** 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.

Warranty provisions are recognised on the basis of estimates of the personnel costs, external services and material costs required for fulfilment.

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

- 69 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.

- 70 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

- 71** 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.
- 72** 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

- 73** 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 income in the income statement.

- 74** 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 2023.
- 75** In 2023, IVU AG recognised funding under various government projects for the development of software applications and further state development funding totalling €495 thousand (2022: €680 thousand). The income is included in other income.

## Research and development costs

- 76** Research and development costs amounted to €7,372 thousand in the 2023 financial year (2022: €6,361 thousand) and are largely recognised in personnel expenses.

## Leases

- 77** 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.
- 78 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).

**79 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.

**80 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.

**81** The Group has concluded several lease agreements that contain extension and cancellation options. These mainly relate to the property leases for the Berlin, Aachen and Rome locations. The assessment of whether the exercise of these extension and cancellation options is sufficiently certain requires significant discretionary decisions on the part of management.

## Revenue from Contracts with Customers

**82** 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.

**83** 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.

**84** The significant judgements, estimates and assumptions in connection with revenue from contracts with customers are explained in note (20).

**85** 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.

**86** 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 note (68).

- 87 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.
- 88 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

- 89 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

- 90 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

- 91 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

- 92 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.

#### e) Contract balances

- 93 **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. The item includes sales revenue realised on a pro rata basis less payments received. Contract assets are usually calculated by the ratio of costs incurred to the total planned costs (cost-to-cost method).
- 94 **Trade receivables:** A receivable is an unconditional claim by the Group to consideration, i.e. it becomes due automatically through the passage of time. 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. The accounting policies for financial assets are explained in note (45) et seq..
- 95 **Contract liabilities:** A contract liability is the Group’s obligation to transfer goods or services to a customer for which it has received or will receive consideration. 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

- 96 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.
- 97 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.
- 98 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.
- 99 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.

- 100 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.
- 101 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

- 102 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

- 103 No business segments that can be used as a basis for segment reporting can be derived from the reporting structure for the 2023 financial year because the IVU Group has only one reportable segment 'IVU Total' in the 2022 and 2023 financial years. The financial information on geographical segments is presented in chapter F.

## C. NOTES TO THE CONSOLIDATED STATEMENT OF FINANCIAL POSITION

### Non-current assets

#### Intangible assets and property, plant and equipment

- 104 With regard to the development of non-current assets in the financial year ending 31 December 2023, please refer to the development of intangible assets and property, plant and equipment shown in the statement of changes in fixed assets attached as an annexe to the notes to the consolidated financial statements.
- 105 On 30 September 2023 and 31 December 2022, 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 €18,277 thousand (2022: €18,277 thousand).
- 106 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% (2022: 2.0%). Furthermore, for the detailed planning period the management is planning growth in gross profit of 6.7% on average. The cash flows shown were derived from past information and contractually agreed orders for the 2024 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 (2022: 12.59%) 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 1% and 0%. This also did not give rise to impairment requirements.

#### Acquisition of EBS ebus solutions GmbH in 2024

- 107 By a purchase agreement of 20 December 2023 and with effect from 2 January 2024, IVU Traffic Technologies AG (IVU AG), Berlin, concluded as the buyer a share purchase agreement for the purchase of the remaining 26% of the shares in EBS ebus solutions GmbH (EBS GmbH), Aachen, from ebusplan GmbH as the seller. EBS was established as a joint venture of IVU AG and ebusplan GmbH, Aachen, in 2019. IVU AG has held a share of 74% since then, which was accounted for using the equity method in accordance with IAS 28, because the provisions of the joint venture shareholders' agreement on voting rights meant that IVU AG was unable to control the activities of EBS that have a significant influence on its returns. IVU AG now holds 100% of the voting rights following the acquisition.

The acquisition of the shares was completed on 2 January 2024. EBS will be included in the scope of consolidation of the IVU Group from this date onwards.

- 108 The background to the transaction is the aim to permanently secure exclusive access to EBS's two software products, EBS.charge and EBS.forecast.
- 109 An amount of €400 thousand was agreed as the purchase price for the remaining 26% of the shares. Payment was made in the form of cash and cash equivalents. In the case of business combinations achieved in stages, a remeasurement recognised in profit or loss of the shares already held in the company has to be carried out at the time that control is obtained.

The fair value of the equity share of 74% that was directly held by the buyer before the acquisition date amounts to €1,139 thousand as at the



acquisition date. Income of €587 thousand in 2024 results from the remeasurement of this share of the equity.

Incidental acquisition costs of approximately €6 thousand are expected as part of the transaction and are recognised as an expense.

- 110 The initial consolidation was carried out in accordance with IFRS 3 “Business Combinations” using the acquisition method. The fair values of the acquired and identified assets and liabilities can be presented using the preliminary purchase price allocation as follows:

	€ thou.
Other tangible and intangible assets	9
Software	307
Receivables and other assets	7
Cash and cash equivalents	337
Deferred tax assets	209
Liabilities incurred	-117
Deferred tax liabilities	-100
<b>Fair value of net assets</b>	<b>652</b>
Goodwill	886
<b>Consideration transferred</b>	<b>1,538</b>

- 111 Goodwill reflects employee expertise and related synergies in terms of business development and earnings prospects. Goodwill is subject to an indefinite useful life and not deductible for tax purposes.

### Financial assets accounted for using the equity method

- 112 As at 31 December 2023, the carrying amount of the financial assets accounted for using the equity method was €837 thousand (2022: €650 thousand), of which €551 thousand (2022: €399 thousand) is attributed to the shares in the EBS joint venture and €286 thousand (2022: €251 thousand) is attributed to a 20% stake in the Italian company TRENOLab S.r.l., Gorzia/Italy (TRENOLab).
- 113 EBS was founded in the 2019 fiscal year, is not listed on the stock exchange and mainly operates in the development of software for the planning and control of electric buses. It has no goodwill.

- 114 The following table summarises the financial information of EBS for the 2023 and 2022 financial year as presented in its own financial statements:

	31 Dec 2023 € thou.	31 Dec 2022 € thou.
Ownership interest	74 %	74 %
Non-current assets	218	9
Current assets	7	159
Cash and cash equivalents	337	134
Financial liabilities	0	0
Non-financial liabilities	-117	-63
<b>Net assets (100%)</b>	<b>445</b>	<b>239</b>
Group share of net assets (74%)	329	177
Carrying amount of the share in the Group as at 31 December	551	399
	1 Jan 2023 to 31 Dec 2023	1 Jan 2022 to 31 Dec 2022
<b>COMPREHENSIVE INCOME (100%)</b>	<b>206</b>	<b>70</b>
Group share in comprehensive income (74%)	152	52

In the reporting year, pro rata income to be recognised amounting to €152 thousand (2022: €52 thousand) is recognised in the consolidated income statement. Further investment income totalling €35 thousand results from the equity interest in TRENOLab (2022: €0 thousand).

### Long-term rights of use and lease liabilities<sup>15</sup>

- 115 The table below shows the carrying amounts of the rights of use recognised from tenancies and leases and the changes during the reporting period:

	Property rental € thou.	Cars € thou.	Hard- ware € thou.	<b>Total € thou.</b>
As at 1 January 2023*	14,923	185	183	15,291
Additions	2,866	143	0	3,009
Depreciation expense	1,660	129	46	1,835
<b>AS AT 31 DECEMBER 2023</b>	<b>16,129</b>	<b>199</b>	<b>137</b>	<b>16,465</b>

<sup>15</sup> The comparative figures marked with \* were adjusted in accordance with IAS 8.42. See note 8.

116 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 2022	8,560	148	0	8,708
Additions*	8,394	154	229	8,777
Disposals	538	0	0	538
Depreciation expense*	1,496	117	46	1,659
Currency difference	3	0	0	3
<b>AS AT 31 DECEMBER 2022*</b>	<b>14,923</b>	<b>185</b>	<b>183</b>	<b>15,291</b>

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

	2023 € thou.	2022* € thou.
As at 1 January	15,630	8,925
Additions	4,508	11,063
Disposals	0	-546
Interest accrued	-1,101	-2,118
Payments	-1,913	-1,697
Currency difference	0	3
<b>AS AT 31 DECEMBER</b>	<b>17,124</b>	<b>15,630</b>
Of which due within 1 year	1,517	1,373
Of which due between 1 and 5 years	5,588	5,746
Of which due in more than 5 years	10,019	8,511

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

	2023 € thou.	2022* € thou.
Depreciation expense for rights of use	1,835	1,660
Interest expenses for lease liabilities	399	163
Expenses for short-term leases (included in other operating expenses)	101	63
Expenses for leases with an asset of low value	17	1
<b>TOTAL AMOUNT RECOGNISED IN PROFIT OR LOSS</b>	<b>2,352</b>	<b>1,887</b>

119 The cash outflows for leases (payments of lease liabilities and expenses from short-term and low-value leases) totalled €2,031 thousand (2022: €1,764 thousand) in 2023. In addition, the Group reported non-cash additions to rights of use and lease liabilities of €8,966 thousand in 2023 (2022: €2,727 thousand).

## Current assets

### Inventories

120 Inventories are composed of merchandise and advance payments as follows:

	31 Dec 2023 € thou.	31 Dec 2022 € thou.
Merchandise	1,263	815
Advance payments	3,557	3,456
<b>TOTAL</b>	<b>4,820</b>	<b>4,271</b>

### Trade receivables

121 Taking account of impairment, trade receivables are as follows:

	31 Dec 2023 € thou.	31 Dec 2022 € thou.
Trade receivables	30,116	31,946
Provisions for expected loss	-74	-131
<b>TOTAL</b>	<b>30,042</b>	<b>31,815</b>

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

123 The write-downs recognised developed as follows:

	2023 € thou.	2022 € thou.
<b>As at 1 January</b>	131	232
Utilised	-3	-6
Unused amounts reversed	-54	-95
<b>As at 31 December</b>	74	131

The reversal recognised in net profit or loss results from the reduction in the expected bad debt losses on account of lower uncollectible receivables in recent years and from incoming payments for receivables that had been written down individually until 31 December 2021.

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

	31 Dec 2023 € thou.	31 Dec 2022 € thou.
Neither past due nor impaired	24,472	25,454
Past due, not impaired		
< 30 days	4,224	5,413
31 to 60 days	449	418
61 to 90 days	416	170
> 90 days*	481	360
	5,570	6,361
<b>AS AT 31 DECEMBER</b>	<b>30,042</b>	<b>31,815</b>
Of which current receivables	30,042	31,815

\* of which paid by 29 February 2024: €189 thousand (2022: €198 thousand)

### Contract assets/contract liabilities

125 As at 31 December 2023, there were contract assets of €16,011 thousand (2022: €10,999 thousand).

126 Contract liabilities of €13,423 thousand (previous year: €11,867 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 €6.7 million (2022: €16.1 million). IVU usually receives payments from customers on the

basis of a settlement schedule, which is a component of customer contracts.

127 For further disclosures in connection with the contract balances please also see the section "Revenue from contracts with customers" in chapter D.

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

### Other current assets

128 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 2023 € thou.	31 Dec 2022 € thou.
Notice deposits	25,000	25,000
Demand deposits to secure guarantees	463	1,168
Receivables from tax credit (without income tax)	936	1,175
Prepaid expenses	3,023	1,865
Other	652	359
<b>TOTAL</b>	<b>30,074</b>	<b>29,567</b>

### Cash and cash equivalents

129 Cash and cash equivalents nearly exclusively consist of bank balances.

	31 Dec 2023 € thou.	31 Dec 2022 € thou.
Bank balances	25,392	23,048
Cash balances	5	3
<b>TOTAL</b>	<b>25,397</b>	<b>23,051</b>

## Equity

- 130 Please see the statement of changes in consolidated equity for details.
- 131 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 (2022: €17,719,160.00) and consists of 17,719,160 (2022: 17,719,160) no-par value shares.
- 132 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 Executive Board can make use of this authorisation for any legally permissible purpose. In 2022 and 2023, the Executive Board did not make use of the authorisations.
- 133 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.
- 134 Based on this resolution, the Executive Board approved buyback programs for treasury shares on 1 June 2023, which was extended on 7 September 2023. The purpose of the three buyback program was to particularly use the shares to service Executive Board remuneration and employee participation programs. A total of 176,188 shares were repurchased at a total price of €2,552 thousand. This corresponds to 0.99% of the no-par value shares in the share capital of IVU Traffic Technologies AG. The shares were acquired exclusively via the stock exchange by a bank commissioned by the company (XETRA trading).
- 135 From the shares acquired, a total of 49,542 no-par value shares were issued (26 shares with a value of €16.26 each, 40,380 shares with a value of €16.74 each, 3,200 shares with a value of €16.47 each,

5,914 shares with a value of €14.62 each and 22 shares with a value of €12.92 each) for all IVU employees in Germany in the 2023 financial year. As part of their variable remuneration, the members of the Executive Board received 18,713 shares with a value of €16.47 each as well as 92,127 shares with a value of €16.43 each as part of the long-term incentive plan that ended on 31 December 2022. The number of shares issued corresponds to 0.91% of the no-par value shares in the share capital of IVU AG.

- 136 As at 31 December 2023, IVU AG held 273,832 treasury shares. These are deducted from equity at average acquisition cost as a separate item of €4,361 thousand (2022: €4,251 thousand).
- 137 The development of treasury shares for the financial year is therefore as follows:

	2023 shares	2022 shares
Treasury shares as at 1 January	258,026	211,722
Purchased in the financial year	176,188	250,000
Transferred to the Executive Board	-110,840	-15,458
Transferred to employees	-49,542	-57,324
Transfer as part of the acquisition of LBW Optimization GmbH	0	-130,914
<b>TREASURY SHARES AS AT 31 DECEMBER</b>	<b>273,832</b>	<b>258,026</b>

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

	2023 shares	2022 shares
Shares in circulation as at 1 January	17,461,134	17,507,438
Acquisitions of treasury shares	-176,188	-250,000
Transfer of treasury shares	160,382	203,696
<b>SHARES IN CIRCULATION AS AT 31 DECEMBER</b>	<b>17,445,328</b>	<b>17,461,134</b>



## Non-current liabilities

### Pension provisions

139 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.

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

	2023 %	2022 %
Discount rate	3.57	4.21
Salary trend	2.50	2.50
Pension trend	2.00	2.00
Turnover	3.00	3.00

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

141 The net pension expenses are as follows:

	2023 € thou.	2022 € thou.
Service cost	1	2
Interest expense	141	63
<b>EXPENSE FOR THE PERIOD</b>	<b>142</b>	<b>65</b>

142 The following table shows the composition of pension obligations:

	2023 € thou.	2022 € thou.
Present value of pension obligations, 31 Dec	3,741	3,669
Less fair value of plan assets	160	179
<b>PROVISIONS FOR PENSIONS</b>	<b>3,581</b>	<b>3,490</b>

143 The following table shows the development of pension obligations:

	2023 € thou.	2022 € thou.
Present value of pension obligations, 1 Jan	3,669	5,078
Service cost	1	2
Interest expense	149	65
Pension payments	-252	-248
Actuarial gains (losses) from changes in financial assumptions recognised in equity (other income)	208	-1,235
Actuarial gains (losses) from experience adjustments recognised in equity (other income)	-34	7
<b>PRESENT VALUE OF PENSION OBLIGATIONS, 31 DEC</b>	<b>3,741</b>	<b>3,669</b>

144 The following table shows the development of plan assets:

	2023 € thou.	2022 € thou.
Fair value of plan assets, 1 Jan	179	199
Net return on plan assets	0	2
Additions to plan assets	-7	0
Payments from plan assets	-19	-19
Actuarial losses/gains recognised in equity (other income)	7	-3
<b>PLAN ASSETS, 31 DEC</b>	<b>160</b>	<b>179</b>

145 A quantitative sensitivity analysis of the main assumptions as at 31 December 2023 is presented below.

Assumption	Interest sensitivity		Pension trend sensitivity
Scenario	Increase by 0.50%	Decrease by 0.50 %	Increase by 1.00%
Effect on defined benefit obligation (in € thou.)	-165	+ 178	+ 352

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.

146 The average term of defined benefit obligations as at the end of the reporting period is 9.35 years (2022: 9.32 years).

147 The expected return on plan assets is based on a discount factor of 3.57% (2022: 4.21%). No contributions will be paid into the plan in the next twelve months. The plan assets are composed exclusively of cash.

148 The anticipated payment structure for the years 2024 to 2033 is shown below:

<b>Pension payments made</b>	<b>€ thou.</b>
2022	248
2023	252
<b>Expected pension payments</b>	
2024	274
2025	275
2026	274
2027	272
2028	272
2029- 2033	1,289

149 Defined contribution plans exist only in the form of the mandatory contributions by IVU AG to the state pension. Employer contributions of €4,153 thousand (2022: €3,457 thousand) were paid in the reporting year.

## Current liabilities

### Financial liabilities

150 IVU has the following credit facilities:

	<b>Credit facility</b>	<b>Utilisation</b>	<b>Utilisation</b>
	<b>€ thou.</b>	<b>31 Dec 2023</b>	<b>31 Dec 2022</b>
	<b>€ thou.</b>	<b>€ thou.</b>	<b>€ thou.</b>
Monte dei Paschi di Siena	150	0	0

The lines of credit were not utilised in the financial year. Collateral in favour of the banks has not been agreed.

## Provisions

151 Provisions developed as follows:

	<b>As at 1 Jan 2023</b>	<b>Utilised</b>	<b>Unused amounts re-versed</b>	<b>Arising during the year</b>	<b>As at 31 Dec 2023</b>
	<b>€ thou.</b>	<b>€ thou.</b>	<b>€ thou.</b>	<b>€ thou.</b>	<b>€ thou.</b>
Warranty	10,958	988	2,143	646	8,473
Impending loss	267	14	38	68	283
	<b>11,225</b>	<b>1,002</b>	<b>2,181</b>	<b>714</b>	<b>8,756</b>
of which current	10,125				6,704

152 The provisions for warranties relate to warranty risks from completed projects or completed deliveries. The reversals result partly from the expiry of warranty periods and partly from the reduction of project-related utilisation risks. Provision for onerous contracts was recognised for transactions that will make a loss in the future due to cost developments (full cost basis).

## Other current liabilities

153 Other current liabilities are composed as follows:

	<b>31 Dec 2023</b>	<b>31 Dec 2022</b>
	<b>€ thou.</b>	<b>€ thou.</b>
Staff-related liabilities	10,409	10,413
Tax liabilities (sales tax, wage tax)	4,242	3,442
Liabilities from contract risks	1,200	564
Liabilities from outstanding invoices	1,578	2,493
Other	169	172
<b>TOTAL</b>	<b>17,598</b>	<b>17,084</b>

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

## Actual income taxes and deferred taxes<sup>16</sup>

155 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 2023 was 15.1% (2022: 15.1%). The corporation tax rate for the 2022 and 2023 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 2023 financial year is 30.97% (2022: 30.95%).

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

	2023 € thou.	2022* € thou.
<b>Current tax expenses</b>		
Current year and prior periods (expense -, income +)	-4,958	-2,511
<b>Deferred tax income/expense</b>		
Change to tax loss carryforwards	-335	-2,474
Intangible Assets	347	261
Tax-effective goodwill amortisation	-1	-2
Change of right of use	-345	-1,986
Change to long-term order production	-177	472
Change of lease liabilities	440	2,023
Change to pension provisions	-25	-60
Change to other assets	0	0
Change to other provisions	9	-313
	-87	-2,079
<b>EXPENSE - / INCOME + FROM INCOME TAXES</b>	<b>-5,045</b>	<b>-4,590</b>

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

	2023 € thou.	2022* € thou.
IFRS earnings (before taxes)	16,421	14,717
Tax rate	30.97 %	30.95 %
Notional income tax expense	-5,086	-4,554
Off-balance sheet tax additions/re- ductions	-76	-40
Utilisation of tax loss carryforwards	1	7
Permanent differences	0	-49
Tax expense from prior periods**	4	0
Effects of tax rate differences	57	37
At-equity valuation***	58	16
Other	-3	-7
<b>CURRENT TAX EXPENSES / INCOME</b>	<b>-5,045</b>	<b>-4,590</b>

\* Adjustment of comparative figures in accordance with IAS 8.42

\*\* of which: current taxes €4 thousand (2022: €0 thousand),  
deferred taxes €0 thousand (2022: €0 thousand)

\*\*\* reported under Other in the previous year

<sup>16</sup> The comparative figures marked with \* were adjusted in accordance with IAS 8.42. See note 8.

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

	31 Dec 2023 € thou.	Delta 2023	31 Dec 2022* € thou.
<b>Deferred tax assets</b>			
Asset difference from offsetting of assets	2	1	1
Pension provisions	344	47	297
Other provisions	193	9	184
Lease liabilities	5,205	440	4,765
Tax losses carried forward	0	-335	335
	5,744	162	5,582
<b>Deferred tax liabilities</b>			
Other assets	-26	-1	-25
Intangible Assets	-2,171	347	-2,518
Tax-effective goodwill amortisation	-1,741	-1	-1,740
Right of use	-5,007	-345	-4,662
Revenue recognition	-1,289	-177	-1,112
	-10,234	-177	-10,057
<b>Deferred tax assets/liabilities, net</b>	<b>-4,490</b>	<b>-15</b>	<b>-4,475</b>
of which affecting the income situation		-87	
of which equity changes		72	
<b>Carrying amount</b>			
Deferred tax assets	93	2	91
Deferred tax liabilities	-4,583	-17	-4,566

159 As of 31 December 2023, the IVU Group did not have any domestic loss carryforwards. In 2022, there were there were domestic trade tax loss carryforwards of €92 thousand and domestic corporation tax loss carryforwards of €2,033 thousand. There are no significant loss carryforwards abroad.

Deferred tax assets on loss carryforwards amounted to €0 thousand (2022: €335 thousand) as at 31 December 2023.

160 An external tax audit of IVU AG for the years from 2018 to 2020 and an external payroll tax audit for the years from 2019 to 2022 were announced and started in 2023. No significant findings have resulted from this so far.

## D. NOTES TO THE CONSOLIDATED INCOME STATEMENT

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

### Revenue from Contracts with Customers

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

	2023 € thou.	2022 € thou.
Goods/services/works contracts	35,067	34,931
Licences	37,026	34,765
Maintenance/Hosting	50,399	43,538
<b>TOTAL</b>	<b>122,492</b>	<b>113,234</b>

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

163 Of the contracts for implementation projects (for details of contract assets and contract liabilities on the reporting date, see chapter C. - "Contract assets/contract liabilities" section) in place as at 31 December 2023, revenue of €33 million is likely to be realised in subsequent years (estimation for 2022: €33 million), of which €7 million (2022: €9 million) after more than twelve months.

Of the maintenance and hosting contracts in place as at 31 December 2023, revenue of at least €55 million (estimation for 2022: €42 million) is likely to be realised in the 2024 financial year.

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

### Other operating income

164 Other operating income is composed as follows:

	2023 € thou.	2022 € thou.
Government grants	495	680
Income from the reversal of impairment losses	54	95
Exchange rate gains	134	134
Other	68	288
<b>TOTAL</b>	<b>751</b>	<b>1,197</b>



## Cost of materials

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

	2023 € thou.	2022 € thou.
Cost of purchased goods	8,869	10,547
Cost of purchased services	13,244	13,315
<b>TOTAL</b>	<b>22,113</b>	<b>23,862</b>

## Staff costs

- 166 Staff costs distribute as follows:

	2023 € thou.	2022 € thou.
Wages and salaries	57,496	51,913
Social security, post-employment and other employee benefit costs	10,115	8,365
(Of which for pensions)	4,153	3,457
<b>TOTAL</b>	<b>67,611</b>	<b>60,278</b>

## Depreciation and amortisation on assets

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

	2023 € thou.	2022* € thou.
On intangible assets	1,499	1,141
On rights of use	1,835	1,660
On property, plant and equipment	1,201	1,041
<b>TOTAL</b>	<b>4,535</b>	<b>3,842</b>

\*The comparative figures were adjusted in accordance with IAS 8.42. See note 8.

Amortisation of intangible assets in the amount of €1,158 thousand (2022: €868 thousand) is relates to the software capitalised as part of the acquisition of LBW Optimization GmbH.

Depreciation of rights-of-use assets is explained in the section "Long-term rights of use and lease liabilities" in Chapter C.

## Other operating expenses

- 168 Other operating expenses can be grouped as follows:

	2023 € thou.	2022 € thou.
Selling expenses	3,181	2,133
Operating expenses	4,886	3,959
Administrative expenses	3,666	4,294
Other	1,480	1,210
<b>TOTAL</b>	<b>13,213</b>	<b>11,596</b>

Travel activities reached pre-corona pandemic levels and, in addition to the increased attendance at trade fairs, is the reason for the rise in selling expenses. Operating expenses include year-on-year higher licensing and hosting fees as well as a sharp increase in energy costs. Administrative expenses fell year-on-year as a result of lower legal and consulting expenses and external expenses for recruitment. Other expenses include price losses of €204 thousand (previous year: €321 thousand).

## Financial income and expenses

- 169 The financial income results from recurring cash investments and increased thanks to the positive development of interest rates to € 996 thousand (2022: €106 thousand).

- 170 The financial expenses are composed as follows:

	2023 € thou.	2022* € thou.
Interest expense Rights of use	399	163
Financing costs for guarantees	126	121
Interest expense banks	1	10
Other	7	6
<b>TOTAL</b>	<b>533</b>	<b>300</b>

\*The comparative figures were adjusted in accordance with IAS 8.42. See note 8.

## Earnings per share

- 171 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 Chapter C. - section "Equity".

	2023	2022*
Net profit / loss for the period (€ thousand)	11,377	10,127
Number of potentially diluted ordinary shares (thousands)	17,593	17,719
Diluted earnings per share (EUR/share)	0.65 €	0.57 €
Number of circulating weighted shares (thousands)	17,550	17,489
<b>BASIC EARNINGS PER SHARE (EUR/SHARE)</b>	<b>0.65 €</b>	<b>0.58 €</b>

\*The comparative figures were adjusted in accordance with IAS 8.42. See note 8.

- 172 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

- 173 The reported cash and cash equivalents are not subject to any restriction by a third party. Invested

in € thousand	GERMANY		REST OF EUROPE		NON-EUROPE		TOTAL	
	2023	2022*	2023	2022	2023	2022	2023	2022*
Revenue from transactions with external customers	66,866	60,235	52,902	51,142	2,724	1,857	122,492	113,234
Assets	137,875	130,243	14,553	15,209	9	70	152,437	145,522
Net deferred tax assets	2	29	91	62	0	0	93	91
Investment expenditure	1,652	1,216	97	698	0	0	1,749	1,914
Depreciation of non-current assets	4,148	3,476	387	366	0	0	4,535	3,842

\*The comparative figures were adjusted in accordance with IAS 8.42. See note 8.

- 176 IVU develops software solutions for the customer groups of transport operations (buses, trains, ferries) and purchasers (associations, states,

notice deposits with a notice period of at least three months of €25.0 million (2022: €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 2023, a dividend of €0.24 per dividend-bearing share, €4,228 thousand in total, was distributed. The composition of cash and cash equivalents is shown in section C. - "Cash and cash equivalents".

## F. NOTES TO SEGMENT REPORTING

- 174 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

- 175 The IVU Group realised in Germany 54.6%, in Italy, 9.6%, in Switzerland 8.4% and in the Netherlands 6.7% 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.

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 €14.8 million (12.1 % of Group sales revenue) with one customer (the railway group). In the previous year, the IVU Group generated sales totalling € 15.9 million (14.0 % of consolidated sales) with one customer (the railway group).

## G. OTHER DISCLOSURES

### Commitments and contingencies

#### Letters of credit

- 177 As at the end of the reporting period, letters of credit of €11,317 thousand, €271 thousand of which in foreign currency (2022: €10,806 thousand, €271 thousand of which in foreign currency) were assumed by various banks for the IVU Group.

### Employees

- 178 The average number of employees of the IVU Group was 938 in the financial year (2022: 837). The breakdown of employees by function is as follows:

	2023	2022
Project work/sales	432	384
Production/software development	389	350
Administration	117	103
<b>TOTAL</b>	<b>938</b>	<b>837</b>

### Auditor fees

- 179 The auditor's fees recognised as expenses in the financial year amount to €188 thousand for audits of financial statements (2022: €185 thousand) and €0 thousand for other services (2022: €20 thousand).

### Related party disclosures

- 180 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

- 181 The joint venture EBS is still considered a related party for the reporting year. Please refer to the statements on events after the reporting date. There are no other related parties.

### Related persons

#### Executive Board members of IVU AG

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

#### Members of the Supervisory Board of IVU AG

- Prof. Dr. Herbert Sonntag, Berlin  
(Chairman of the Supervisory Board and the General Committee, Member of the Audit Committee)  
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., Wildau,  
Representative for Brandenburg of the Allianz pro Schiene e.V., Berlin,  
Honorary Professor at German-Kazakh University, Almaty/Kazakhstan,  
Visiting Professor at Georgian Technical University, Tbilisi/Georgia,  
Executive Board of the IVU-Stiftung für Mensch, Natur und Klimaschutz (Foundation for People, Nature and Climate Protection), Berlin.
- Ute Witt, Potsdam  
(Deputy Chairwoman of the Supervisory Board and Chairwoman of the Audit Committee)  
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" sub-committee of the DIHK, Berlin,  
Member of the Bundesbank advisory committee at the head office in Berlin and Brandenburg.

- 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 Group, Hamburg.
- Prof. Dr. Barbara Lenz, Berlin  
Director of the Institute of Transport Research  
(ret.) at the German Aerospace Centre, Berlin,  
Professor for Traffic Geography (ret.) at Hum-  
boldt University of Berlin,  
Member of the Supervisory Board and the Audit  
Comitee of Berliner Verkehrsbetriebe (BVG),  
Berlin,  
Member of acatech (National Academy of Sci-  
ence and Engineering) – Deutsche Akademie der  
Technikwissenschaften e.V., Munich,  
Member of the scientific advisory committee of  
the Verband Deutscher Verkehrsunternehmen  
(VDV – Association of German Transport Compa-  
nies),  
Member of the European Sounding Board on In-  
novation (European Commission).
- Benedikt Woelki, Berlin  
Customer Service Rail team leader at IVU Traffic  
Technologies AG, Berlin.
- Axel Zimmermann, Düren  
(Member of the Audit Committee)  
Quality manager at IVU Traffic Technologies AG,  
Aachen.

### Related party transactions

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

## Remuneration of the Executive Board and the Supervisory Board

- 183 The Executive Board of IVU AG received remuneration of €2,369 thousand (2022: €2,087 thousand) in the 2023 financial year. The remuneration of the Executive Board comprises a fixed (€977 thousand) and a variable portion (€1,392 thousand).

The variable portion amounted to 59% (2022: 58%) of total remuneration in the year under review.

- 184 As part of a long-term incentive plan, 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 IVU's share price developing positively, taking into account the performance of the DAXsector Software (WKN 966037) stock market index for software companies, and the specified ESG (Environment, Social, Government) targets being achieved. The performance targets for achieving the ESG criteria for sustainable corporate action are based on employee satisfaction derived from the "Great Place To Work" (GPTW) survey and the proportion of women in IVU's management team. The vesting period for the programme began on 1 January 2023 and ends on 31 December 2026. The remuneration of the individual members of the Executive Board under the share-based remuneration agreements is capped at 400% of the annual fixed remuneration.

As part of the long-term incentive plan that ended on 31 December 2022, the members of the Executive Board received shares in the company as a further variable remuneration component. Depending on the positive performance of the company and a certain target price in the fourth quarter of 2022, a total of 92,127 shares were transferred to the members of the Executive Board.

In the financial year, personnel expenses of € 168 thousand (2022: € 339 thousand) were recognised as a variable remuneration component for the long-term incentive plan for the members of the Executive Board in addition to the above remuneration figure. The total remuneration in accordance with Section 314 No. 6 a) HGB amounts to € 2,537 thousand (2022: € 2,426 thousand). All remuneration in the financial year was due in the short term. For further explanations, please refer to chapter B. - Section "Share-based payment agreements".

- 185 Pension provisions of €1,773 thousand (2022: €1,764 thousand) were reported for former members of the Executive Board. Furthermore, pension payments of €151 thousand (2022: €151 thousand) were made for former members of the Executive Board.



- 186 The Supervisory Board received remuneration of €194 thousand in 2023 (2022: €194 thousand). The remuneration of the Supervisory Board comprises a fixed basic remuneration and a meeting fee for ordinary Supervisory Board meetings.
- 187 The shareholdings of the members of the Executive Board and the Supervisory Board are as follows:

	Shares 31 Dec 2023	Shares 31 Dec 2022
<b>Executive Board</b>		
Martin Müller-Elschner	292,113	245,967
Matthias Rust	58,324	26,290
Leon Struijk	63,000	30,000
<b>Supervisory Board</b>		
Prof. Dr. Herbert Sonntag	856,000	856,000
Prof. Dr. Barbara Lenz	1,500	1,500
Benedikt Woelki	391	331
Axel Zimmermann	1,242	1,082

## Supplementary Report

- 188 IVU AG, Berlin, concluded as the buyer a share purchase agreement for the purchase of 26% of the shares in EBS ebus solutions GmbH (EBS), Aachen, from ebusplan GmbH as the seller with effect from 2 January 2024. Further details on the acquisition are included in the section “Non-current assets” in chapter C.

## Disclosures on the German Corporate Governance Code

- 189 The 2024 declaration of compliance was issued by the Executive Board and the Supervisory Board on 15 February 2024 and can be accessed by shareholders at all times on the IVU AG homepage ([www.ivu.com/investors/corporate-governance-en](http://www.ivu.com/investors/corporate-governance-en)) under Investor Relations.

### The Executive Board

Berlin, 19 March 2024



Martin Müller-Elschner



Matthias Rust



Leon Struijk



# CONSOLIDATED FIXED-ASSETS SCHEDULE

## DEVELOPMENT OF INTANGIBLE ASSETS, PROPERTY, PLANT AND EQUIPMENT, FINANCIAL ASSETS AND RIGHT-OF-USE ASSETS 2023

	HISTORICAL ACQUISITION COSTS					As at 31 Dec 2023 € thou.
	As at 1 Jan 2023 € thou.	Change in consolidation scope € thou.	Addition € thou.	Transfer € thou.	Disposal € thou.	
<b>I. Intangible assets</b>						
1. Industrial property rights and licenses, software	18,033	0	483	0	65	18,451
2. Goodwill	21,549	0	0	0	0	21,549
3. Primary intangible assets	15,503	0	0	0	0	15,503
	55,085	0	483	0	65	55,503
<b>II. Property</b>						
1. Other equipment, operating and office equipment	11,401	0	1,266	1	509	12,159
2. Advance payments and assets under construction	1	0	0	-1	0	0
	11,402	0	1,266	0	509	12,159
<b>III. Financial assets</b>						
Financial assets recognised using the equity method	650	0	187	0	0	837
	650	0	187	0	0	837
<b>IV. Rights of use*</b>						
1. Real estate	18,497	0	2,866	0	0	21,363
2. Other equipment, operating and office equipment	585	0	143	0	92	636
	19,082	0	3,009	0	92	21,999
	<b>86,219</b>	<b>0</b>	<b>4,945</b>	<b>0</b>	<b>666</b>	<b>90,498</b>

\* The comparative figures were adjusted in accordance with IAS 8.42. See note 8.

DEPRECIATION					RESIDUAL BOOK VALUES		
As at 1 Jan 2023	Change in consolidation scope	Addition	Currency dif- ference	Disposal	As at 31 Dec 2023	As at 31 Dec 2023	As at 31 Dec 2022
€ thou.	€ thou.	€ thou.	€ thou.	€ thou.	€ thou.	€ thou.	€ thou.
8,795	0	1,499	-2	65	10,227	8,224	9,238
3,277	0	0	0	0	3,277	18,272	18,272
15,503	0	0	0	0	15,503	0	0
27,575	0	1,499	-2	65	29,007	26,496	27,510
9,552	0	1,201	0	509	10,244	1,915	1,849
0	0	0	0	0	0	0	1
9,552	0	1,201	0	509	10,244	1,915	1,850
0	0	0	0	0	0	837	650
0	0	0	0	0	0	837	650
3,574	0	1,660	0	0	5,234	16,129	14,923
217	0	175	0	92	300	336	368
3,791	0	1,835	0	92	5,534	16,465	15,291
<b>40,918</b>	<b>0</b>	<b>4,535</b>	<b>-2</b>	<b>666</b>	<b>44,785</b>	<b>45,713</b>	<b>45,301</b>



# CONSOLIDATED FIXED-ASSETS SCHEDULE

## DEVELOPMENT OF INTANGIBLE ASSETS, PROPERTY, PLANT AND EQUIPMENT, FINANCIAL ASSETS AND RIGHT-OF-USE ASSETS 2022

	HISTORICAL ACQUISITION COSTS					As at 31 Dec 2022 € thou.
	As at 1 Jan 2022 € thou.	change cons. € thou.	Addition € thou.	Reclas- sifica- tion € thou.	Disposal € thou.	
<b>I. Intangible assets</b>						
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
<b>II. Property</b>						
2. Other equipment, operating and office equipment	11,084	136	1,229	7	1,055	11,401
3. Advance payments and assets under construction	7	0	1	-7	0	1
	11,091	136	1,230	0	1,055	11,402
<b>III. Financial assets</b>						
Financial assets recognised using the equity method	347	0	303	0	0	650
	347	0	303	0	0	650
<b>IV. Right of use*</b>						
1. Real estate	12,306	0	8,394	0	2,203	18,497
2. Other equipment, operating and office equipment	364	0	383	0	162	585
	12,670	0	8,777	0	2,365	19,082
	<b>62,387</b>	<b>149</b>	<b>27,304</b>	<b>0</b>	<b>3,621</b>	<b>86,219</b>

\*The comparative figures were adjusted in accordance with IAS 8.42. See note 8.

DEPRECIATION					RESIDUAL BOOK VALUES		
As at					As at	As at	
1 Jan 2022	change cons.	Addition	Currency dif- ference	Disposal	31 Dec 2022	31 Dec 2022	31 Dec 2021
€ thou.	€ thou.	€ thou.	€ thou.	€ thou.	€ thou.	€ thou.	€ thou.
7,852	3	1,141	0	201	8,795	9,238	131
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	11,480
9,494	57	1,041	0	1,040	9,552	1,849	1,216
0	0	0	0	0	0	1	4
9,494	57	1,041	0	1,040	9,552	1,850	1,237
0	0	0	0	0	0	650	0
0	0	0	0	0	0	650	0
3,746	0	1,497	-3	1,666	3,574	14,923	6,966
216	0	163	0	162	217	368	232
3,962	0	1,660	-3	1,828	3,791	15,291	7,198
<b>40,088</b>	<b>60</b>	<b>3,842</b>	<b>-3</b>	<b>3,069</b>	<b>40,918</b>	<b>45,301</b>	<b>19,915</b>

# AUDITOR'S REPORT

## Reproduction of the audit opinion

We have issued the following unqualified audit opinion, signed in Berlin on 20 March 2024, on the consolidated financial statements and the Group management report of IVU Traffic Technologies AG, Berlin, for the financial year from January 1 2023 to December 31 2023 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 combined 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 at December 31, 2023, and the consolidated statement of comprehensive income, consolidated statement of changes in equity and consolidated statement of cash flows for the financial year from January 1, 2023 to December 31, 2023, and notes to the consolidated financial statements, including a summary of significant accounting policies.

In addition, we have audited the combined management report (report on the position of the company and of the group) of IVU Traffic Technologies AG for the financial year from January 1, 2023 to December 31, 2023. In accordance with the German legal requirements, we have not audited the content of those parts

of the combined 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 the IFRSs as adopted by the EU, and the additional requirements of German commercial law pursuant to § 315e (1) HGB [Handelsgesetzbuch: German Commercial Code] and, in compliance with these requirements, with the exception of these effects, give a true and fair view of the assets, liabilities, and financial position of the group as at December 31, 2023, and of its financial performance for the financial year from January 1, 2023 to December 31, 2023, and
- the accompanying combined management report as a whole provides an appropriate view of the group's position. In all material respects, with the exception of these effects, this combined 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 combined management report listed in section "OTHER INFORMATION".

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

#### Basis for the audit opinions

We conducted our audit of the consolidated financial statements and of the combined management report in accordance with § 317 HGB and the EU Audit Regulation (No. 537/2014, referred to subsequently as "EU Audit Regulation") and in compliance with German Generally Accepted Standards for Financial Statement Audits promulgated by the Institut der Wirtschaftsprüfer [Institute of Public Auditors in Germany] (IDW). Our responsibilities under those

requirements and principles are further described in the “Auditor’s Responsibilities for the Audit of the Consolidated Financial Statements and of the Combined management report” section of our auditor’s report. We are independent of the group entities in accordance with the requirements of European law and German commercial and professional law, and we have fulfilled our other German professional responsibilities in accordance with these requirements.

In addition, in accordance with Article 10 (2) letter (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 opinions on the consolidated financial statements and on the combined 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 financial year from January 1, 2023 to December 31, 2023. These matters were addressed in the context of our audit of the consolidated financial statements as a whole, and in forming our audit opinion thereon; we do not provide a separate audit opinion on these matters.

We have identified the following matters as key audit matters to be disclosed in our auditor’s report:

### **REVENUE RECOGNITION**

#### **Matter**

IVU Traffic Technologies AG reports revenues of EUR 122.5 million in the consolidated financial statements as of December 31, 2023. The revenues result from the sale and provision of software, the delivery of hardware, the provision of maintenance and hosting.

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 long—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 are responsible for the other information. The other information comprises:

- the combined non-financial statement contained in section C of the combined management report
- the separately published (group) corporate governance statement referred to in section F of the combined management report
- the disclosures extraneous to the combined management report contained marked as unaudited in Section E, subsection Risk Management and Internal Control System of the combined management report
- the other parts of the annual report, except for the audited financial statements and combined management report as well as our auditor's report

Our audit opinions on the consolidated financial statements and on the combined management report do not cover the other information, and consequently we do not express an opinion or any other form of assurance conclusion thereon.

In connection with our audit, our responsibility is to read the other information and thereby acknowledge whether the other information

- is materially inconsistent with the consolidated financial statements, with the combined management report, or our knowledge obtained in the audit or
- otherwise appears to be materially misstated.

If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact. 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 commercial 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 also have the responsibility for disclosing, as applicable, matters related to going concern. In addition, they are responsible for financial reporting based on the going concern basis of accounting 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 combined 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 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 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 combined management report.

## AUDITOR'S RESPONSIBILITY FOR THE AUDIT OF THE CONSOLIDATED FINANCIAL STATEMENTS AND THE GROUP MANAGEMENT REPORT

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and whether the combined 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 the German legal requirements and appropriately presents the opportunities and risks of future development, as well as to issue an auditor's report that includes our opinions on the consolidated financial statements and on the combined 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) 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 combined 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 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 the risk of not detecting a material misstatement resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal controls.
- 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 combined 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 combined management report or, if such disclosures are inadequate, to modify our respective audit opinions. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the group to cease to be able to continue as a going concern.
- evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements present the underlying transactions and events in a manner that the consolidated financial statements give a true and fair view of the assets, liabilities, financial position and financial performance of the group in compliance with IFRSs as adopted by the EU and the additional requirements of German commercial law pursuant to § 315e (1) HGB.
- obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the group to express audit opinions on the consolidated financial statements and on the combined 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 combined 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 combined 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 actions taken or safeguards applied to eliminate independence threats.

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 on the Electronic RENDERING of the Annual Financial Statements and the COMBINED Management Report, Prepared for Publication Purposes in Accordance with § 317 (3A) HGB

#### Assurance opinion

We have performed assurance work in accordance with § 317 (3a) HGB to obtain reasonable assurance as to whether the rendering of the annual financial statements and the combined management report (hereinafter the "ESEF documents") contained in the electronic file "IVU\_AG\_KA+zLB\_ESEF-2023-12-31" 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 assurance work extends only to the conversion of the information contained in the annual financial statements and the combined management report into the ESEF format and therefore relates neither to the information contained within these renderings nor to any other information contained in the file identified above.

In our opinion, the rendering of the annual financial statements and the combined management report contained in the electronic file identified above and prepared for publication purposes complies in all material respects with the requirements of § 328 (1) HGB for the electronic re-ported format. Beyond this assurance opinion and our audit opinion on the accompanying annual financial statements and the accompanying combined management report for the financial year from January 1, 2023 to December 31, 2023 contained in the "Report on the audit of the annual financial statements and of the combined management re-port" above, we do not express any assurance opinion on the information contained within these renderings or on the other information contained in the file identified above.

#### Basis for the assurance opinion

We conducted our assurance work on the rendering of the annual financial statements and the combined management report contained in the file identified above in accordance with § 317 (3a) HGB and the IDW Assurance Standard: Assurance Work on the Electronic Rendering of Financial Statements and Management Reports, Prepared for Publication Purposes in Accordance with § 317 (3a) HGB (IDW AsS 410 [06.2022]). Our responsibility in accordance therewith is further described in the "Auditor's Responsibilities for the Assurance Work on the ESEF Documents" section. Our audit firm has applied the requirements of the IDW Quality Management Standards, which implement the IAASB's International Standards on Quality Management.

#### 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 with the electronic renderings of the annual financial

statements and the combined management report in accordance with § 328 (1) sentence 4 No. 1 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 have considered 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 for the electronic reporting format.

The supervisory board is responsible for overseeing the process for 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. We exercise professional judgment and maintain professional skepticism throughout the assurance work. 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 rendering with content equivalent to the audited annual financial statements and to the audited combined 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.

## **FURTHER INFORMATION PURSUANT TO ARTICLE 10 OF THE EU AUDIT REGULATION**

We were elected as group auditor by the consolidated general meeting on May 25, 2023. We were engaged by the supervisory board on December 14, 2023. We have been the group auditor of the IVU Traffic Technologies AG without interruption since the financial year 2021.

We declare that the audit opinions expressed in this auditor's report are consistent with the additional report to the audit committee pursuant to Article 11 of the EU Audit Regulation (long-form audit report).

## **OTHER MATTERS - USE OF THE AUDIT OPINION**

Our auditor's report must always be read together with the audited annual financial statements and the audited combined management report as well as the assured ESEF documents. The annual financial statements and the combined management report converted to the ESEF format — including the versions to be published in the German Federal Gazette — are merely electronic renderings of the audited annual financial statements and the audited combined 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.

## **GERMAN PUBLIC AUDITOR RESPONSIBLE FOR THE ENGAGEMENT**

The German Public Auditor responsible for the engagement is Andreas Blohm.

Berlin, March 20, 2024

**BDO AG**  
**Wirtschaftsprüfungsgesellschaft**

Sartori  
Public Auditor

Blohm  
Public Auditor





## FINANCIAL CALENDAR 2024

### THURSDAY, 21 MARCH 2024

Annual Report 2023

### TUESDAY, 28 MAY 2024

Quarterly report as at 31 March

### WEDNESDAY, 29 MAY 2024

Annual General Meeting

### THURSDAY, 29 AUGUST 2024

Half-year report as at 30 June

### THURSDAY, 21 NOVEMBER 2024

Quarterly report as at 30 September

## BOARDS

### Supervisory Board

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

### Executive Board

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

### Advisory Board

- Prof. Dr. Manfred Boltze, Darmstadt
- Alain Flausch, Brussels (BE)
- Bert Meerstadt, Bussum (NL)
- Prof. Dr. Adolf Müller-Hellmann, Cologne
- Prof. Dr. Ronald Pörner, Berlin
- Volker Sparmann, Hofheim am Taunus
- Prof. Dr. Birgit Milius, Berlin
- Günter Steinbauer, Vienna (AT)

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## IMPRINT

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