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Add value.  
Inspire trust.

# ANNUAL REPORT 2019

# THE GROUP AT A GLANCE 2019

## Key figures

01

IN € MILLION	2019	2018	2017	2016	2015
	IFRS	IFRS	IFRS	IFRS	IFRS
<b>Business development</b>					
Revenue	2,590.1	2,498.5	2,427.6	2,343.2	2,222.0
Personnel expenses	1,572.9	1,510.0	1,464.1	1,421.2	1,328.6
Cash flow from operating activities	315.0	208.2	258.3	241.5	221.2
Free cash flow <sup>1</sup>	197.3	105.2	169.2	164.1	140.8
Capital expenditures	126.0	100.6	87.1	86.6	80.4
EBIT <sup>2</sup>	202.8	105.5	201.3	198.8	162.4
Income before taxes	184.4	94.6	190.2	182.6	144.4
Consolidated net income	132.6	48.2	138.8	130.5	114.0
EVA (Economic Value Added)	64.0	12.9	80.7	80.9	61.0
EBIT margin IN %	7.8	4.2	8.3	8.5	7.3
EBIT margin, adjusted IN %	8.7	8.9	8.9	8.6	8.5
EBT margin IN %	7.1	3.8	7.8	7.8	6.5
EBT margin, adjusted IN %	8.2	8.5	8.5	7.9	7.7
<b>Assets</b>					
Non-current assets	1,585.0	1,203.5	1,193.7	1,222.4	1,147.5
Current assets	855.2	868.3	846.9	791.4	722.3
Balance sheet total	2,440.2	2,071.8	2,040.6	2,013.8	1,869.8
Equity ratio <sup>3</sup> IN %	37.2	38.8	38.9	31.9	29.8
<b>Employees (annual average)</b>					
Full-time equivalents	23,024	22,424	22,117	21,738	20,228
<b>Headcount</b>					
As of December 31	25,015	24,529	24,231	23,997	22,363

1 \_ Free cash flow: cash flow from operating activities less cash paid for investments in intangible assets, property, plant and equipment and investment property.

2 \_ EBIT: Earnings before interest, before other financial result and before income tax, but after income from participations.

3 \_ Due to the first time application of IFRS 15 "Revenue from Contracts with Customers" in 2018 the year 2017 figure is restated.

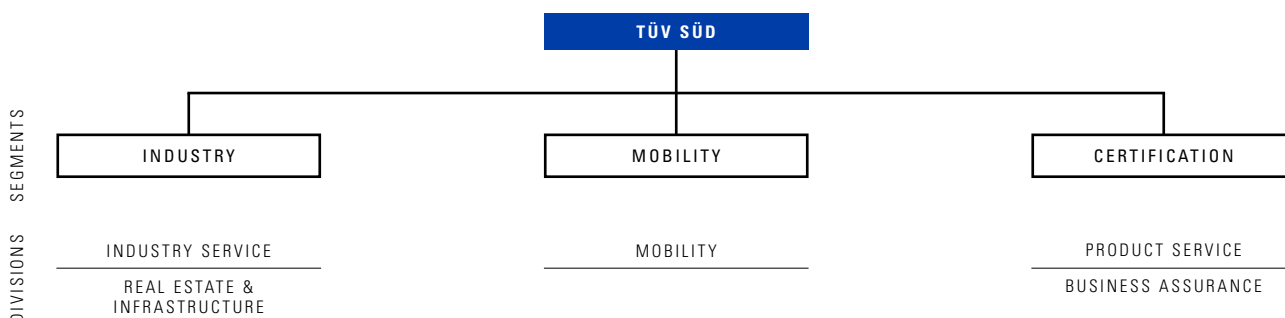
€ **2,590.1** MILLION  
REVENUE

€ **126.0** MILLION  
CAPITAL EXPENDITURES

€ **184.4** MILLION  
INCOME BEFORE TAXES

## TÜV SÜD structure

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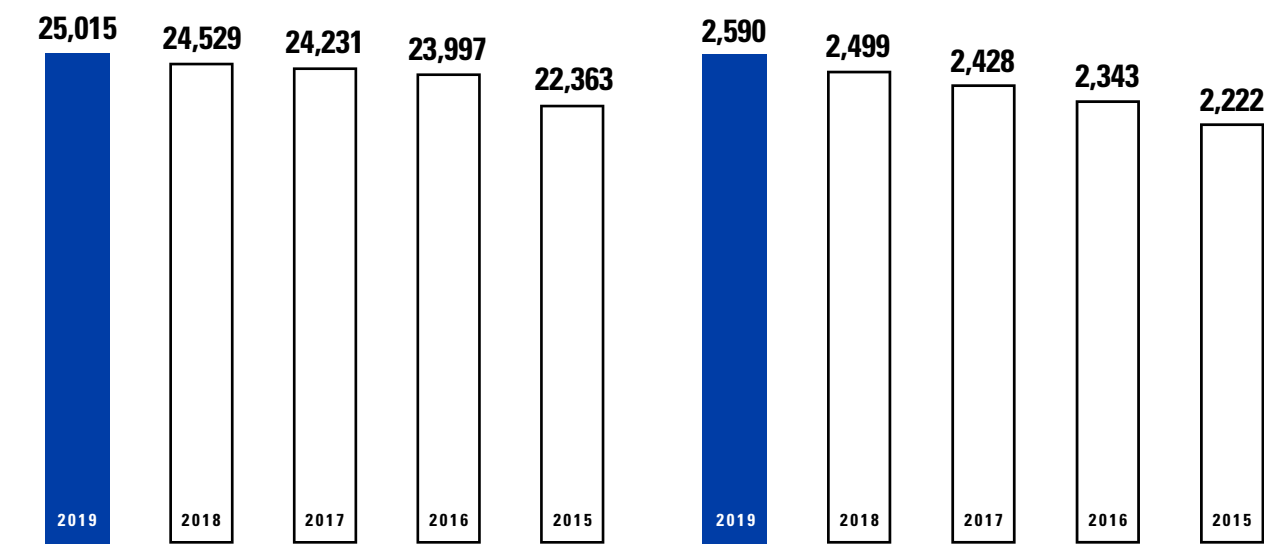
## Headcount

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## Revenue

IN € MILLION

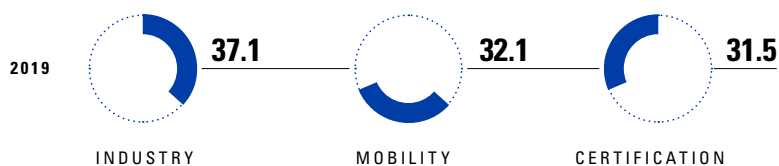
ili 03



## Revenue by segment<sup>1</sup>

ili 04

IN %



1 \_ Without OTHER and reconciliation.



# ADVANCE.

■ **TÜV SÜD** stands for  
"Add value. Inspire trust."

More than **25,000** people all over the world ensure a **safe and sustainable future** and **use their solutions** to create measurable added value for society and their customers – in existing fields of technology as well as for technological innovations and in the digital world. ■

**In this way** TÜV SÜD **protects** people, the **environment** and assets against technology-related risks and enables progress. ■

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MANAGEMENT

&

SUPERVISORY  
BOARDS





## **MANAGEMENT AND SUPERVISORY BOARDS**

- 06** Message from the Board of Management
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- 12** Supervisory Board report
- 16** Boards of the group



## Ladies and Gentlemen,

2019 was a successful year for TÜV SÜD from a business perspective. Our sales revenue rose to approximately EUR 2.6 billion, equating to growth of 3.7%. We held our own in a tough business environment, generating EBIT of close to EUR 203 million and an EBIT margin of 7.8%. By the end of 2019 our company employed over 25,000 people in more than 1,000 locations across the world.

Unfortunately, 2019 will be remembered for an incident in late January, which has occupied us, as a Board of Management, ever since. On January 25, 2019, a tailings dam at an iron-ore mine in Brazil tragically collapsed, causing a mud slide which left more than 270 people dead. Some months before this tragic incident, our Brazilian subsidiary, TÜV SÜD Bureau de Projetos e Consultoria Ltda., which we had acquired in 2013, had completed some inspections at the dam on behalf of the mine operator.

Today, over a year after the dam collapsed, the cause of the tragedy is still unclear. Technical analysis and legal investigations are ongoing. TÜV SÜD is still very much interested in clarifying the facts of the dam breach; we continue to offer our cooperation to the responsible authorities, both in Germany and Brazil.

Our corporate slogan, “Add value. Inspire trust.”, illustrates that trust is at the very core of what we do. People need to trust in our independence, expertise and impartiality. By sustainable actions – and, if necessary, refusing customer requests that are not in compliance with our Code of Ethics – we strengthen the trust in TÜV SÜD, protect society and the environment from technology-related risks, and thereby consolidate our role in the future.

Our future role in enabling a safe and sustainable world, is the central goal of our new strategy, “The Next Level. Together.”, which we developed in 2018 in a process that integrated all our employees, globally. By working together, we will propel our company to “the next level” or, in line with the title of this Annual Report: “advance.”

We made investments of over EUR 125 million in 2019. This translates to a very powerful signal as to our commitment to the future. Digitalization and future mobility continue to be two areas of development. We have made investments in cutting-edge IT systems and testing software, while expanding our digital training footprint. Our state-of-the-art NEV testing laboratory for electric vehicle batteries in China started operations in late 2019. Further expansions of similar test facilities in Germany, Asia and the USA are in the pipeline. In Heimsheim, Baden-Wuerttemberg, Germany, a new laboratory for assessing the environmental standards of petrol and diesel engine vehicles, hybrid-electric vehicles (HEVs) and fully electric vehicles (EVs) will be completed by the fall of 2020.

TÜV SÜD is investing in our core business, which will see the technical upgrading of our motor vehicle inspection services in Germany thereby strengthening our conventional inspection business. Likewise, our new center of excellence for subsea pipelines in Scotland started operations last year and the inauguration of our new Asia headquarters in Singapore is scheduled for the Summer of 2020.

... for the

NEXT  
LEVEL



ISHAN PALIT

AXEL STEPKEN

MATTHIAS J. RAPP



Our company is fully committed to protecting people, the environment, and assets from technology-related risks. The topic of cyber security is a common thread across all areas of activity. As an active member of the “Charter of Trust,” an international alliance aimed at improving security in the digital domain, we are actively contributing to this important social topic and extending the public discussion surrounding it.

At TÜV SÜD we are guided by the principles of independence, impartiality, quality, and expertise. Our extensive code of conduct on quality and compliance is an integral component of our corporate culture. Our employees receive regular training in this domain, and compliance is continuously and independently verified. We are committed to fostering diversity and treat each other with tolerance and respect. By investing in training of our people, our most important asset, we ensure our company’s future and provide a solid foundation for our values and for our high technical standards to support cutting-edge technical innovation.

COVID-19 has come to dominate 2020, and TÜV SÜD is not immune from the consequences of the Pandemic. Governments in many countries have implemented wide reaching restrictions on public activities and these have impacted the global economy. We at TÜV SÜD are committed to doing everything we can to protect our employees, our families and clients alike. Concurrently, we are taking active steps to limit the financial impact on our business and steer the company safely through these troubled times. We are a financially healthy company and are well equipped to manage the economic consequences of the Pandemic.

At TÜV SÜD we are proud of how we are making an active contribution to relieving the consequences of this crisis and helping to improve people’s lives. We are testing and approving medical equipment, testing and maintaining emergency vehicles, and certifying food hygiene at a time when the world needs our expertise and knowledge. We remain ready to help wherever and whenever called upon.

Working closely with all our employees around the world, we help create a safe and sustainable society. This is our reason for existence.

Munich, March 26, 2020  
The Board of Management of TÜV SÜD AG



**PROF. DR.-ING. AXEL STEPKEN**  
Chairman of the Board of Management

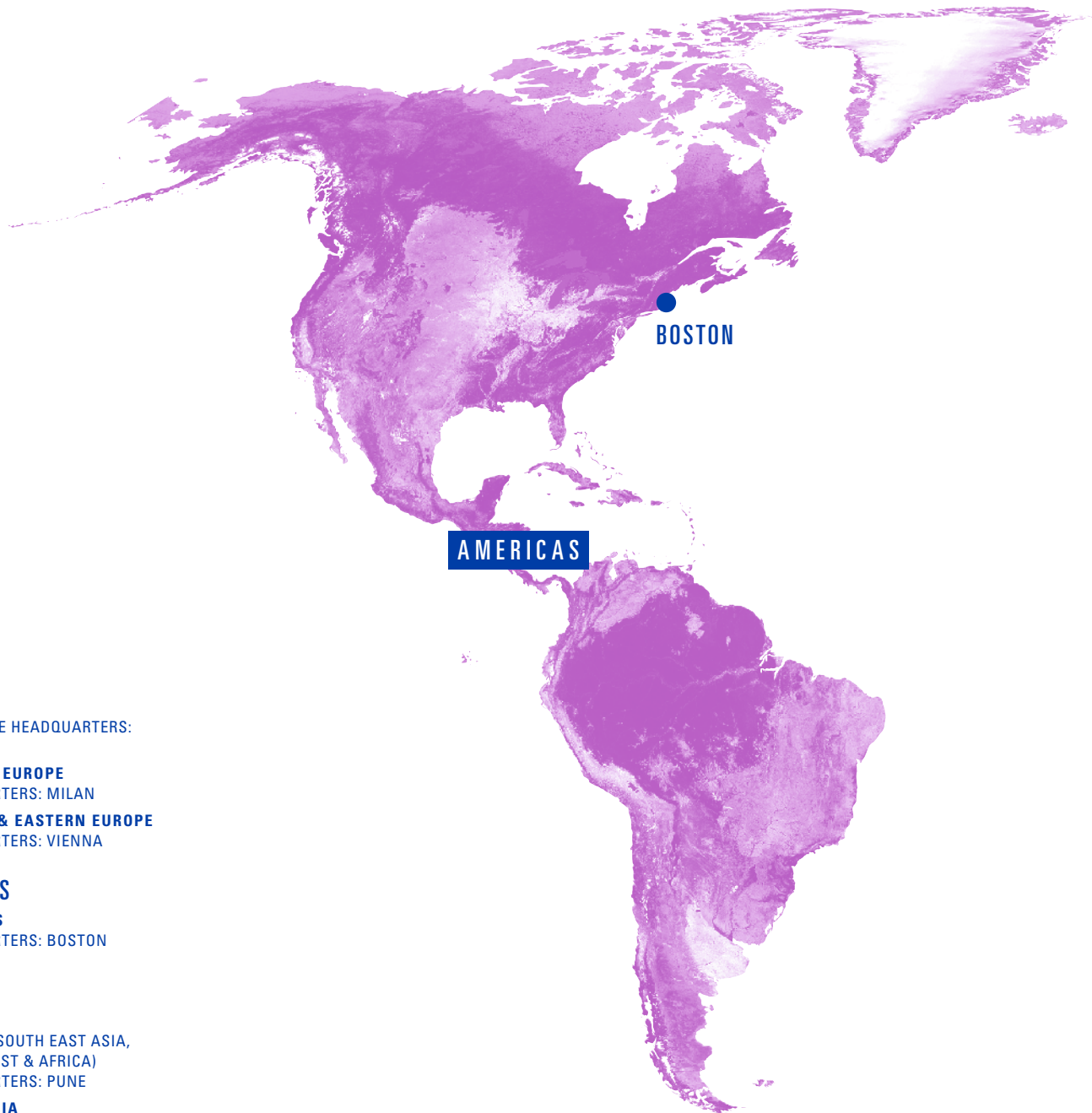


**ISHAN PALIT**  
Member of the Board of Management



**DR. MATTHIAS J. RAPP**  
Member of the Board of Management

# ON SITE WORLDWIDE



## EUROPE

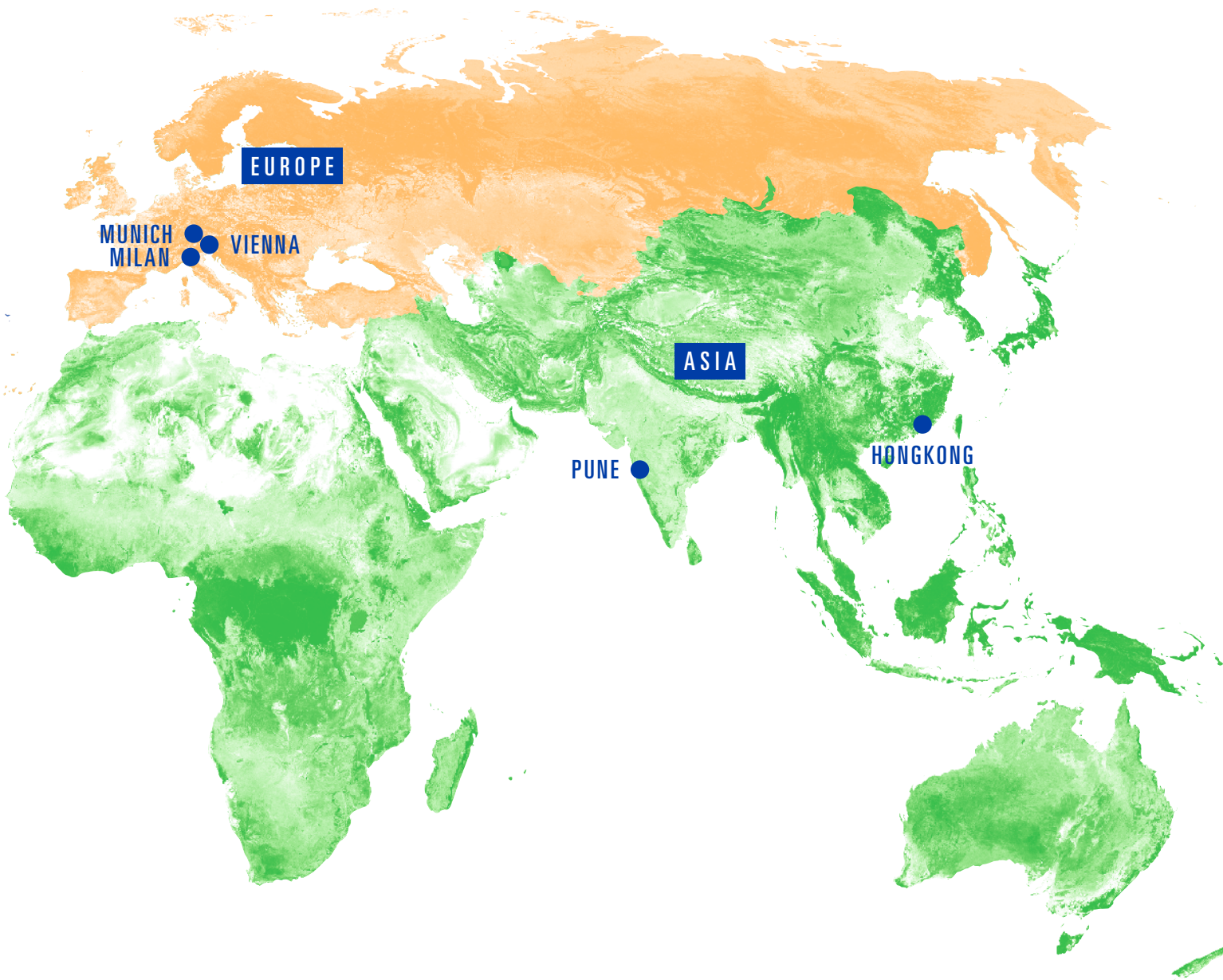
- **GERMANY**  
CORPORATE HEADQUARTERS:  
MUNICH
- **WESTERN EUROPE**  
HEADQUARTERS: MILAN
- **CENTRAL & EASTERN EUROPE**  
HEADQUARTERS: VIENNA

## AMERICAS

- **AMERICAS**  
HEADQUARTERS: BOSTON

## ASIA

- **ASMEA**  
(SOUTH & SOUTH EAST ASIA,  
MIDDLE EAST & AFRICA)  
HEADQUARTERS: PUNE
- **NORTH ASIA**  
HEADQUARTERS: HONGKONG





**PROF. DR.-ING.**  
**HANS-JÖRG BULLINGER**



# SUPERVISORY BOARD REPORT

## Ladies and Gentlemen,

2019 was not an easy year for TÜV SÜD. The impact of the dam collapse in Brazil in January 2019 was also a matter of great concern for the Supervisory Board. It is supporting the Board of Management in dealing with this accident and has encouraged them to carry out a complete and thorough investigation of the complex technical issues that led to the dam collapse. We extend our deepest sympathies to the families of the victims of this tragic accident.

A special committee has been set up to provide support both internally and externally in dealing with the accident in Brazil. Five members of the Supervisory Board sit on this committee. The special committee receives advice from independent technical experts and lawyers. At every meeting of the Supervisory Board, the special committee provided a detailed report on the current status of the investigations and the effect of the measures that had been taken.

In the reporting year, the Supervisory Board performed the tasks required of it by law and the articles of incorporation and bylaws. It supported and monitored the Board of Management's stewardship of the company and offered advice on the strategic development of the TÜV SÜD Group as well as on significant current measures.

The Board of Management regularly provided the Supervisory Board with comprehensive and timely written and oral reports on the general situation of the TÜV SÜD Group, current business development and business planning. The Supervisory Board also obtained detailed information regarding strategic direction and TÜV SÜD's risk situation, in particular as a consequence of the dam collapse in Brazil. The flow of information was supplemented by a half-year report and regular reporting on the financial performance and position. Variances from planning and the three forecasts were explained to the Supervisory Board in detail.

At the four ordinary meetings held in 2019, the Supervisory Board discussed topics including the 2018 separate and consolidated financial statements, the operationalization of the Group's 2025 strategy and planning for 2020. Corporate transactions and matters relating to the TÜV SÜD Foundation were also addressed. In the quarterly reporting, the Supervisory Board was also informed about the development and financial situation of TÜV SÜD Pension Trust.

In addition, in the reporting year the Supervisory Board gathered information on current developments within the company in three conference calls.

One-on-one meetings were also held on a regular basis between the Chairman of the Supervisory Board and the Chairman of the Board of Management, the key findings of which were reported by the Chairman to the Supervisory Board. This ensured that the Supervisory Board was always kept informed in detail about the company's situation and plans.

The audit committee met five times in 2019. The topics it addressed included the 2018 financial statements, the half-year report as of June 30, 2019, preparations for the Group audit, the impact of lease accounting, the audit focus areas and the independence of the auditor. The internal audit findings for 2019, the effectiveness of the internal control system and further internal audit planning were also discussed. The audit committee also commissioned an audit of the appropriateness of the risk management system pursuant to IDW AuS 981. Other topics for the audit committee included acquisitions and divestitures, planned investments as well as TÜV SÜD Pension Trust's investment and hedging strategy. In addition, it also dealt with the risks stemming, inter alia, from the dam collapse in Brazil and the ongoing legal dispute regarding pensions in Germany.

The personnel committee met twice in the reporting year to discuss objective matters relating to the Board of Management.

The separate financial statements of TÜV SÜD AG, the consolidated financial statements and the combined management report were audited by KPMG AG Wirtschaftsprüfungsgesellschaft, Munich, who issued an unqualified independent auditor's report. These documents and the audit reports prepared by the auditors were available to all members of the Supervisory Board. At its meeting on March 18, 2020, the audit committee initially discussed and reviewed these documents.

The Chairperson of the audit committee presented a report at the Supervisory Board meeting to discuss the financial statements on March 26, 2020. The auditor attended both meetings and reported on the material findings of their audit, providing detailed answers to the questions from the members of the Supervisory Board. In light of current events, the Board of Management also informed the Supervisory Board at this meeting of the challenges posed by and the impact of the coronavirus pandemic for TÜV SÜD along with the measures taken in relation to this to protect the workforce.

The Supervisory Board conducted an extensive review of the financial statements of TÜV SÜD AG, the consolidated financial statements and the combined management report. The Supervisory Board agreed with the findings of the independent auditor and has no objections following the final result of the review. The Supervisory Board approved the separate financial statements of TÜV SÜD AG which are herewith ratified. The Supervisory Board also approved the consolidated financial statements and the proposal of the Board of Management to the annual general meeting for the appropriation of retained earnings.

On behalf of the Supervisory Board, I would like to thank the members of the Board of Management, executives, employees and employee representatives for their successful work and exemplary commitment in the fiscal year 2019.

Munich, March 26, 2020



**PROF. DR.-ING.**  
**HANS-JÖRG BULLINGER**  
Chairman of the Supervisory Board of TÜV SÜD AG

# BOARDS OF THE GROUP

## Supervisory Board

**Prof. Dr.-Ing. Hans-Jörg Bullinger**  
Chairman  
Senator of Fraunhofer-Gesellschaft

**Harald Gömpel**<sup>1</sup>  
Deputy Chairman  
Chairman of the works council of  
TÜV Technische Überwachung  
Hessen GmbH

**Dr. Christine Bortenlänger**  
Member of the Executive Board of  
Deutsches Aktieninstitut e. V.

**Wolfgang Dehen**  
Former Chairman of the Board of  
Management of OSRAM Licht AG

**Dr.-Ing. Klaus Draeger**  
Former Member of the Board  
of Management of BMW Group

**Thomas Eder**<sup>1</sup>  
First Deputy Chairman of the works  
council Bayern Südost of TÜV SÜD  
Auto Service GmbH

**Jörg Frimberger**<sup>1</sup>  
Chairman of the works council  
Ansbach/Nuremberg of TÜV SÜD  
Auto Service GmbH

**Dr. Jörg Matthias Großmann**  
Member of the Board /  
CFO of Freudenberg Chemical  
Specialities SE & Co. KG

**Albert Hofmann**<sup>1</sup>  
Chairman of the works council  
Greater area Munich of TÜV SÜD  
Industrie Service GmbH

**Franz Holzhammer**<sup>1</sup>  
Union representative

**Peter Kardel**<sup>1</sup>  
Chairman of the works council of  
TÜV SÜD Industrie Service GmbH

**Wolfram Reiners**<sup>1</sup>  
Chairman of the central works  
council of TÜV SÜD Business  
Services GmbH

**Angelique Renkhoff-Mücke**  
Member of the Executive Board/  
CEO of WAREMA Renkhoff SE

**Kurt Seitz**<sup>1</sup>  
Representative Executive Staff  
TÜV SÜD Auto Service GmbH

**Prof. Dr. Rudolf Staudigl**  
Chairman of the Board of Manage-  
ment of Wacker Chemie AG

**Dr. Eberhard Veit**  
Chief Executive Officer of 4.0-Veit GbR  
Former CEO of Festo AG

## Board of Management

**Prof. Dr.-Ing. Axel Stepken**  
Chairman of the Board of  
Management

**Ishan Palit**  
Member of the Board of  
Management

**Dr. Matthias J. Rapp**  
Member of the Board of  
Management

<sup>1</sup> \_ Employee representative.

# COM BINED MANAGE MENT RE PORT



## **COMBINED MANAGEMENT REPORT**

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# GROUP INFORMATION

As a technical services provider, for more than 150 years TÜV SÜD has been protecting people, the environment and property against technical risks, facilitating technological progress in the process.

TÜV SÜD's range of services covers certification and testing, inspection, auditing and system certification, knowledge services and training. As committed and responsible process specialists with extensive sector-specific knowledge, we develop tailored solutions – for retail customers and for industry, trade and government. As experts, we optimize technology, systems and know-how, always with an eye on the entire value-added chain.

More than 25,000 employees at over 1,000 locations in around 50 different countries work to provide security and added value for our customers.

→ **WORLD MAP**  
SEE PAGES  
10 – 11

## Legal structure guarantees independence

TÜV SÜD stands for independence and impartiality, which are guaranteed by the specific structure of the Group. In its capacity as management holding company, the parent company TÜV SÜD AG with registered offices in Munich, manages its subsidiaries around the world. The beneficial owners of TÜV SÜD shares are TÜV SÜD e.V., Munich, and the TÜV SÜD Foundation, Munich. Both have transferred their shares to the independent TÜV SÜD Gesellschafterausschuss GbR, a shareholder committee with registered offices in Munich. The purpose of the civil law association is to hold and manage this shareholding under stock corporation law.

The governing bodies of TÜV SÜD e.V., the TÜV SÜD Foundation and TÜV SÜD Gesellschafterausschuss GbR, are largely independent of the supervisory bodies of TÜV SÜD AG. This ensures their independence.

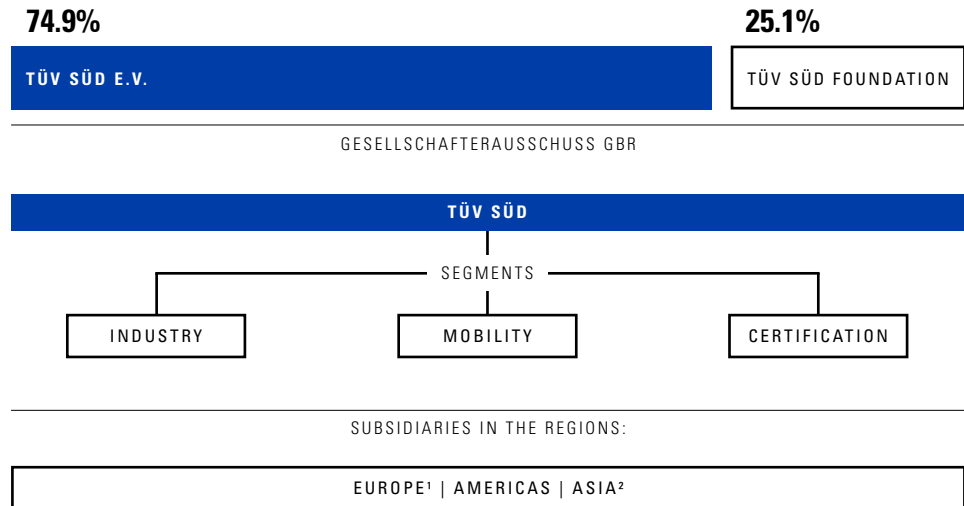
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The TÜV SÜD Foundation publishes its own report annually.



## Legal structure

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1 \_ Germany, Western Europe, Central & Eastern Europe.  
2 \_ North Asia, ASMEA (South & South East Asia, Middle East & Africa).

## Clearly defined management structure

TÜV SÜD is managed as a matrix organization. The Board of Management consists of the Chief Executive Officer (CEO), Chief Financial Officer (CFO) and Chief Operating Officer (COO).

Below the Board of Management, the Leadership Council is established as a body comprising both the Board of Management and the heads of the divisions and key regions. The Council supports the implementation of overarching topics such as strategy, employee development, innovation and digitization.

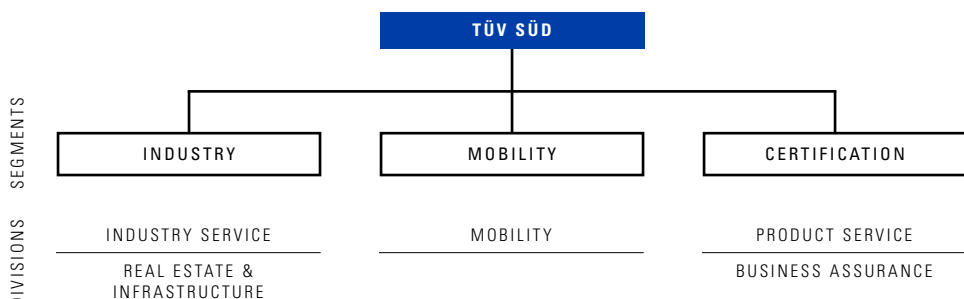
TÜV SÜD's services are grouped into three segments: INDUSTRY, MOBILITY and CERTIFICATION. The INDUSTRY Segment comprises the Industry Service and Real Estate & Infrastructure Divisions. The MOBILITY Segment contains the Mobility Division. The Product Service and Business Assurance Divisions make up the CERTIFICATION Segment.

While the divisions are responsible for implementing global strategies, local business development is the responsibility of the regions. The divisional and regional structure of our activities remained unchanged in the fiscal year 2019.

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## TÜV SÜD structure

lit 06



## Business model

We are a reliable partner when it comes to safety and sustainability. With our solutions, we create measurable added value for our customers, in the physical and digital world.

Our services meet two of our customers' key requirements:

- We facilitate **access to the market** with our testing services and certifications. Our experts are increasingly involved as early as the development process, helping to meet all of the requirements of the target markets – often long before a product is introduced onto the market.
- We **evaluate and reduce risks**, from risk assessments at facilities to cyber security evaluations. Increased networking between companies and across national borders is helping our experts work closer and closer with our customers.

## The market for technical services

As a technical services provider, TÜV SÜD is active on the market for TIC services (Testing, Inspection, Certification). This is a market with an estimated global volume of around € 75 billion, and one that has been growing steadily for many years.

The largest markets for technical services are the US, China and Germany. Market players include regulatory authorities, accreditation and standardization authorities, technical service providers like TÜV SÜD, research and development institutions, manufacturers, retailers and systems operators. Large international companies such as TÜV SÜD along with a large number of small specialists operate as technical service providers on the market.

The development of the TIC market is influenced by several factors:

Megatrends such as the ongoing process of digitization, sustainability or the evolution of individual mobility are driving growth on the TIC market. Positive effects also stem from the Real Estate & Infrastructure Division, in which potential can be seen in particular in facility management and advisory services. The increasing complexity and ever greater connectivity displayed by products is also having a positive impact on market development.

This is dampened by developments that are curtailing global trade such as trade disputes, political tensions or the impact of Brexit. A downturn in economic growth in China would also have a negative impact on the development of the TIC market. Last but not least, increasing uncertainty in key industries coupled with lower investing activities may also slow the development of the TIC market.

In light of this, for the coming year we expect annual market growth of between 3% and 4%. Therefore, accessible market volume could rise to around € 90 billion by the year 2025.

Above all, we want to grow organically and increase our revenue with high-quality services. We would also like to make targeted acquisitions in order to move into new lines of business, specifically in the field of digital technologies.

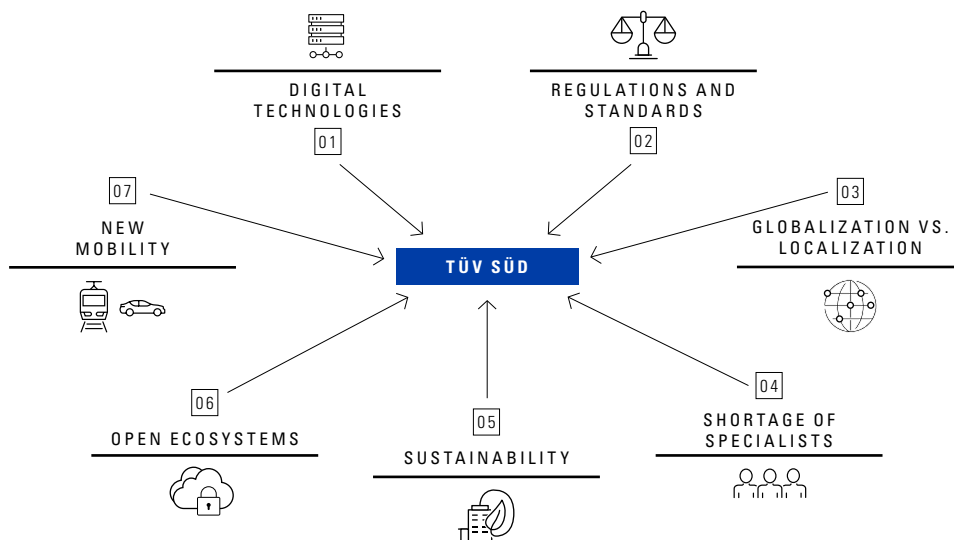
## Industry-specific environment

Since it was established more than 150 years ago, TÜV SÜD has made use of technological advances and the challenges these present to realizing the company's purpose, namely to make technological progress attainable and safe for people and the environment.

Increasing levels of digitization and new mobility trends, such as highly-automated driving and electromobility, have an impact on society. This presents us with both opportunities and challenges. We support our customers with this transformation and develop new processes to respond to the changing requirements and framework conditions. Our working environment and the way in which we work are also changing on account of technological change. We view technological advances primarily as an opportunity to further develop our company.

## Challenges and trends for TÜV SÜD

ih 07



### Our business is shaped by these trends and challenges:

#### 01 Digital technologies

→ The development of digital technologies, for example in the field of sensor technology, analytics and artificial intelligence (AI), is gathering pace. For us and for our customers this opens up numerous opportunities for new services, for the way in which services are provided in the future and for new processes.

→ **INNOVATIONS REPORT**  
SEE PAGES 27 – 28

#### 02 Regulations and standards

→ Regulations and standards must be constantly adapted to keep up with rapid technological developments so that they continue to offer security and value to society. The wealth of experience of our experts allows us to make a significant contribution to this. TÜV SÜD is also involved in various different bodies around the world. These also include international standardization bodies such as the International Electrotechnical Commission (IEC) and the International Organization for Standardization (ISO).

#### 03 Globalization vs. localization

→ Companies and their supply chains are becoming interwoven and increasingly global. This requires an understanding of and compliance with the various different national and international standards in effect at present. At the same time, the local markets in economies such as China are becoming more important. Local know-how and representation are required in order to serve these markets.

→ **MARKET FOR TECHNICAL SERVICES**  
SEE PAGES 22 – 23

#### 04 Shortage of specialists

→ The TIC market needs well-trained experts who are also capable of operating in an internationally networked environment. These specialists are in high demand on local markets; in Germany, recruitment is made even more difficult by demographic change.

→ **EMPLOYEE REPORT**  
SEE PAGES 73 – 79

#### 05 Sustainability

→ The energy mix will become progressively climate-neutral, and power will be used more efficiently. More and more companies are striving to work in a more sustainable manner, they want to preserve resources and design their supply chains accordingly. This development is being driven by more stringent environmental and regulatory capital market requirements, but also by a change in the mindset of society. This is also shifting the focus for our industry. Skills and services relating to sustainability, climate and environmental protection are coming to the forefront. In this regard, there is a development focus on the use of resources and therefore also on renewable energies and the associated challenges of energy storage and power grids.

→ **SUSTAINABILITY AS THE GROUP'S PURPOSE**  
SEE PAGES 31 – 32

#### 06 Open ecosystems

→ Digitization is giving rise to new business models and partnerships in the TIC industry; however, new competitors are also moving into the market. Data and platform-based services are increasingly being developed in order to better meet customers' needs and introduce new business models to the market.

→ **INNOVATIONS REPORT**  
SEE PAGES 27 – 28

#### 07 New mobility

→ The future of mobility is electric and highly automated. Mobility is becoming more and more a service and sharing-based models will be an important aspect of mobility in the future. This will present new challenges for the testing of vehicles, driver assistance systems and the entire charging infrastructure.

→ **BUSINESS DEVELOPMENT**  
SEE PAGES 40 – 44

# Strategy

With our strategy “The Next Level. Together.”, which runs until 2025, we want to reach the next level in the development of our company. This is because new trends and developments, driven in particular by digital technologies, offer additional opportunities, both for us and for our customers. We pursue four strategic angles in order to exploit this potential:

08

## The Next Level. Together.

08



### → Set up excellence and efficiency:

We want to always offer our customers the best services – and our customers should notice the difference. This requires excellence in our services, distribution, processes and excellence of our employees. In light of this, in 2019 we pushed forward with the expanding strategic customer management and bolstered our digital marketing and e-business activities. This is highlighted by our new website.

### → Re-invent TIC core business:

Our expertise in almost every industry, combined with knowledge of the possibilities of digitization, enables us to develop data-based, continuous and automated testing services, and also develop standards for new fields of technology.

→ **Enrich with high-quality services:**

Based on our expertise, we want to offer technical consulting with renewed focus while making our business digital and customer-oriented by developing platforms. For example, the web-based customer portal “PS UCI Portal” allows for modern customer communication including project status updates and data exchange in the Product Service Division.

→ **Scale up internationalization:**

We aim to be market leaders in our core countries. Our focus is always on offering services and skills across national boundaries. We want to make our relationships with our customers increasingly global and build up our business activities around the world. A prime example of this is the completion of our testing facilities in China and the UK in the fiscal year.

In order to implement these four strategic angles, we defined strategic priorities and initiatives at a group level and for each of our divisions in 2018. The focus in the fiscal year 2019 was on the rigorous implementation of these initiatives. This is as we also want to be a partner for our customers in the future with respect to safety and sustainability, in both the physical and the digital world. We want to continue to sustainably improve the revenue and profitability of our business. To this end, we are planning to invest more than € 100 million each year. But above all, we want to live up to the vision that we have been pursuing for more than 150 years: to protect people, property and the environment against technical risks, facilitating technological progress in the process.

→ **BUSINESS DEVELOPMENT**  
SEE PAGES  
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## Innovation is key

If we stand for the security of technology, then we must be at the forefront of technological change ourselves. And those who want to remain competitive in the long term must also take every opportunity within their own company to work efficiently and offer a customer the highest possible quality of service.

That is why TÜV SÜD has been practicing active innovation management for many years. In the fiscal year 2019 we invested approx. € 20 million (prior year: € 19.9 million) in research and development for highly innovative projects. Our goal is to develop innovations that are clearly tailored to the market and to quickly and effectively translate them into specific products.

Our activities in 2019 were shaped by the digital transformation of our core business and the expansion of our new, technology-driven business models. And as these are best put to the test in practice, there was also a particular focus in this fiscal year on joint pilot projects with customers and partners.

### SHAPING THE DIGITAL REVOLUTION

The ongoing process of digitization is changing business models, and constantly presenting us and our customers with new challenges. TÜV SÜD spotted this trend early on. TÜV SÜD Digital Service GmbH (TÜV SÜD Digital Service), Munich, and its two competence centers for digital services in Singapore and Munich offer experts and know-how to assist our customers with almost any issue relating to digitization. While the main focus of the competence center in Singapore is on the rapid implementation of pilot projects in the city-state's highly innovative environment, the competence center in Munich develops the key technologies that are relevant to TÜV SÜD and drives group-wide initiatives and projects.

In the field of Advanced Analytics we use our technical and sector-specific expertise to offer our customers new or expanded services such as data-based projection models. We expect applications in the field of artificial intelligence in particular to provide a significant boost to existing services as well as entirely new lines of business.

With comprehensive cyber security services, TÜV SÜD is a reliable partner in all matters relating to IT security, particularly for our customers in industry. Our services in this context include certifications in connection with the "Internet of Things", device and version management for factory automation, and penetration and security tests for industrial, IT-assisted applications. As a member of the "Charter of Trust" initiative, we work with renowned industrial corporations to promote cyber security at all levels and foster trust in it. To this end, the initiative outlines key principles for coordinated action on the part of politics, society and business partners.

We make use of the possibilities offered by machine learning and artificial intelligence in various projects in order to develop new or enhanced services – with corresponding added value for our customers.

Consequently, on account of our participation in Digital Vehicle Scan GmbH & Co. KG (DVS), Passau, we are able to offer customers in the MOBILITY sector a standardized and automated digital vehicle scan. This makes processes quicker and more transparent in any situation where vehicle condition needs to be quickly and reliably assessed – for example in the rental car business or fleet management. Even large volumes of vehicles can be quickly and reliably documented. The enhancement of our camera robot PhotoFairy Robot MIC allows us to generate high-resolution 360° photo models automatically, in a standardized manner and without costly infrastructure. The data are available online immediately after they have been captured, also providing efficient support for the sale of lease returns.

We are currently already working on automatic damage recognition and categorization using artificial intelligence, which will support the technical experts when evaluating damage and thereby further optimize the inspection of the vehicle condition. A pilot project with a renowned automobile manufacturer is planned for mid-2020.

In Singapore, we are working with several partners on designing building facade inspections in an efficient manner. Using drones fitted with high-resolution cameras and thermal imaging systems, our experts are also able to more reliably detect damage, even in hard-to-reach places, without having to be on-site themselves. This involves detecting anomalies such as corrosion and cracks greater than 0.2 mm in size in the facade of a high-rise building, which already pushes conventional inspection methods to their limits. Artificial intelligence also supports the process in this instance: The recordings are automatically presorted and marked for anomalies so that critical areas can be immediately viewed by experts, providing effective support to the inspection process. In addition, the individual recording can be used to create a “digital twin” of the facade, which can be used for further services.

In 2019, we successfully established our activities in highly-automated driving (HAD) as a new unit in the MOBILITY Segment. Numerous new partnerships in this area have contributed towards us being able to offer our customers even more comprehensive services in this topic of the future.

More than 300 companies in Asia and Germany have since been through the Smart Industry Readiness Index, which TÜV SÜD developed together with the Singapore Economic Development Board. This assessment helps companies to evaluate how advanced their progress is on the path towards Industry 4.0 and digital transformation – in terms of their processes, technology and organization. Alongside determining the Industry 4.0 maturity level, this TÜV SÜD service also includes a delta, risk and productivity analysis.

We will also continue to rigorously invest in the development of technology in the future – and above all in the know-how and skills of our employees, as they are the ones who advance the transformation of the company. An amount in the double-digit million range will be spent on the development of new services relating to the field of digitization in the next three years alone.



## Our management system

TÜV SÜD's management system is based on the integrated controlling system and strategic corporate planning. We use various key figures as indicators to manage and measure the performance of the Group.

We have defined revenue growth and earnings before interest, before other financial result and before income tax, but after income from participations (EBIT) and the EBIT margin as key financial performance indicators.

These indicators are supplemented at group level by the value-based indicator Economic Value Added (EVA®), which has been adapted to the requirements of TÜV SÜD. This measures the value added by the Group and takes into account the cost of capital used to generate the respective earnings. The EVA indicator is a key component of variable compensation in the compensation system for the first and second levels of management.

At Group level, we also use free cash flow and earnings before taxes (EBT) as additional, non-material financial indicators. The free cash flow shows the extent to which we generate long-term cash flows from our operating activities.

Various non-financial performance indicators have been defined for our key asset, our employees. These indicators include headcount, the average age of employees, the proportion of female employees and the average duration of employment at the company. ≡ 02

### Definition of financial performance indicators at TÜV SÜD ≡ 02

KEY INDICATOR	DEFINITION
EBIT	Earnings before interest, before other financial result and before income tax, but after income from participations
	NOPAT – GROUP'S COST OF CAPITAL
	<b>Net operating profit after tax (NOPAT)</b> = EBIT – income tax (flat rate of 30%), excluding the at-equity result from the flat-rate taxation
	<b>Capital employed</b> = non-current operating assets + inventories and receivables – non-interest bearing liabilities and provisions <sup>1</sup>
EVA	<b>Group's cost of capital</b> = average capital employed × weighted average cost of capital (WACC: 7%)
Free cash flow	<b>Cash flow from operating activities</b> – Cash outflow for investments in intangible assets, property, plant and equipment and investment properties

<sup>1</sup> \_ Non-interest bearing liabilities and provisions include current provisions and tax liabilities.

This value-based management is implemented in our **integrated controlling system**. It is based on a group-wide management information system, a harmonized global finance function, and accounting and reporting in accordance with International Financial Reporting Standards (IFRSs).

All performance indicators are determined as part of our planning and monitoring processes for the respective levels of the Group (segments, divisions, regions and legal entities) and are made available in standardized format via our internal reporting system.

The starting point for our planning and control processes is **strategic planning**. This aims to achieve profitable growth and a continuous increase in the value of the company.

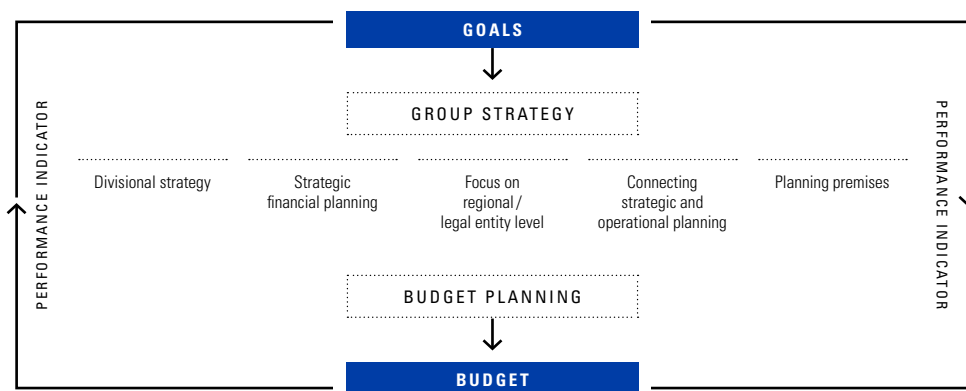
In addition to quantitative factors and hitting operating targets, the reputation of the TÜV SÜD brand is at the forefront of everything we do. The quality of the services we provide and the satisfaction of our customers are crucial in this regard.

The Group's strategy, which is broken down into the respective divisional strategies, is derived from the long-term strategic goals. The divisions' targets are incorporated into the strategic financial planning and are specified in more detail at a regional level. The planning for the next year that is derived in this way, and three forecasts during the year in progress, combined with prompt monthly financial statements, form the basis for our analyses with which we measure the implementation of strategic goals and analyze deviations from the plan.

09

## Strategic and operational planning

09



\* The content of this section is voluntary and, therefore, has not been audited, but critically read by the auditor.

## Sustainability as the Group's purpose\*

Sustainable action geared to protecting people and the environment is firmly anchored in TÜV SÜD's goals. Protecting people, property and the environment has shaped the company as its purpose since its foundation over 150 years ago. .ll 10

### Group purpose .ll 10

"WE PROTECT  
**PEOPLE, THE  
ENVIRONMENT AND  
ASSETS** AGAINST  
TECHNOLOGY-RELATED  
RISKS AND THEREBY  
ENABLE **PROGRESS.**"

TÜV SÜD offers extensive services in the area of sustainability. Ranging from audits and certifications of occupational health and safety and food safety to environmental management, energy efficiency, renewable energy or electromobility.

We also apply strict standards to our own actions. Absolute integrity and strict compliance with laws and standards are absolutely essential for us as a technical service provider. Alongside the TÜV SÜD Code of Ethics, we also focus on adhering to various standards and laws relating to human rights, working conditions and combating discrimination. Consequently, the Diversity Charter has applied since 2017; an annual declaration on the British Modern Slavery Act 2015 is also submitted.

A comprehensive compliance management within the Group ensures that our employees always meet the high standards that our customers and the public expect from us. Transparency is also an important aspect of sustainable activity, and also necessary in order to get better at everything we do. Therefore, our aim is to make our activities and their impact on our corporate environment measurable and comparable.

→ SEE  
[WWW.TUVSUD.COM/EN/CAREERS/  
LIFE-AT-TUV-SUD/DIVERSITY-AT-  
TUV-SUD](http://WWW.TUVSUD.COM/EN/CAREERS/LIFE-AT-TUV-SUD/DIVERSITY-AT-TUV-SUD)

\* The content of this section is voluntary and, therefore, has not been audited, but critically read by the auditor.

The following activities are examples of our efforts in connection with sustainability in the fiscal year:

→ **Supporting the next generation of scientists in Spain**

In 2019, as part of the competition Jugend forscht Iberia” [“Youth Research Iberia”] TÜV SÜD Spain advocated the promotion of education in science and research. The largest and one of the most important meetings of young scientists in Europe brings young participants together each year to work together on scientific projects in fields such as chemistry and physics or environmental sciences.

→ **Awakening potential and providing opportunities in Germany**

As part of the non-profit initiative to combat youth unemployment “JOBLINGE”, TÜV SÜD and the TÜV SÜD Foundation support young people from socially disadvantaged backgrounds in entering the world of work. As volunteer mentors, TÜV SÜD employees help around 20 “Joblinge” [mentees] every year to find an apprenticeship, for example in retail or motor vehicle mechatronics.

→ **Supporting biodiversity**

In Germany, we are creating more and more green spaces on the rooftops of our buildings. We use particularly biodiverse plants for our green spaces in order to offer food and a space to live to as many insects as possible.\*

# CORPORATE GOVERNANCE REPORT

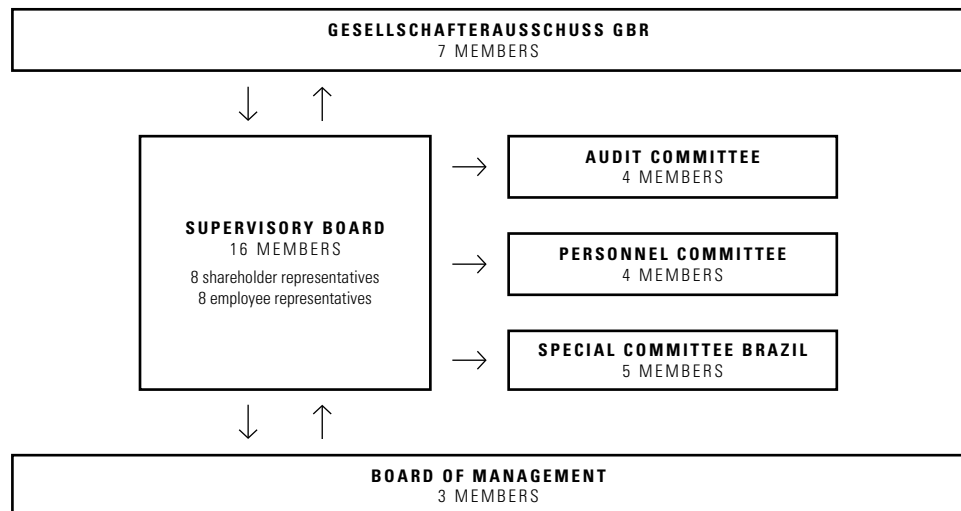
The Board of Management and Supervisory Board of TÜV SÜD AG are guided by the requirements imposed by the German Corporate Governance Code on capital market-oriented companies.

We consider good corporate governance to mean responsible, transparent and values-based management. It is explained in greater detail in clear guidelines and regulations that apply throughout the company. We regularly review these principles and adapt them in line with new findings, changed legal provisions, and national and international standards. This creates transparency and this enhances the trust of our customers, our employees and the public in our work and allows us at the same time to meet the steadily increasing information requirements of national and international stakeholders.

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## Overview of the bodies and committees of TÜV SÜD AG

11



## Composition of the Supervisory Board

The Supervisory Board of TÜV SÜD AG comprises 16 members. In accordance with German law, half of the members are employee representatives and half are shareholder representatives, who are reputable representatives of business and the public. The Supervisory Board has two female members representing the shareholders.

The audit committee consists of four members and deals primarily with monitoring the financial reporting process, the effectiveness of the internal control system, the risk management system and the internal audit system. In particular, it receives reports on the Group's risk situation, the findings of internal audits, including compliance breaches, as well as planned investment and portfolio measures. It also deals with the audit of the annual financial statements and the independence of the auditors, the additional services provided by the auditors, the award of the audit engagement and the definition of audit priorities and the agreement of fees.

The personnel committee comprises four members. Its main tasks include preparing appointments and removal of members of the Board of Management, drafting recommendations on remuneration of the individual members of the Board of Management and designing and regularly reviewing the remuneration system.

A special committee was formed in the fiscal year as a consequence of the dam collapse in Brazil. The committee is tracking the internal and external handling of the incident. It receives regular status updates, also from independent technical experts and law firms engaged for this purpose.

The Supervisory Board as a whole is regularly informed by the respective committee chairmen of the activities of the respective committees.

## Committees of the Supervisory Board

≡ 03

	Supervisory Board	Audit Committee	Personnel Committee	Special Committee Brazil
Prof. Dr.-Ing. Hans-Jörg Bullinger	Chairman	Member	Chairman	Chairman
Harald Gömpel	Deputy Chairman		Member	Member
Dr. Christine Bortenlänger	Member			
Wolfgang Dehen	Member			Member
Dr. Klaus Draeger	Member			Member
Thomas Eder	Member	Member	Member	Member
Jörg Frimberger	Member			
Dr. Jörg Matthias Großmann	Member	Chairman		
Albert Hofmann	Member			
Franz Holzhammer	Member	Member		
Peter Kardel	Member			
Wolfram Reiners	Member			
Angelique Renkhoff-Mücke	Member			
Kurt Seitz	Member			
Prof. Dr. Rudolf Staudigl	Member			
Dr.-Ing. Eberhard Veit	Member		Member	
NUMBER OF MEETINGS				
	5 (of which 1 conference call)	5	2	14 (of which 2 conference calls)

The attendance rate at the meetings of the Supervisory Board and its committees was over 90% in 2019. At the Audit and Personnel Committees, the attendance rate was always 100%.

## Composition of the Board of Management

The Board of Management of TÜV SÜD AG has three members. It is responsible for running the company and manages its business. It is bound to act in the interest of the company and to increase the long-term value of the company. It discharges its management duties as a collegial body with joint responsibility for managing the company.

→ CLEARLY DEFINED MANAGEMENT  
STRUCTURE  
SEE PAGE  
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## Cooperation between the Board of Management and the Supervisory Board

TÜV SÜD's strategic direction is coordinated closely between the Board of Management and Supervisory Board of TÜV SÜD AG. The boards jointly discuss the status of strategy implementation at regular intervals. The Supervisory Board is informed by the Board of Management regularly, comprehensively and without delay about all relevant questions regarding business development, planning and the situation of the company, including the risk position and risk management, as well as compliance, in written and oral reports.

Further information on collaboration between the Board of Management and Supervisory Board of TÜV SÜD AG can be found in the Supervisory Board report. The members of the Board of Management and Supervisory Board are listed in the Boards of the group section.

→ BOARDS OF THE GROUP  
SEE PAGE  
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## Declaration on the equal representation of women and men in management positions

In June 2017, TÜV SÜD AG set new targets for the inclusion of women in managerial positions for the period until December 31, 2021. An increase to the percentage of women on the Board of Management is currently not envisaged. For future appointments, women will be considered on an equal footing to men.

≡ 04

≡ 04

	Target rate	Share already achieved (December 31, 2019)	Deadline
Supervisory Board	25%	13%	December 31, 2021
Board of Management	0%	Achieved	December 31, 2021
First management level	20%	16%	December 31, 2021
Second management level	35%	42%	December 31, 2021

Representation targets were also defined for the four German group companies affected by the legislation. The representation targets were at least on a par with those already achieved in 2017. December 31, 2021 was set as the deadline in most cases.

→ EMPLOYEE REPORT  
SEE PAGES  
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## Compliance

Compliance with international rules and dealing fairly with our business partners and competitors are among our company's most important principles. TÜV SÜD has always felt bound by legal and internal requirements. Ethical principles are an integral part of our corporate culture.

TÜV SÜD takes a preventive approach to compliance and endeavors to achieve a corporate culture that proactively excludes potential breaches by raising employee awareness and educating the workforce. The necessary measures and compliance with implemented checks are monitored at regular intervals by the internal audit function. This involves systematically reviewing compliance and performing controls based on random samples, as well as investigating the facts in the event of actual suspicions.

The Chief Compliance Officer is supported in his work by the Global Compliance Officer, the Local and Regional Compliance Officers, the Corporate Compliance Officers and the Legal department. We have communicated concrete behavioral principles (the TÜV SÜD Code of Ethics) to all entities, and established them as an essential component of the Group's culture. The TÜV SÜD Code of Ethics consists of compliance regulations that include avoiding conflicts of interest and corruption, and observing embargo and trade control provision, among other things. Its guiding principles are independence, integrity and law-abiding behavior.

Through comprehensive training, including an e-learning program tailored to the company's specific requirements, we ensure that our corporate compliance requirements are put into practice within the company. Employees may contact the Chief Compliance Officer or Global Compliance Officer at any time by letter, e-mail or telephone. There are also Local Compliance Officers available as direct points of contact. In addition, the internet-based EthicsPoint platform is available to report compliance-related matters in selected countries.

Employees and business partners can also report indications of breaches and suspected violations to an external system of ombudsmen in individual countries, who are sworn to secrecy and anonymity. Breaches of the law or internal policies are subject to appropriate sanctions and may result in consequences for our employees under labor law, up to and including dismissal.

TÜV SÜD's procedure for processing personal data was adapted to the data protection provisions of the General Data Protection Regulation (EU-GDPR) during the fiscal year, the compliance risks were once again analyzed in the TÜV SÜD Group and the requisite countermeasures were taken.

## Risk management system

In our day-to-day work, we attach high importance to careful handling of potential risks for the company. Our risk management system is designed to identify risks, evaluate existing risk positions and optimize risks entered into. This is done in the risk committees set up for this purpose, comprising representatives of the divisions and segments. We continually adapt this system to the changing business environment.

→ SEE  
[WWW.TUVSUD.COM/EN/ABOUT-US/CODE-OF-ETHICS](http://WWW.TUVSUD.COM/EN/ABOUT-US/CODE-OF-ETHICS)

→ OPPORTUNITY AND RISK REPORT  
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# ECONOMIC REPORT

## Macroeconomic environment

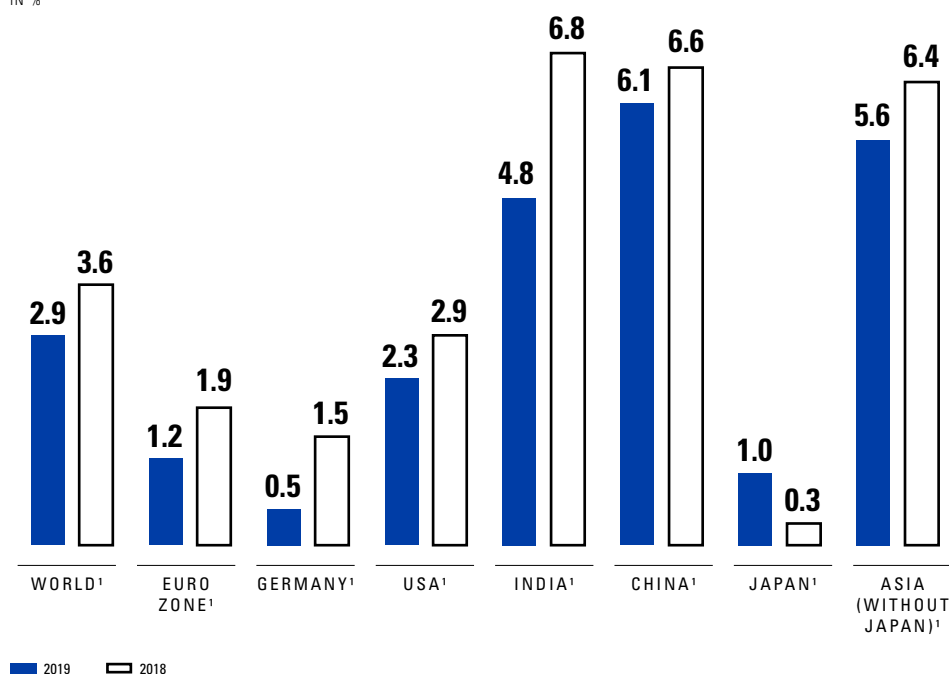
The increasing uncertainty due to various trade disputes, the increase in global indebtedness and the slow-down of global industry hampered global economic development in 2019. Consequently, global economic output lost momentum over the year and only grew by 2.9%. The disparities in the economic trends of individual countries became less pronounced. The developed economies saw a drop in industrial output. Although industrial output still followed a slight upward trend in the emerging economies, the economy as a whole was restrained. Only the services sector saw steady growth.

12

### Economic growth in key markets worldwide

12

IN %



1 \_ IWF world economic outlook (prior-year forecast updated with actual figures).

### SLOWED GROWTH IN EUROPE

The economic growth of most countries in the European Union slowed noticeably during the fiscal year. GDP growth of 1.2% both in the euro zone and for the entire European Union was down on the prior year (1.9%). This was due to the lack of momentum from foreign trade for industrial output. A possible escalation of tensions regarding trade policy between the EU and the US has likewise dampened the economic forecast.

The German economy cooled off in 2019. GDP growth was only minimal (0.5%), down from the 1.5% still seen in the prior year. Affected by uncertainty regarding economic policy around the world, the industrial sector entered into a mild recession. The decline in hitherto high levels of capacity utilization led to levels falling short of normal utilization in industrial enterprises. Momentum also slowed for ancillary corporate services. However, expansion in the areas of ancillary consumer services and construction continued, spurred on by continued cheap sources of financing. The continuing expansion of recruitment in the services sector and measures taken in terms of financial policy have had a positive impact on disposable income for private households.

The UK's decision to leave the European Union continued to impact its economic growth in 2019. At 1.4%, the UK's economic growth remained at the prior-year level. By contrast, economic momentum was unexpectedly robust in Central and Eastern Europe.

## **US: ECONOMIC GROWTH TAILS OFF**

Economic growth in the US continued in 2019 at a moderate pace. On an annual average, gross domestic product in the US grew by 2.3% (prior year: 2.9%), as tax incentives offered in the prior year expired and export activity was down. In addition, a drop in investing activities by companies along with decreasing consumer demand in comparison to the prior year also dampened economic growth.

## **SOFT DEVELOPMENT IN EMERGING MARKETS**

The moderate growth of the advanced economies also dampened demand in emerging economies. In addition, the uncertainty regarding trade policy did not only slow economic growth in China. At 6.1%, the Chinese economy grew at a slower pace than in the prior year (6.6%).

The Indian economy took a significant hit during the fiscal year. Economic growth slowed from 6.8% to 4.8%. This was due to problems in the shadow banking sector, which plays an important role in financing private households and small enterprises.

## **EXPANSIVE MONETARY POLICY**

Key interest rates in the euro zone remain at historically low levels. The lowering of the base rate by the US Federal Reserve in 2019 also allowed interest rates to be lowered in emerging economies. On the whole, the divergence in financial policy has only created low levels of momentum for economic growth. Many advanced economies continue to pursue an expansive monetary policy.

The euro continued to depreciate against the US dollar in the course of the fiscal year 2019 and stood at US 1.12 dollar (prior year: US 1.15 dollar) at the end of the year. Over the year, the euro also depreciated in value against other important currencies for TÜV SÜD. The development of the most important reference currencies is shown in the notes to the consolidated financial statements.

## Business and economic environment

The focus of our activities in our segments in the fiscal year 2019 was on continuing to operationalize our Strategy for 2025. In particular, we would like to put the opportunities offered by digitization and new technologies to good use for our customers – around the world and in all our markets.

We want to grow further and make targeted investments in our competence centers and expanding our networks of testing laboratories. We are focusing our activities on stable economic areas. In some segments and markets, the success of our business is closely linked to economic development. Therefore, positive economic development – such as steady economic growth in Asia – provides stimulus, while events such as Brexit in the UK could have a negative impact.

At the same time, technological change on the markets has an impact on our business and economic environment. New drive technology, the mainstream implementation of electromobility, regulations relating to climate and environmental protection and alternative forms of mobility are topics that the automotive industry, and therefore also our customers, are tackling at a global level.

In 2019, we devoted a lot of time and effort to managing the consequences of the dam collapse in Brazil. The plan of action derived from this included reviewing the product portfolio and business activities. In this regard, the most important criteria are relevance for the TIC market and strategic importance of the services offered. Selected testing services were discontinued in certain markets as a consequence of the accident in Brazil in the past fiscal year.

As of the end of the fiscal year, TÜV SÜD AG acquired TÜV SÜD Föderation GmbH from TÜV SÜD e. V. The company solely holds pension obligations.

### INDUSTRY

In the fiscal year, the strategic priorities of the INDUSTRY Segment focused on global market penetration in the areas of automated process monitoring, renewable energy and power supply. In addition, we further expanded out integrated innovation and digitization management in the segment with the aim, amongst others, of driving forward the digitization of testing services.

Against the background of the renewable energy revolution, our commitment to renewable energies is a guiding principle. Alongside the certifications Green Hydrogen (green or renewably produced hydrogen) and CertifHy Scheme (guarantee of origin for green hydrogen), we also offer certifications for biomethane, biofuels or eco-electricity. These services are supplemented by certification for “Energiewendeunternehmen” that companies satisfy the requirements of the energy revolution, which targets energy providers and the manufacturing industry. Wind energy is also part of the renewable energy initiative and thus also a strategic focus.

Our comprehensive experience with onshore and offshore wind farms won us various certification and testing contracts in Germany and elsewhere in Europe. In Germany, we also offer our customers inspections of facilities that are subject to special control by the German ordinance on industrial health and safety (BetrSichV).

The advance of digitization is increasing demand for more secure and readily available performance and capacity in data centers. TÜV SÜD offers certification of data centers based on the European standard EN 50600. By setting requirements for the physical set-up, infrastructure and operational management, the standard creates transparency on the security of data center and allows for demand-optimized planning.

In July 2019, TÜV SÜD was recognized by the German National Accreditation Body (DAkkS) as a testing body for the safety of measurement, control and feedback control technology based on the German industrial standard DIN EN ISO/IEC 17020:2012. Functional safety in plant and mechanical engineering is not only a key requirement to protect people and the environment, but also to minimize the danger to technical equipment and machinery.

New products or materials, which are manufactured using additive processes or used in additive manufacturing as pressure equipment, also have to conform to safety requirements. We offer certification in this field, which is based on the European Pressure Equipment Directive and other standards, supplemented by our extensive experience in the field of plant safety.

With our competence center for Building Information Modeling (BIM), we support property owners, developers and investors in gaining a quantifiable benefit from the advantages offered by this method. Building Information Modeling simulates the entire life cycle, and can be supplemented by other technologies in order to reduce costs during the construction and operation phase, and mitigate risks, for example using sensor-based moisture detection. Through strategic partnerships, development work on the modeling of digital twin buildings continued. To date, projects have been realized in Germany, Austria, Singapore and the Middle East.

We also use new technologies such as aerial photographs taken by drones and 3D models when carrying out building inspections and construction supervision. In this field, we provide services to construction projects in South Korea, China and the Middle East, amongst others.

Our lift certification services are in demand internationally and allow for cross-selling potential for further services such as building automation. For the approval of lift models, we are currently developing hardware and software, which should be applicable across all global markets.

We are further driving the internationalization of our expertise in railway transport. In addition, we acquired simulation software for inspection runs of railway vehicles for the Swedish market. In doing so, we are further expanding our digital inspection capabilities in the railway sector.

In August 2019, we sold Signon Österreich GmbH (Signon Austria), Vienna, Austria. In 2020, we aim to sell our German planning business for railway systems.

An impairment loss was once again recognized on assets and property, plant and equipment from the restructuring of the US company PetroChem Inspection Services Inc. (PetroChem), Pasadena. The expectations regarding future company development led to impairment losses on assets at the South African company TUV SUD South Africa Pro-Tec (Pty) Ltd., Middleburg, South Africa, and the German company TÜV SÜD Advimo GmbH, Munich.

## MOBILITY

Strategic priorities in the MOBILITY Segment focused on new technologies in the area of mobility and the development of new business models and innovative services. In this way, through the further internationalization of our services, we are facing up to the far-reaching change in the automotive industry.

Alongside our home market of Germany, our activities in the regulated sector are concentrated on Austria, Turkey and Spain. Regulated business is currently being set up in Slovakia. However, we offer a far greater proportion of our performance spectrum internationally in the non-regulated sector.

On account of our investment in DVS in 2019 we are able to offer our customers in the rental car business and fleet management a standardized and automated digital vehicle scan.

In the fiscal year, collaboration commenced with a strategic partner for the fleet management business, with a view to integrating the existing business model into intermodal mobility, i.e., the combination of various means of transport in an urban environment, and pave the way for further growth using the additional range of services coupled with greater connectivity.

In Heimsheim, we have been expanding our testing facilities for emission and consumption measurements as well as the engine and roller testing rigs since fall 2017 and have grown into the largest mobility testing facility in Europe. The testing facility already offers independent engine and exhaust-gas analyses. In the future, type approvals can also be carried out at this facility in compliance with all international guidelines. Completion is scheduled for 2020.

Our activities in the field of highly automated driving are progressing and were transferred over into the operational business during the fiscal year.

Together with other organizations, TÜV SÜD founded the International Alliance for Mobility Testing and Standardization (IAMTS). The role of the IAMTS is to develop and harmonize globally standardized inspection methods and uniformly recognized standards relating to automated driving, and in doing so provide effective support to the development and market introduction of automated mobility.

→ **INNOVATIONS REPORT**  
SEE PAGES  
27 – 28

## CERTIFICATION

Strategic priorities in the CERTIFICATION Segment are focused on digital transformation and expanding our service in the area of medical technology, connected and additive manufacturing along with electromobility. In this regard, we are supporting our customers around the world in transforming their business models and opening up access to global markets. Our range of services encompasses the entire product lifecycle of industrial, medical and consumer goods. We provide our services globally in close proximity to the production or distribution site. The product portfolio is complemented by cyber security services and a range of certification and training offerings in relation to digitization.

Electromobility and highly-automated driving are examples of new forms of mobility within our society. In this regard, we support our customers in safely designing electromobility and to this end we are making targeted investments in expanding our testing facilities. For example, in November 2019 we opened a testing facility in China for plug-in electric vehicles. Further locations are planned in Asia, Germany and the US.

In our numerous testing facilities in China, alongside chemical analyses and tests of electromagnetic compatibility, we also offer certification services according to ENEC (European Norms Electrical Certification) and ENEC+ for electronic and lighting products. On account of new standards and regulations, we see additional potential to expand our testing facility capacity and realize optimizations using efficiency programs, in the chemical and EMC services in particular.

TÜV SÜD offers testing and certification services for medical products throughout their entire life cycle, from the idea for the product through to market maturity and eventually the end of the cycle. We are constantly expanding our portfolio of services in this area. In the fiscal year, activities were focused on the transition to the new Medical Devices Regulation (MDR). TÜV SÜD is one of the first providers in the world to offer the new certification. In September 2019, after having successfully received accreditation, we issued our first MDR certificate. The IT security of medical products is becoming increasingly important. We have developed a test flow chart for this purpose and carried out initial pilot projects, for example a cyber security check for infusion pumps. Furthermore, we also expanded our range of testing services for biological and chemical tests.

The new ISO 14155 (Good Clinical Practice) certification has also been established internationally on the market.

The strategic cooperation with flowtify GmbH, Cologne, has added a digital component to our quality management services for food safety. Alongside digital, cloud-based quality and hygiene checks, we will also digitize the audit process.

We are driving digitization across all of our services and gear our innovations to our services towards the needs of our customers. For example, we address the requirements of the “quality manager” customer segment using a quality management platform. In this way, we are providing our customers with digital tools to analyze audit results, perform internal audits and supplier audits, carry out training sessions and briefings and implement new legal requirements.

We have expanded our IT-related services to include TISAX (Trusted Information Security Assessment Exchange), a standard defined by the automotive industry for information security in the value chain of the automotive industry. Our TISAX services include assessments, audits, certifications and comprehensive training.

Digitization of training is also being driven forward in the TÜV SÜD Digital Academy. This includes digital training sessions on our e-learning platform along with virtual reality (VR) assisted training sessions. Moreover, in the fiscal year TÜV SÜD also started collaborating with a renowned research institute to offer further practice-relevant training on cyber security. In the training session, participants get to grips with application-based and practice-oriented approaches and effects of attacks on production systems using cyber attack case studies.

At the Italian company P.H. S.r.l., Florence, we recognized impairment losses on property, plant and equipment after we had identified asset erosion.

We recognized a write-down on our participation in Uniscon identity control GmbH (Uniscon), Munich, after the earnings forecast was dampened somewhat due to delays in product development and market launch.



## Business development

In the fiscal year 2019, TÜV SÜD was able to grow organically in a difficult environment. Some of our markets were negatively impacted by political uncertainty and subdued economic growth. The implications of the dam collapse in Brazil, which occurred on January 25, 2019, and disposals of entities during the year also had a negative impact on business development.

### DAM COLLAPSE IN BRAZIL

#### Summary of the situation and investigations

The accident at the dam near to the village of Brumadinho in Brazil in January 2019 continues to impact the Group's financial performance and position. Various lawsuits have been filed against both our subsidiaries in Brazil and TÜV SÜD AG in connection with the certificate of stability issued in 2018 by our Brazilian subsidiary TÜV SÜD Brasil Engenharia e Consultoria Ltda. (TÜV SÜD BRASIL; formerly TÜV SÜD Bureau de Projetos e Consultoria Ltda.); further lawsuits have been threatened.

Alongside the internal investigations, which started in 2019 and have not yet been concluded, by internationally recognized technical experts and renowned law firms in Germany and Brazil, TÜV SÜD is also cooperating with the responsible investigating authorities.

#### Impact on the financial performance and position of the Group and TÜV SÜD AG

The probability-weighted scenarios used in the consolidated financial statements as of December 31, 2018 have been further developed on the basis of the current status of the investigations in order to realistically estimate the exposure. The amounts that have been estimated in this manner for the various scenarios stemming from lawsuits and bases of liability were accounted for in these financial statements as provisions. However, as the aforementioned investigations and TÜV SÜD's internal investigations are still ongoing and the factors of influence to be considered in a legal dispute are multi-faceted, the actual exposure may deviate from these estimates. Further disclosures on the estimates in respect of the financial implications and disclosures on uncertainty regarding the amount or maturity of amounts of the provisions have not been made in this regard pursuant to IAS 37.92, so as not to compromise the findings of potential proceedings and the Group's interests. Furthermore, provisions for legal defense and advisory costs of € 28.5 million have been recognized in the consolidated financial statements and provisions of € 23.7 million have been recognized in the annual financial statements of TÜV SÜD AG. Part of the legal defense costs may be covered by an insurance policy. Should the outcome of the legal proceedings find to the detriment of TÜV SÜD, this may result in substantial damage payments in subsequent years that could have a significant negative impact upon the financial performance and position and reputation of the Group and TÜV SÜD AG. The ability of the Brazilian subsidiary TÜV SÜD BRASIL and its direct shareholder TÜV SÜD SFDK Laboratório de Análise de Produtos EIRELI (TÜV SÜD SFDK), São Paulo, Brazil, to continue as a going concern is jeopardized should these companies be held liable for the dam collapse in Brazil and no further financial support were to be provided by the shareholders. For further explanations please refer to the remarks in the sections "Compliance and other risks" and "Overall statement on risks faced by the Group". Moreover, we also engaged an investigative commission consisting of external, internationally-renowned technical experts, to provide an independent expert opinion on technical issues. The investigations have not yet been completed.

## Targets and results

05

	2018	2019 Outlook	2019
Revenue	€ 2,498.5 million	€ 2.6 billion	€ 2,590.1 million
Development compared to prior period	2.9%	4% – 6%	3.7%
EBIT	€ 105.5 million	€ 220 million to € 240 million	€ 202.8 million
Development compared to prior period	– 47.6%	Corridor of 5% – 10%	92.2%
EBIT margin	4.2%	High single-digit percentage range	7.8%
EVA	€ 12.9 million	€ 85 – 95 million	€ 64.0 million
Employees	22,424	1% – 6%	23,024
Development compared to prior period	1.4%		2.7%

Our forecast for the growth of our business in the fiscal year is based on the existing services business in operation at the time of planning, and therefore defined as organic growth.

The possible negative effects from the accident in Brazil and effects from the first-time application of IFRS 16 “Leases” were only taken into account for the outlook on fiscal year 2019 to a qualitative extent. In this respect, a deviation, in particular for the projected EVA target, was to be expected.

Despite the sale of a company in Austria, the INDUSTRY Segment achieved its forecast growth. Targeted EBIT growth – based on a low starting point – was exceeded. The EBIT margin also reached the planned upper single-digit percentage range.

The MOBILITY Segment exceeded its defined revenue targets in the fiscal year. The EBIT margin was above the expected corridor. However, planned EBIT was not achieved on account of higher personnel expenses in particular.

The CERTIFICATION Segment was not able to realize the targeted levels of revenue growth. Earnings targets were also not attained. Besides increased personnel expenses resulting from anticipated future market opportunities and higher expenses for IT projects, this was also due to a lower than planned utilization of test laboratories in some markets.

At € 202.8 million, earnings before interest, before other financial result and before income tax, but after income from participations (EBIT), fell short of the expected corridor from a group perspective, primarily due to one-off effects. At 7.8%, the EBIT margin lay within the expected range and above the prior-year EBIT margin (4.2%).

The growth of revenue and slight decline in purchased service cost provided a good foundation for the growth of EBIT. However, this was exhausted in full by the year on year increase in personnel expenses and increased amortization of intangible assets and right-of-use assets and depreciation of property, plant and equipment and investment property. The first-time application of the new lease accounting pursuant to IFRS 16 also had an impact in this regard. Lower other expenses and positive earnings from investments accounted for using the equity method were not able to compensate for these negative effects.

Adjusted EBIT, which is better suited for a multi-year comparison with other companies in the industry, at € 225.9 million was 1.6% above the prior-year figure (€ 222.3 million) and thus, within the forecast range. The adjusted EBIT margin of 8.7% was below the prior year (8.9%), but within the anticipated planning corridor.

Consolidated earnings before taxes (EBT) increased – based on a low prior-year figure – by 94.9% to € 184.4 million and thus exceeded the targeted growth rate. EBT adjusted for one-off effects was in line with the expected figure of € 212.5 million, as was the adjusted EBT margin at 8.2% (prior year: 8.5%).

At € 132.6 million, consolidated earnings after taxes were € 84.4 million above the prior-year level of € 48.2 million and thus once again neared the level seen before the accident in Brazil (2017: € 138.8 million).

At € 64.0 million group EVA is above the prior-year figure (€ 12.9 million), however this is outside of the corridor we had assumed. This is due to the first-time recognition of right-of-use assets from leases and negative effects from the investigation into the dam collapse in Brazil. This key indicator is calculated from the net operating profit after tax (NOPAT) of € 148.3 million, less the Group's cost of capital, yielded by the product of average capital employed (€ 1,204.9 million) and WACC of 7.0%. NOPAT was positively influenced by the development of business from the INDUSTRY and MOBILITY Segments, however it also contains expenses in connection with the dam collapse in Brazil. Average capital employed was € 279.9 million above the unadjusted prior-year figure of € 925.0 million on account of the first-time recognition of right-of-use assets from leases (IFRS 16). The higher NOPAT led to a higher EVA figure. As expected, this was lower than projected in the 2019 forecast on account of the significant increase in capital employed and negative effects in connection with the investigation into the accident in Brazil. Adjusted for these effects, which were taken into account to a qualitative extent in the 2019 planning, the resulting comparable figure would have been within the expected corridor.

The average increase in FTEs from 22,424 to 23,024 is within the lower third of the anticipated range at 2.7%; this was due to the disposal of fully consolidated subsidiaries and targeted job cuts required to respond to local business development.

Planning and management of the TÜV SÜD Group is based on International Financial Reporting Standards (IFRSs). The key financial performance indicators defined for the TÜV SÜD Group are not relevant for TÜV SÜD AG in its function as a management holding company and are therefore not reliable.

## Financial performance

In the fiscal year 2019, TÜV SÜD generated **revenue** of € 2,590.1 million, equivalent to an increase of € 91.6 million or 3.7% compared to the prior year. Consequently, revenue growth was only slightly below the target corridor and we almost achieved our revenue target of € 2.6 billion despite negative portfolio effects.

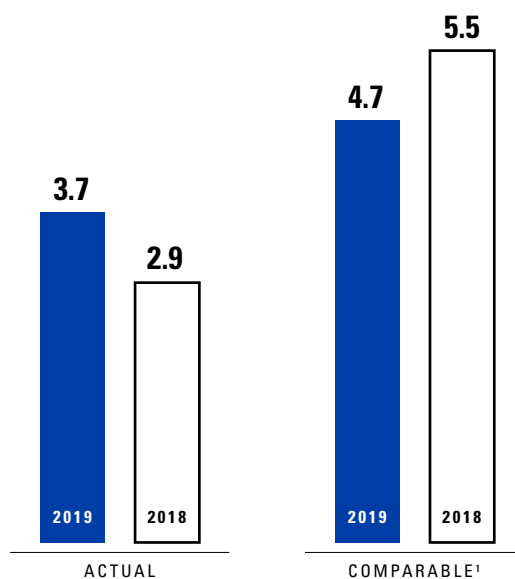
The basis for this was formed by organic growth of our existing service business. Here we generated revenue growth of € 117.5 million or 4.7% and thus achieved an increase in revenue within the targeted range of 4% to 6%. Positive currency effects of € 18.9 million (up 0.8%) also bolstered revenue development. By contrast, the sale of the fleet management business and Signon Austria in the fiscal year, together with the disposals of the German company APZ Auto-Pflege-Zentrum GmbH (APZ), Darmstadt, and the South Korean company TÜV SÜD KOCEN Ltd., Segonam-si, in the prior year led to a negative portfolio effect of 1.8% or € 44.8 million, which we were largely able to compensate for.

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### Revenue growth comparable

11 13

IN %

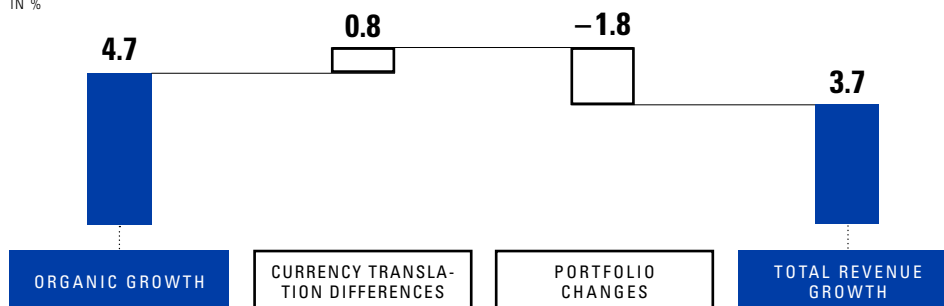


1 \_ Adjusted for exchange rate and portfolio effects.

### Revenue growth 2019

11 14

IN %



Despite the divestitures, the German entities generated most of the revenue growth, with € 55.1 million or 60.1% (prior year: 96.8%). The non-German entities contributed € 36.5 million or 39.9% (prior year: 3.2%) to the revenue increase.

#### Revenue by region 2018/2019 according to customer location

in %



The share of total revenue generated abroad in the fiscal year was unchanged at 41.0% and thus exceeded the long-term target of 40.0%. Our European home market remains the strongest region in terms of revenue.

**Purchased service cost** decreased by 0.2% and developed at a lower rate than revenue. The decline results from the sale of the business for the preparation of vehicles during the second half of 2018. This was counteracted by the expansion of our services relating to vehicle management that require a lot of purchased services and our expanded academy offering in Germany along with general business development in China. At 12.0% (prior year: 12.5%), the ratio of purchased service cost to revenue declined year on year.

**Personnel expenses** rose by 4.2% to € 1,572.9 million. At 68.9%, the ratio of personnel expenses to operating performance was roughly on par with the prior year (68.8%).

Expenses for wages and salaries including social security contributions rose by 4.1% compared to the prior year. Alongside the rise in headcount as a result of new hires, particularly in Germany, the US and China, coupled with collective wage increases in Germany, currency effects also contributed to this increase.

Retirement benefit costs increased by 4.9% to € 107.8 million (prior year: € 102.8 million). This is primarily due to the increased employer's share of pension insurance in Germany on account of the workforce expansion and payments to defined contribution pension funds in Germany and the UK. By contrast, current service costs decreased, in particular due to the lower number of active employees with pension entitlements in Germany and the UK.

Incidental personnel expenses rose by 3.6% to € 28.9 million (prior year: € 27.9 million) on account of increased training activities and higher fringe benefits for our employees in Germany.

**Amortization, depreciation and impairment losses of intangible assets, right-of-use assets from leases, property, plant and equipment and investment property** came to € 150.2 million in the fiscal year, which was an increase of € 68.6 million on the prior year. Scheduled amortization and depreciation of € 145.2 million are € 69.5 million (91.8%) higher than in the prior year (€ 75.7 million). Of this amount, € 62.4 million is attributable to the first-time application of

IFRS 16 Leases. Adjusted for the effects from leases, scheduled amortization and depreciation was € 7.1 million (9.4%) above the prior-year figure due to high levels of investing activities (€ 126.0 million; prior year: € 100.6 million).

Impairment losses were also recognized on property, plant and equipment as well as right-of-use assets and intangible assets that had been capitalized in purchase price allocations. The unsatisfactory business development of individual subsidiaries in Germany, Italy and South Africa along with the US company PetroChem meant that impairments had to be recognized.

There was no **impairment of goodwill** during the fiscal year 2019. In the prior year, impairments totaling € 27.1 million were recognized, in particular on our business activities in Brazil and the fleet management business in Germany, which was held for sale.

**Other expenses** decreased by 22.8% to € 430.8 million. This was primarily due to the first-time application of IFRS 16 and reduced expenses from dealing with the consequences of the dam collapse in Brazil in January 2019. While expenses for rented premises and travel expenses declined compared to amortization and depreciation on account of the new lease accounting, legal and consulting fees and other expenses decreased overall. By contrast, IT costs increased on account of both group-wide and segment specific digitization projects along with expenses for loss allowances on trade receivables in Germany and Spain. Cost of purchased administrative services, which also includes the use of temporary staff, also increased along with expenses for equipment maintenance.

In the prior year, **other income** mostly stemmed from the sale of APZ. As a consequence, this item decreased by 25.2% from € 80.8 million in the prior year to € 60.4 million. Alongside exchange rate gains, income from the reversal of provisions and rental and lease income remained the most significant items.

The **financial result** decreased by € 1.9 million to € –4.9 million in the fiscal year 2019 (prior year: € –3.0 million). The positive contribution to earnings from investments accounted for using the equity method was completely absorbed by the negative interest result.

Earnings from investments accounted for using the equity method increased to € 17.3 million and were significantly above the prior-year level (€ 8.5 million). Despite the unfavorable exchange rate between the euro and the Turkish lira, at € 19.1 million the joint ventures TÜVTÜRK in Turkey delivered a significant positive contribution to earnings. Since the sale of the majority of the fleet management business in October 2019, our remaining stake has also been recognized as a joint venture. Our investments accounted for using the equity method in France and Spain showed positive earnings development, while the German company Uniscon once again recorded a negative contribution to earnings.

The other income/loss from participations includes expenses in connection with the remeasurement of Uniscon in particular. Income from the sale of an investment and from the reversal of impairment losses on non-consolidated companies in Spain and the remeasurement of the remaining minority interest in the fleet management business were not able to compensate for this. Consequently, other income/loss from participations was down by € 3.2 million from € –0.6 million to € –3.8 million.

The interest result declined by € 10.5 million to € –20.8 million in the fiscal year. It was negatively impacted for the first time in the amount of € 6.3 million by interest expenses from lease liabilities. At the same time, the interest rate effect from unwinding the discount on provisions for long-service bonuses and medical benefits at € –2.5 million and the discounting of a loan issued at € –2.5 million also had a negative impact on other interest expenses. However, the net interest expense from pension provisions (unwinding of discount on pension obligations less interest income from plan assets) improved on account of the higher funding ratio of pension obligations. This resulted in a disproportionately large decrease in interest expenses (down € 0.2 million) in relation to planned income (up € 1.4 million).

Other financial result of € 2.4 million largely contains gains and losses from a special fund.

**Income before taxes** came to € 184.4 million. This represents an increase of 94.9% on the prior year. The income tax expense increased by € 5.4 million or 11.6% to € 51.8 million. At 28.1%, the effective tax rate is below the prior-year figure of 49.0% and thus once again within a normal range.

**One-off effects** that were negative on a net basis totaling € 28.1 million (prior year: negative effects of € 116.8 million) had an impact on the development of earnings in the fiscal year: **≡ 06**

<b>One-off effects</b>		<b>≡ 06</b>
IN € MILLION	2019	2018
PPA amortization and impairment losses	10.2	12.2
One-off effects, provisions and reversals of impairments	13.8	99.6
Income from deconsolidation	–4.5	–23.2
Impairment of goodwill	0.0	27.1
One-off effects in income/loss from participations	3.6	1.1
<b>With EBIT effect</b>	<b>23.1</b>	<b>116.8</b>
One-off effect in interest income	5.0	0.0
<b>With EBT effect</b>	<b>28.1</b>	<b>116.8</b>

In **personnel expenses** we corrected the effect of € 2.8 million on the measurement of provisions for long-service awards, which resulted from the raised retirement age.

We recognized adjustments amounting to € 5.8 million in the **amortization of intangible assets**, which we identified in the course of a purchase price allocation (PPA amortization). One-off impairments of intangible assets, such as capitalized customer relationships, amounting to € 4.4 million were also recognized in Germany and South Africa, as well as for property, plant and equipment in the US and Italy. In the prior year, one-off impairment losses totaled € 5.7 million.

**Other expenses** were adjusted for technical advisory and legal costs which were incurred during the year in connection with the dam collapse in Brazil. In the prior year, alongside the provisions for potential obligations due to various liability risks and provisions for technical advisory and legal costs – also in connection with the disposal of entities – losses from the discontinuation of operations in South Korea and Singapore were also eliminated.

Adjustments to **other income** largely relate to the gain on disposal of Signon Austria. In the prior year, this item contained gains on the disposal of APZ and RCI Consultants Inc., Houston, US.

In the prior year, **impairment of goodwill** from the petrochemical business in the US and the fleet management business that was sold in the interim was eliminated along with our activities in Brazil.

**Income/loss from participations** includes expenses associated with Uniscon along with reversals of impairment losses on non-consolidated companies and the gain on disposal of a participation in Spain. In the prior year, the write-down of an Indonesian participation was adjusted.

Alongside the effect from the change in the interest rate on the unwinding of the discount on the provisions for long-service bonuses and medical benefits, we also adjusted the discounting of a loan issued to Uniscon in the **interest result**.

In fiscal year 2019, at € 202.8 million **EBIT** was 92.2% above the prior-year figure of € 105.5 million after having decreased in the prior year by 47.6% or € 95.8 million.

The EBIT margin increased compared to the prior year by 3.6 percentage points to 7.8%. Adjusted EBIT increased by 1.6% to € 225.9 million (prior year: € 222.3 million). The adjusted EBIT margin stands at 8.7% (prior year: 8.9%). This shows that business activities were negatively impacted to a greater extent by operational factors for which adjustments are not to be made, for example the higher than proportional increase in personnel expenses compared to revenue along with higher amortization, depreciation and impairment losses on intangible assets, right-of-use assets from leases, property, plant and equipment and investment property. One-off effects on EBIT totaled € 23.1 million (prior year: € 116.8 million).

**NOPAT** increased by 91.1% to € 148.3 million (prior year: € 77.6 million). Alongside operating performance (up 4.1%), the fact that one-off negative factors such as goodwill impairment did not occur in the fiscal year also had a positive impact. However, even more favorable NOPAT development was prevented by the disproportionately high increase in personnel expenses.

At € 1,204.9 million, **average capital employed** exceeded the unadjusted prior-year figure of € 925.0 million by € 279.9 million. The significant increase in non-current assets due to investing activities and the recognition of right-of-use assets from leases fully offset the decline in working capital. Other interest-bearing liabilities remained almost unchanged at the prior-year level. As of the reporting date, capital employed also showed an increase compared with the prior year (up € 292.0 million).

At € 64.0 million **group EVA** is € 51.1 million above the prior-year figure of € 12.9 million.

At € 184.4 million, **EBT** was above the prior-year level (€ 94.6 million). The adjusted earnings before taxes increased by € 1.1 million to € 212.5 million (prior year: € 211.4 million).

The return on sales, calculated in proportion to earnings before taxes (EBT), stood at 7.1% in the fiscal year (prior year: 3.8%). The positive trend in business development continued in terms of EBT despite a lower financial result compared to the prior year. The adjusted EBT margin, which is more suitable for assessing results over time, declined to 8.2% (prior year: 8.5%) despite the adjustments carried out in the financial result.



→ **NOTES TO THE CONSOLIDATED  
FINANCIAL STATEMENTS,  
NOTES TO THE CONSOLIDATED  
INCOME STATEMENT  
SEE PAGES  
117–122**

In the fiscal year 2019, the **consolidated net income** increased to € 132.6 million, exceeding the prior-year figure of € 48.2 million by € 84.4 million or 100%.

For further analyses of significant items of the consolidated income statement, we refer to the notes to the consolidated financial statements.

## Cash flows

### PRINCIPLES OF FINANCE MANAGEMENT AND FINANCIAL STRATEGY

With our financing activities, we aim always to maintain a sound financial profile while ensuring TÜV SÜD has sufficient liquidity reserves to meet its payment obligations at all times.

Further objectives of our corporate treasury function include managing the foreign exchange risk effectively and optimizing interest rates on an ongoing basis. Due to the significant volume of assets transferred to cover pension obligations, the investment and risk management of these positions is of great importance for us.

### CAPITAL STRUCTURE

TÜV SÜD finances itself with cash flows from operating activities. The available cash and cash equivalents are supplemented by a syndicated credit line of € 200 million, with a term until the end of 2021, to give us the financial flexibility necessary to reach our growth targets. The contract also gave TÜV SÜD the opportunity to extend the credit line in 2018 one last time until the year 2021.

With this credit facility, the available cash and the annual free cash flow, the company has sufficient liquidity to finance its planned organic and external growth.

TÜV SÜD strives to ensure its credit rating remains firmly in the investment grade.

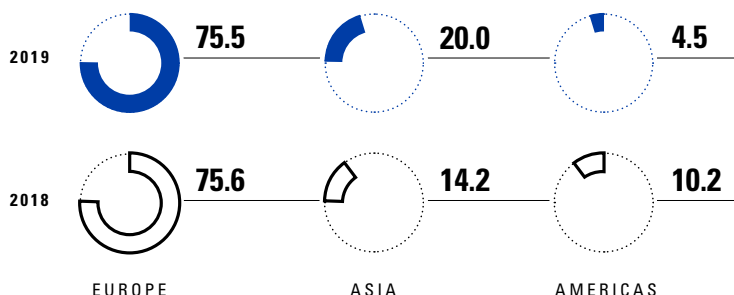
## CAPITAL EXPENDITURES

The volume of capital expenditures excluding business combinations and excluding financial assets and securities came to € 126.0 million in the fiscal year 2019 (prior year: € 100.6 million). 16

### Capital expenditures

IN %

16



At € 77.7 million, more than half of capital expenditures was carried out in our home market Germany. Investments were made in various IT application software but also in innovative software solutions such as the Training PowerHouse project in the Business Assurance Division. We invested further funds to expand the mobility testing facility in Heimsheim, to modernize the technical service centers and investments were made in testing laboratories, including those to perform battery tests and test of electromagnetic compatibility (EMC).

In Western Europe, we invested a total of € 12.5 million, mainly in equipping our research and development center for the calibration of flow pressure instruments near Glasgow, UK. In Central & Eastern Europe, investing activities focused on the MOBILITY Segment. We invested a total of € 4.4 million in expanding the testing facilities for dynamic component testing (DYCOT) and highly automated driving (HAD) as well as modernizing our center for emissions testing.

We are investing € 25.0 million in the ASIA Region, this equates to 20.0% of the total investment volume. Investments were primarily carried out in battery testing and EMC testing facilities along with chemical testing facilities within the Product Service Division. We spent around € 5.6 million or 4.5% of our total volume of investment in the AMERICAS Region. The focus here was also on equipment for the testing laboratories, including for environmental simulation and testing electromagnetic compatibility.

We invested € 18.0 million in the acquisition of entities in 2019 (prior year: € 2.1 million). This includes payments to acquire shares in consolidated and non-consolidated affiliated companies.

As of the reporting date, there were no material investment obligations.

## LIQUIDITY

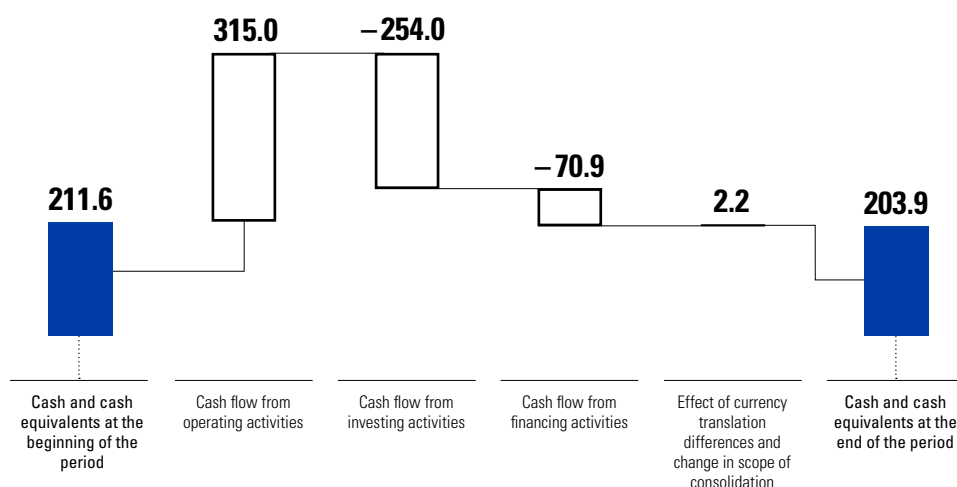
Cash and cash equivalents decreased by € 7.7 million or 3.6% to € 203.9 million in the fiscal year 2019; of this, € 0.6 million is recognized as non-current assets and disposal groups held for sale. Cash and cash equivalents correspond to 8.4% of total assets (prior year: 10.2%). Cash and cash equivalents as presented in the consolidated statement of financial position stand at € 203.3 million. The development of cash and cash equivalents in the fiscal year is presented in detail in the consolidated statement of cash flows.

17

### Liquidity of the TÜV SÜD Group 2019

IN € MILLION

17



Consolidated net income, as the starting point used in the statement of cash flows, stands at € 132.6 million in the fiscal year and was thus € 84.4 million higher than in the prior year (€ 48.2 million), which had been burdened by the provisions in connection with the accident in Brazil.

Gains from the disposal of land in Germany and the earnings from the sale of German and Austrian subsidiaries and a participation in Spain reduced the basis for the statement of cash flows by € 4.6 million (prior year: € 19.1 million). The non-cash items amortization, depreciation, impairment losses and reversals of impairments come to € 153.3 million and were therefore € 40.2 million higher than the prior-year figure of € 113.1 million. Amortization, depreciation and impairment losses include amortization and impairment losses on right-of-use assets due to the first-time application of IFRS 16 in the amount of € 64.1 million. Impairment losses were once again recognized on intangible assets such as customer relationships, and on property, plant and equipment. Other non-cash income and expenses particularly include the rolling forward of the at-equity valuation and the fair value adjustment of an option to acquire further shares in a participation accounted for using the equity method.

The changes in working capital and the other assets and other liabilities resulted in a cash outflow in the fiscal year of € 3.4 million compared to a cash inflow in the prior year of € 52.9 million. The cash tied up in current assets resulted from the general increase in revenue in Germany and China, particularly in the MOBILITY and CERTIFICATION Segments. However, the decline in revenue in the INDUSTRY Segment experienced in the US, Spain and Germany did have an impact. On the equity and liabilities side, cash tied-up was positively impacted due to trade payables, including service contracts not yet invoiced in the CERTIFICATION Segment and other liabilities. The prior year was characterized by the provisions recognized in connection with the dam collapse in Brazil. **Cash flow from operating activities** therefore increased by € 106.8 million or 51.3% from € 208.2 million to € 315.0 million.

**Cash outflow from investing activities** fell by € 3.8 million to € 254.0 million in the fiscal year. Cash paid for investments in intangible assets, and property, plant and equipment increased by € 14.7 million to € 117.7 million (prior year: € 103.0 million). Investments were made mainly in software, technical service centers and testing facilities. Cash received from the disposal of assets primarily relates to the sale of land and software in Germany.

There was a net outflow in financial assets, among other things due to an increase in the shareholding in and an increase in the loan to Uniscon, spending on the acquisition of participations in Germany and China along with the freezing of the funds of TÜV SÜD BRASIL. In the prior year, the change in financial assets was above all influenced by the increase of the loan to Uniscon.

A cash inflow of € 6.8 million was generated from transactions during the year, in particular the sale of the fleet management business and Signon Austria. In the prior year, there was an overall cash inflow of € 10.3 million from the sale of fully consolidated subsidiaries. This was balanced by the acquisition of the operations of the official inspection body for the state of Baden-Württemberg and the payment of the earn-out liability for the Spanish ATISAE group.

The acquisition of securities in a special fund and the liquidation of various different securities investments in China and South Korea resulted in a net payment outflow of € 8.0 million (prior year: € 69.2 million).

The external financing of pension obligations increased by € 21.4 million from € 95.3 million to € 116.7 million. Alongside the reinvestment of pension payments, extraordinary contributions were made to TÜV SÜD Pension Trust e. V. (€ 30.0 million; prior year: € 30.0 million) and TÜV Hessen Trust e. V. (€ 20.5 million; prior year: € 0.0 million).

**Free cash flow** – defined as cash flow from operating activities less cash paid for investments in intangible assets, property plant and equipment and investment property – was € 197.3 million in the fiscal year 2019 (prior year: € 105.2 million). This represents an increase of 87.5% on the prior year. Increases in investments in intangible assets and property, plant and equipment were financed entirely from the higher cash flow from operating activities. At a value of 1.49, the cash conversion rate, which is calculated from the ratio of free cash flow to consolidated net income, is therefore below the prior-year figure of 2.18.

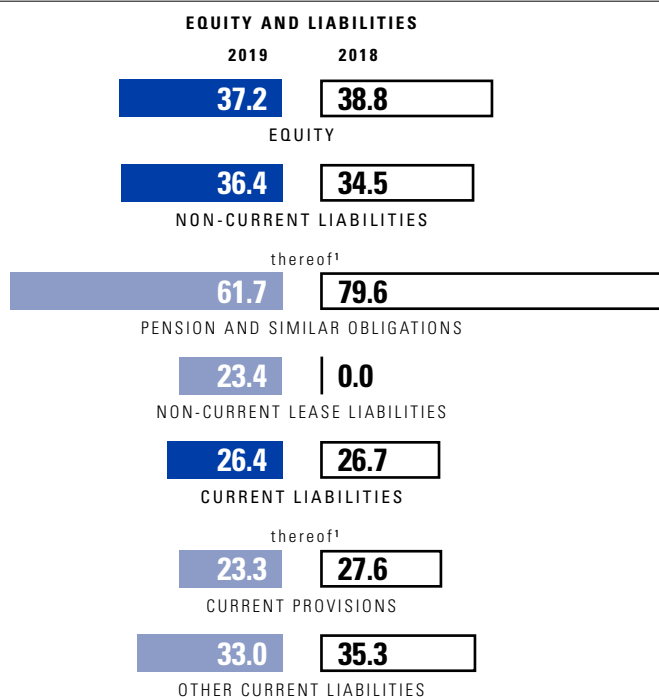
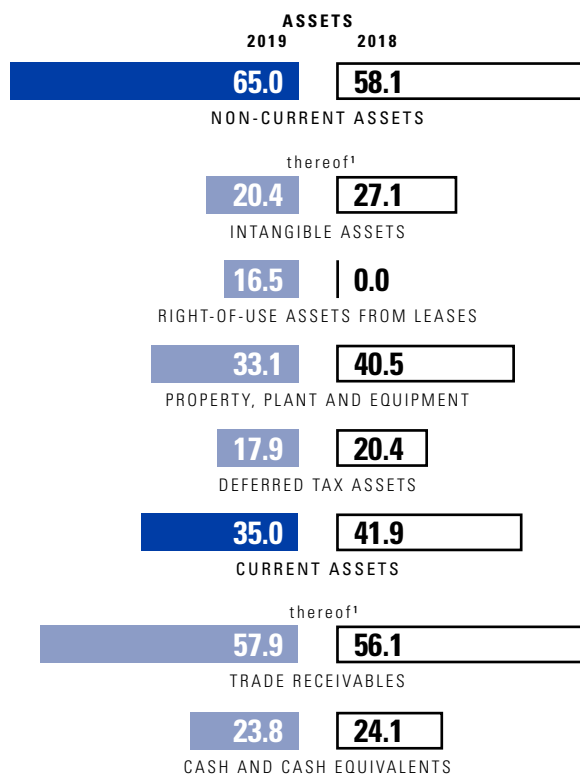
**Cash outflow from financing activities** increased by € 58.4 million to € 70.9 million (prior year: € 12.5 million), largely due to the effect from the first-time application of IFRS 16 “Leases” of € 59.8 million. The dividend distribution to TÜV SÜD Gesellschafterausschuss GbR remained unchanged. Payments to non-controlling interests were almost unchanged on a par with the prior year. On the whole, repayments of loans and other financial obligations were made in the amount of € 3.0 million (prior year: € 0.4 million).

The value of cash and cash equivalents of € 203.9 million – consisting of checks, cash in hand, bank balances and securities with an original term of less than three months and including the cash and cash equivalents of disposal groups – was € 7.7 million lower than the prior-year level. With the securities disclosed in other financial assets which can be liquidated at any time, there are cash and cash equivalents totaling € 323.0 million (prior year: € 323.4 million). Additional financing flexibility is provided by various credit lines (€ 12.9 million) and the existing syndicated loan agreement of € 200.0 million.

## Financial position

### Composition of the statement of financial position of the TÜV SÜD Group: Assets/Equity and liabilities in %

IN %



**TOTAL ASSETS € 2,440.2 MILLION**

**TOTAL ASSETS € 2,071.8 MILLION**

<sup>1</sup> \_ As a percentage of current or non-current item, not of total assets.

## ASSET AND CAPITAL STRUCTURE

Total assets increased by € 368.4 million or 17.8% to € 2,440.2 million in the fiscal year (prior year: € 2,071.8 million). in 18

Non-current assets rose by € 381.5 million to € 1,585.0 million. Current assets decreased by € 13.1 million to € 855.2 million.

**Intangible assets** decreased by € 2.6 million or 0.8% to € 323.0 million. Goodwill decreased due to the reclassification of a fully consolidated subsidiary in Germany to assets and disposal groups held for sale. Other intangible assets are at the prior-year level. Scheduled amortization and impairments of intangible assets, in particular of software and customer relationships, were almost fully compensated for by the extension of a software licensing agreement in Germany.

**Right-of-use assets from leases** were recognized for the first time in line with IFRS 16, which led to a value of € 269.7 million at the time of initial recognition. At year-end, right-of-use assets from leases recognized totaled € 261.1 million; scheduled amortization amounted to € 62.4 million in the fiscal year.

Additions to **property, plant and equipment** related to investments in the expansion and modernization of testing facility capacity in Germany, the Czech Republic, China and the UK. There were also considerable investments in furniture and fixtures, particularly in Germany. The sale of land in Germany reduced the portfolio of **investment properties** by € 0.3 million to € 3.0 million.

**Investments accounted for using the equity method** increased by € 9.2 million to € 48.7 million. After the sale of the majority interest in the fleet management business in October 2019, the company in question will be run together with a strategic partner as a joint venture, the remaining minority interest was reclassified to this item. In addition, the significant contribution to earnings of the Turkish joint ventures TÜVTÜRK led to a significant increase, despite the unfavorable exchange rate. The development of the German company Unicon ran counter to this.

**Other non-current financial assets** increased by € 38.6 million to € 131.9 million, due in particular to the purchase of securities (€ 21.4 million) in the special fund. This item also contains shares in a newly established Chinese company.

The increase in **deferred tax assets** of € 38.6 million to € 284.3 million primarily stemmed from the changes to pension provisions and plan assets.

**Trade receivables** increased by € 8.3 million or 1.7% in fiscal year 2019 to € 495.5 million. Therefore, they developed at a lower rate than revenue growth, which stood at 3.7%. Trade receivables – excluding contract assets – decreased by € 0.3 million or 0.1% to € 368.3 million. The change was for billing-related reasons, primarily from the companies in the US and Spain.

Contract assets increased due to ongoing large contracts in Germany and China by € 8.6 million or 7.2% to € 127.2 million.

As a result of the decision to discontinue or sell the remaining petrochemical business in the US and to sell our planning business for railway systems, the corresponding trade receivables (€ 15.7 million) were reclassified to non-current assets and disposal groups held for sale. This is equivalent to 3.2% of receivables.

Days sales outstanding (DSO), including receivables reported in accordance with IFRS 5, stand at 55 days (prior year: 58 days) on average throughout the Group.

**Other receivables and other assets** decreased by € 3.4 million, from € 104.7 million to € 101.3 million (down 3.2%), mainly due to the liquidation of securities investments in China and South Korea. The position also includes financial derivatives with positive market values.

**Cash and cash equivalents** decreased by € 6.3 million to € 203.3 million. They are therefore equivalent to 8.3% of total assets (prior year: 10.1%).

As of December 31, 2019, **non-current assets and disposal groups held for sale** contained the assets of the planning business for railway systems, for the first time, and the assets of the US company PetroChem.

**Equity** increased by € 102.1 million (up 12.7%) in the fiscal year, and stood at € 906.8 million as of the reporting date. The increase is mainly due to the positive consolidated net income of € 132.6 million (prior year: € 48.2 million). Actuarial losses after taking into account deferred taxes and dividend distributions had the opposite effect. The equity ratio decreased by 1.6 percentage points to 37.2%.

**Non-current liabilities** rose by € 175.9 million to € 889.7 million. The material change resulted from the first-time recognition of non-current lease liabilities according to IFRS 16 (€ 208.6 million).

→ **CONSOLIDATED FINANCIAL  
STATEMENTS,  
CONSOLIDATED STATEMENT  
OF CASH FLOWS  
SEE PAGE  
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**Provisions for pensions and similar obligations** decreased by 3.4% or € 19.5 million to € 548.8 million (prior year: € 568.3 million).

The group-wide defined benefit obligation reported at € 2,256.3 million is € 191.9 million higher than the prior-year figure (€ 2,064.4 million). An increase of € 172.5 million was observed in Germany. Actuarial losses from the change to the discount rate from 1.70% to 0.95% and experience losses exceed the gains from demographic assumptions after the required raising of the retirement age. Pension payments, which exceeded the total of service and interest cost, had the opposite effect. The change outside of Germany (up € 19.4 million) was largely attributable to the lower discount rate and exchange rate losses.

In order to extend the external financing of pension obligations in Germany, TÜV SÜD has transferred operating assets to TÜV SÜD Pension Trust e.V., Munich, and TÜV Hessen Trust e.V., Darmstadt, under a contractual trust agreement. The funds are administered by these two associations in a fiduciary capacity, and serve solely to finance pension obligations. Pursuant to IAS 19, the transferred trust funds are to be treated as plan assets, and are therefore offset against pension obligations. As of the reporting date, the plan assets totaled € 1,707.5 million. Of this figure, € 1,510.1 million was attributable to the trust assets of TÜV SÜD Pension Trust e.V., and € 55.2 million to TÜV Hessen Trust e.V. The remaining plan assets of € 147.2 million consisted mainly of policy reserves due to employer's pension liability insurance and assets for pension plans in other countries.

Across the entire Group, plan assets increased by € 211.4 million. The increase was attributable in particular to the actual return on plan assets in Germany and abroad of € 159.6 million as well as one-off additions in Germany of € 50.5 million. The pension payments made in Germany of € 61.7 million (prior year: € 58.6 million) were recontributed as part of refund entitlements and thus strengthen the plan assets.

Due to the increase in the plan assets, which was higher than the increase in the defined benefit obligation, the percentage of pension obligations funded by plan assets improved overall from 72.5% in the prior year to 75.7% as of the reporting date. In Germany, coverage stood at 75.3% (prior year: 71.9%).

For a detailed presentation of the development of pension obligations and plan assets, please refer to the notes to the consolidated financial statements.

→ **NOTES TO THE CONSOLIDATED  
FINANCIAL STATEMENTS,  
PROVISIONS FOR PENSIONS AND  
SIMILAR OBLIGATIONS  
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**Other non-current provisions** decreased by € 4.0 million to € 107.3 million. These contain provisions for long-services awards and special allowances for long-standing employees, which have increased on account of the change in the interest rate and adjustment of the retirement age. A reclassification (€ 9.8 million) to current provisions led to a decline in this item, under which the non-current portion of the provisions in connection with the dam collapse in Brazil is also recognized. It is not yet possible to recognize a possible insurance refund claim relating to this.

**Other non-current liabilities** fell by € 7.1 million to € 0.1 million. This item largely contains a put option from the sale of a share in South Africa, which has now been reclassified to current liabilities.

**Current liabilities** increased by € 90.4 million to € 643.7 million, in particular due to the first-time recognition of short-term lease liabilities pursuant to IFRS 16 (€ 55.2 million) and higher trade payables.

**Current provisions** mainly relate to bonus obligations to employees, severance payments, provisions for legal and advisory costs and restructuring provisions.

The volume of **trade payables**, including contract liabilities, increased by € 30.7 million to € 181.3 million. This change was driven by the increase in trade payables in Germany for billing-related reasons, while contract liabilities increased in particular in China, Singapore and the US. Advance payments have also been reported in this position since the implementation of IFRS 15 "Revenue from Contracts with Customers".

**Other current liabilities** increased by € 17.1 million to € 212.3 million. Among other things, these include obligations to employees for vacation and overtime, as well as obligations for outstanding invoices. Other liabilities increased predominantly due to the outstanding purchase price payment for TÜV SÜD Föderation GmbH, Munich, which was acquired as of December 31, 2019.

**Liabilities directly associated with assets and disposal groups held for sale** mainly include other current liabilities attributable to the petrochemical business and the planning business for railway systems.

## SUMMARY REVIEW OF THE SITUATION

2019 met our expectations in terms of revenue development. Organic revenue growth was within the target corridor of 4% to 6%, the projected revenue target of € 2.6 billion was almost reached. All this was achieved despite the sale of some fully consolidated subsidiaries. Development was supported by positive currency effects and the organic growth of existing companies in particular.

All segments made a positive contribution to the growth of the Group's revenue. With the exception of the AMERICAS Region, the regions, including our core market of Germany, saw positive revenue development.

The decline in purchased services had a positive impact on EBIT development, as did the lower level of other expenses compared to the prior year, which were burdened to a far lesser extent by technical advisory and legal costs than in the prior year. The overall favorable development of income from investments accounted for using the equity method also contributed to the EBIT increase. By contrast, increased personnel expenses and higher amortization and depreciation ultimately prevented projected EBIT from being reached. The EBIT margin rose to 7.8% (prior year: 4.2%). Despite adjustments made on a small scale, adjusted EBIT (€ 225.9 million) developed positively and thus within the target range of € 220 million to € 240 million. The adjusted EBIT margin stood at 8.7% and is thus below the prior-year figure of 8.9%.

There was also an increase in earnings before taxes (EBT) after adjusting for one-off effects. However, at 8.2% the adjusted EBT margin is also below the prior-year level (8.5%).

The substantial investment plans, securities investments and the one-off additions to pension assets have been financed exclusively from the cash flow from operating activities. Consequently, cash and cash equivalents are almost at the prior-year level.

TÜV SÜD still has comfortable liquidity secured thanks to our good credit ratings and the existing syndicated credit line.

This is how we fulfil our mission today and in the future. We protect people, the environment and assets around the world while maintaining neutrality and objectivity. To this end, we develop and use high-quality, innovative and sophisticated services for virtually all sectors. In doing so, we lay the foundation for TÜV SÜD's success – today and in the future.

## Comments on TÜV SÜD AG

In addition to reporting on the TÜV SÜD Group, we explain below the financial performance and position of TÜV SÜD AG's annual financial statements in accordance with German GAAP.

TÜV SÜD AG is the management holding company of TÜV SÜD Group. In the fiscal year 2019 the Group comprised a total of 49 (prior year: 47) German and 119 international entities (prior year: 123). In addition to providing support to the participations, TÜV SÜD AG provides central services, in particular in the areas of legal, HR, finance and controlling, innovation, organization, as well as sales and marketing. Via an agency agreement with TÜV SÜD Business Services GmbH, Munich, the real estate owned by the company is leased at arm's length prices, primarily to subsidiaries within the TÜV SÜD Group. Thus, the economic development of TÜV SÜD AG depends on dividend distributions and profit and loss transfer agreements of the participations, income from the leased real estate, income from investments, income from charges relating to trademarks, offsetting between divisions and regions, charges of company-specific holding services, as well as management and other services.

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## FINANCIAL PERFORMANCE

### Income statement of TÜV SÜD AG

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IN € MILLION

	2019	2018
<b>Revenue</b>	<b>114.7</b>	<b>103.5</b>
Total operating performance	114.7	103.5
Other operating income	270.1	6.9
Cost of materials	-29.7	-25.8
Personnel expenses	-32.4	-34.4
Amortization, depreciation and impairment losses	-8.6	-8.6
Other operating expenses	-92.9	-150.3
<b>Financial result</b>	<b>151.5</b>	<b>11.3</b>
Income taxes	-4.7	-19.9
<b>Earnings after taxes = net income for the year (prior year: net loss for the year)</b>	<b>368.0</b>	<b>-117.3</b>
Profit carried forward	0.1	119.5
<b>Retained earnings</b>	<b>368.1</b>	<b>2.2</b>

TÜV SÜD AG's total operating performance increased by € 11.2 million or 10.8% to € 114.7 million in the fiscal year 2019. Income realized from the management services charged to subsidiaries rose due to the increase in cost allocations in Germany and abroad, as well as the favorable development of revenue.

Other operating income increased by € 263.2 million and thus by more than 100% to € 270.1 million. This results in particular from the merger of TÜV SÜD Umwelt GmbH, Munich, and its subsidiaries at fair value.

Personnel expenses decreased by € 2.0 million or 5.8% to € 32.4 million, retirement benefit costs declined in particular on account of the change to demographic assumptions on the retirement age.

The amortization and depreciation of intangible assets and property, plant and equipment was on a par with the prior year at € 8.6 million.

Other operating expenses decreased by € 57.4 million or 38.2% to € 92.9 million. This item continues to be impacted by ongoing technical advisory and legal costs along with additional provisions in connection with the dam collapse in Brazil.

The financial result increased by € 140.2 million to € 151.5 million, primarily due to the considerably higher return on plan assets. In addition, the contributions to earnings by subsidiaries with profit and loss transfer agreements were above the prior-year level and our Turkish joint ventures made a positive value contribution despite negative currency effects (€ 6.3 million, prior year: € 4.5 million).

Income and expenses related to the CTA are presented net in the interest result. CTA investments generated income of € 147.4 million (prior year: € 29.6 million) in the fiscal year. A gain was also realized from interest rate and currency hedging.

The operating result, defined as earnings before taxes and the financial result, at € 221.1 million was above the prior-year figure of € – 108.7 million.

Taxes on income resulted in a € 15.2 million lower tax expense of € 4.7 million (prior year: € 19.9 million). This is due to higher tax additions to pension provisions in the TÜV SÜD AG tax group along with lower taxable income in connection with the Oktagon fund.

The € 368.0 million net income for the year is € 485.3 million above the prior year's net loss of € 117.3 million.

The TÜV SÜD Group is managed using performance indicators based on figures prepared in accordance with IFRS. These are not relevant to TÜV SÜD AG's separate financial statements as the Group parent.

TÜV SÜD AG's net result for the year in accordance with German GAAP is primarily influenced by the financial result, which depends on the interest rate as well as on the profit distributions from subsidiaries.

## NET ASSETS

### Statement of financial position of TÜV SÜD AG

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IN € MILLION	Dec. 31, 2019	Dec. 31, 2018
<b>Assets</b>		
Intangible assets	13.0	4.7
Property, plant and equipment	105.4	104.1
Financial assets	1,092.0	917.2
<b>Fixed assets</b>	<b>1,210.4</b>	<b>1,026.0</b>
Receivables and other assets	66.5	37.0
Cash and cash equivalents	61.0	80.9
<b>Current assets</b>	<b>127.5</b>	<b>117.9</b>
<b>Prepaid expenses</b>	<b>2.1</b>	<b>2.3</b>
<b>Excess of covering assets over pension and similar obligations</b>	<b>314.7</b>	<b>168.1</b>
<b>Total assets</b>	<b>1,654.7</b>	<b>1,314.3</b>
<b>Equity and liabilities</b>		
Capital subscribed	26.0	26.0
Capital reserve	124.4	124.4
Revenue reserves	405.1	405.1
Retained earnings	368.1	2.2
<b>Equity</b>	<b>923.6</b>	<b>557.7</b>
Tax provisions	14.0	9.9
Other provisions	113.1	101.3
<b>Provisions</b>	<b>127.1</b>	<b>111.2</b>
<b>Liabilities</b>	<b>604.0</b>	<b>645.4</b>
<b>Total equity and liabilities</b>	<b>1,654.7</b>	<b>1,314.3</b>

Within fixed assets, intangible assets increased primarily as a result of the conclusion of a software licensing agreement. The increase in property, plant and equipment largely results from investments in the mobility testing facility in Heimsheim. The acquisition of TÜV SÜD Föderation GmbH, Munich, and the shares of subsidiaries in Germany transferred as part of the merger of TÜV SÜD Umwelt GmbH, Munich, led to a higher amount of financial assets. The capital reductions at TÜV SÜD Asia Pacific Pte. Ltd., Singapore, and TÜV SÜD China Holding Ltd., Hong Kong, had an offsetting effect.

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Receivables and other assets rose by € 29.5 million to € 66.5 million, mainly due to receivables from affiliated companies relating to in-house cash transactions (cash pool).

The excess of covering assets over pension and similar obligations increased by € 146.6 million to € 314.7 million on account of the favorable development of the participation held in the Oktagon fund and the PT “Alternatives” SICAV-FIS S.A.

An increase of € 4.1 million to € 14.0 million was recorded for tax provisions resulting from adjustments to tax liabilities for prior years.

Other provisions increased by € 11.8 million to € 113.1 million. They contain provisions for various liability risks and technical advisory and legal costs that are expected for coming years as a result of the accident in Brazil. It was not yet possible to recognize a possible insurance refund claim.

The year on year decrease in liabilities of € 41.4 million to € 604.0 million largely results from repaid loan obligations in particular by TÜV SÜD Asia Pacific Pte. Ltd., Singapore, and TÜV SÜD Energietechnik GmbH Baden-Württemberg, Filderstadt.

## **CASH FLOWS AND CAPITAL STRUCTURE**

Our financial management aims to maintain solvency at all times and continuously optimize liquidity.

Cash and cash equivalents came to € 61.0 million, which is significantly lower than the figure for the prior year (€ 80.9 million). The transfer of € 30.0 million to the CTA, and the settlement of liabilities for subsidiaries was a key factor in this regard. Payments by the subsidiaries from operating activities, which flowed to TÜV SÜD AG via the cash pool, had an offsetting effect.

Equity increased by € 365.9 million to € 923.6 million. The increase corresponds to the net income for the year of € 368.0 million less the dividend payment of € 2.1 million to TÜV SÜD Gesellschafterausschuss GbR, Munich. Together with the profit carried forward from the prior year, retained earnings come to € 368.1 million.

Total assets increased by € 340.4 million to € 1,654.7 million. The equity ratio increased from 42.4% to 55.8%.

## **OVERALL STATEMENT ON TÜV SÜD AG'S SITUATION**

The fiscal year 2019 was in line with the expectations of the Board of Management. Revenue and liquidity developed in line with our forecast.

Going forward, TÜV SÜD AG will continue to depend on the business development of its subsidiaries. The discount rate for the pension obligations and the covering assets influence earnings as external factors. The Board of Management of TÜV SÜD AG expects the financial position and cash flows to remain stable in the future. The dividend distribution is ensured for the coming years.

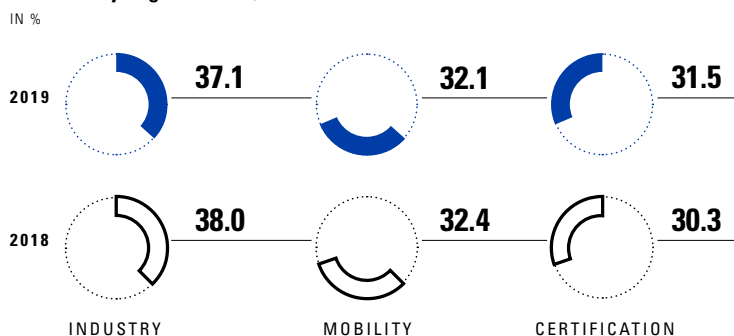
## Segment report

In an economic environment characterized by political uncertainty and technological changes, all operating segments continued to grow in the fiscal year 2019.

19

### Revenue by segment 2018/2019<sup>1</sup>

19



1 \_ Without OTHER and reconciliation.

### INDUSTRY

The 7,453 employees (FTE average) of the INDUSTRY Segment generated revenue of € 960.8 million. This is equivalent to 37.1% of consolidated revenue. The development of revenue (up 1.1%) was in line with our expectations; the projected revenue growth was achieved.

The **Industry Service Division** still makes the greatest contribution to the segment's revenue, with a share of around 60%. An increase in revenue (up 0.3%) was recorded in the fiscal year. There was a negative impact on business development in particular due to the temporary suspension of our experts in certain Spanish provinces, the discontinuation of selected services after sharpening our product portfolio and – owing to the uncertainties surrounding Brexit – delays in awarding projects in the UK. In addition, the market environment for our petrochemical services in the US remains challenging, as does the market for conventional power generation in Germany.

By contrast, positive impetus for growth came from pipeline projects in Germany and from our services for mobile constructions, in particular in amusement parks in Germany and the Middle East. The innovative sound emission inspection also recorded very good revenue growth.

Around 40% of revenue in the segment was generated by the **Real Estate & Infrastructure Division**. The focus remained on the inspection of lifts and buildings in Germany and internationally in Spain, the Middle East and China. The order situation in the UK remained at a low level due to the political uncertainty. Growing trends such as energy-efficient and sustainable buildings fueled growth. Despite the sale of Signon Austria, revenue growth in the division was around 2%.



At € 86.9 million, EBIT in the INDUSTRY Segment was 34.5% above the prior-year figure of € 64.6 million, which was negatively impacted by impairment losses at subsidiaries and the provisions recognized for technical advisory and legal costs. The increase in EBIT that was achieved thus exceeded our expectations. On the basis of a slight increase in revenue and supported by lower personnel expenses, the development of EBIT was negatively impacted by higher amortization and depreciation resulting inter alia from the first-time application of the new lease accounting.

The EBIT margin stands at 9.0% (prior year: 6.8%) and is in line with the projected target margin.

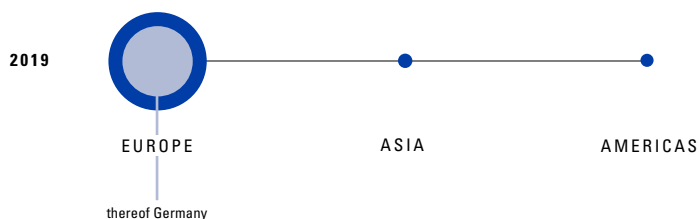
Segment assets increased by € 41.3 million to € 543.9 million (prior year: € 502.6 million) and resulted mainly from the first-time recognition of right-of-use assets from leases.

€ 16.6 million was invested in, among other things, the completion of a research and development center for the calibration of flow pressure instruments near Glasgow, UK.

31 20

#### Revenue by region – INDUSTRY

31 20



#### MOBILITY

With 6,121 employees (FTE average), the MOBILITY Segment generated revenue of € 830.6 million in the fiscal year. This is equivalent to 32.1% of consolidated revenue. The increase in revenue of € 21.1 million or 2.6% is in line with our expectations.

We achieved revenue growth once again with our core business of roadworthiness tests and exhaust gas analyses. In Germany, we performed more than 5.7 million roadworthiness tests and thus expanded our market share further. The development was also supported by price adjustments. An increase in volume was also achieved in Turkey, while the market in Spain stagnated. We continued on our internationally oriented growth trajectory with the business in damage assessment reports. Due to the sale of the fleet management business, there was a decrease in revenue from services relating to fleet management. Our homologation services were in demand particularly in Germany, the Czech Republic and China, although downtimes in Germany due to the implementation of the Worldwide Harmonized Light-Duty Vehicles Test Procedure (WLTP) had to be compensated for. There was also positive growth in medical/psychological services, which we offer exclusively in Germany.

The business model in the MOBILITY Segment is partly geared to franchising as a growth driver. At 14.0% (prior year: 15.1%), the ratio of purchased service cost to revenue is thus above the group-wide ratio of purchased service cost to revenue of 12.0%. The decrease in the fiscal year results from the sale of the business for the preparation of vehicles in the prior year. At € 71.1 million, EBIT did not reach the level anticipated. EBIT development was impacted by higher personnel expenses – as a result of collective pay increases and provisions for long service awards – and higher IT expenses. This could not be offset by the positive contribution to earnings from the joint ventures TÜVTÜRK in Turkey.

As of the reporting date, segment assets came to € 442.6 million (prior year: € 372.6 million). Within fixed assets, the effect from the sale of the fleet management business was more than offset by the first-time recognition of right-of-use assets from leases. In addition, trade receivables and other receivables increased the working capital.

In 2019, € 25.4 million was invested in, among other things, the ASPro IT application system, innovative software products such as DVS Visual AI, a software for the automated detection of damages, as well as the modernization of the technical service centers and the mobility testing facility in Heimsheim.

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#### Revenue by region – MOBILITY

» 21



## CERTIFICATION

The CERTIFICATION Segment contributed 31.5% to consolidated revenue (€ 817.1 million). The average headcount (FTE average) in this segment was 7,338 in the fiscal year 2019. With an increase in revenue of € 60.0 million or 7.9%, the expected growth rate was not achieved; however, the absolute revenue generated was within the planned corridor.

The **Product Service Division** generated around two thirds of the segment's revenue. It also made the biggest absolute contribution to the increase in the segment's revenue, with revenue growth of 10.4%. Our focus markets are Germany, China and the US. Consumer goods audits and certifications were in demand particularly in China and Germany. The trade dispute between China and the US as well as the uncertainties surrounding Brexit led to a shift in demand and created price pressure in the market. In the industrial goods sector, we are positioning ourselves as a solution provider for electromobility, connected mobility and global market access. The highest revenue growth in this sector was generated in Germany, China and the UK, with our services relating to battery testing recording strong growth. As the largest Notified Body, we benefit from the growth of the global medical market in all countries. The small number of available Notified Bodies for testing in accordance with the European Medical Device Regulation (MDR) led to a considerable increase in demand on the European market. We also benefited in the US from the increasing requirements for the security of medical products. Testing of food and cosmetic products saw a positive development particularly in ASMEA as well as Brazil.

The **Business Assurance Division** recorded a positive development in revenue (up 3.1%), with most of the revenue being generated in Germany (around 65%). The portfolio of services relating to quality, environmental, energy and IT security management systems contributes significantly to the division's revenue. As expected, the positive trend from the audits of the two management system standards ISO 9001 and IATF 16949 in the prior year could not be continued, resulting in a slight decline in revenue. By contrast, the academy business recorded strong growth. Germany remains our core market in this respect, with a contribution to revenue of more than 90%, primarily in the open seminars area. Global market penetration is steadily growing, with initial revenue generated in Japan, South Korea and the US. Cyber Security Services is growing steadily. Apart from Germany, these services were in demand particularly in Eastern Europe and China.

Purchased services in the segment developed at a lower rate than revenue. The ratio of purchased service cost to revenue is 15.8% (prior year: 16.5%), due in particular to the customary commissioning of external service providers in the academy business. Personnel expenses and amortization and depreciation increased at a faster rate than revenue. Personnel expenses increased in particular in Germany, as a result of collective pay increases, China, the UK and the US. The first-time amortization of right-of-use assets from leases impacted on amortization, depreciation and impairment losses. In other expenses, IT costs in particular rose due to spending on innovation projects. EBIT in the CERTIFICATION Segment amounted to € 65.8 million; the EBIT margin achieved was 8.1%. Both figures fell short of the projected targets.

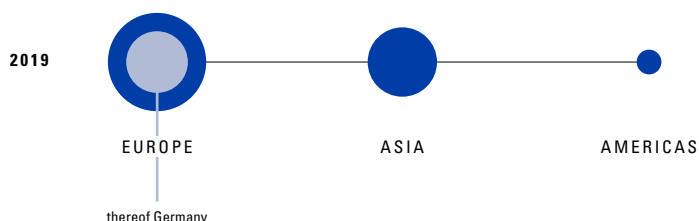
Segment assets increased to € 452.0 million. This is equivalent to an increase of € 79.8 million compared to the prior year. The development was due to investments in fixed assets, including the first-time recognition of right-of-use assets from leases, and increased billing.

The investment volume in the segment amounted to € 41.4 million. The focus was on the expansion of the network of testing laboratories in China and Germany as well as the development of software solutions.

22

#### Revenue by region – CERTIFICATION

22



#### OTHER

In OTHER, we report on the corporate functions, where revenue amounted to € 33.6 million in the fiscal year.

EBIT in OTHER amounted to € –21.2 million in the fiscal year and is thus at a level comparable to 2017 (€ –22.6 million), after the prior year had been burdened by the provisions recognized in connection with the dam collapse in Brazil and decreased to € –104.5 million. Segment assets increased in 2019 by € 123.7 million from € 260.0 million to € 383.7 million. Besides the first-time recognition of right-of-use assets from leases, investments in software and financial assets also contributed to this increase.

For an overview of the development of revenue in the segments, including OTHER, and in the regions, please refer to segment reporting in the notes to the consolidated financial statements.

# NON-FINANCIAL PERFORMANCE INDICATORS

## Employee report

The motivation, expertise and skills of our employees lay the foundation for the ongoing and long-term development of the company, both today and in the future. At year end 2019, TÜV SÜD employed over 25,000 people (prior year: more than 24,000), roughly half of whom worked outside Germany. We anticipate that headcount will also further increase over the coming years. In Germany, the average age of our employees is around 44.7 years, making them older than their colleagues in other countries (38.9 years). The average period of company affiliation in Germany (11.3 years) is also higher than in other countries (6.6 years). Voluntary fluctuation across the Group came to 7.3% in 2019, which is above the figure for the prior year (6.0%). Turnover in Germany remained at a comparatively low level at 3.6% (prior year: 3.5%). An increase to 11.3% was observed outside Germany (prior year: 8.3%).

### CHANGES IN HEADCOUNT

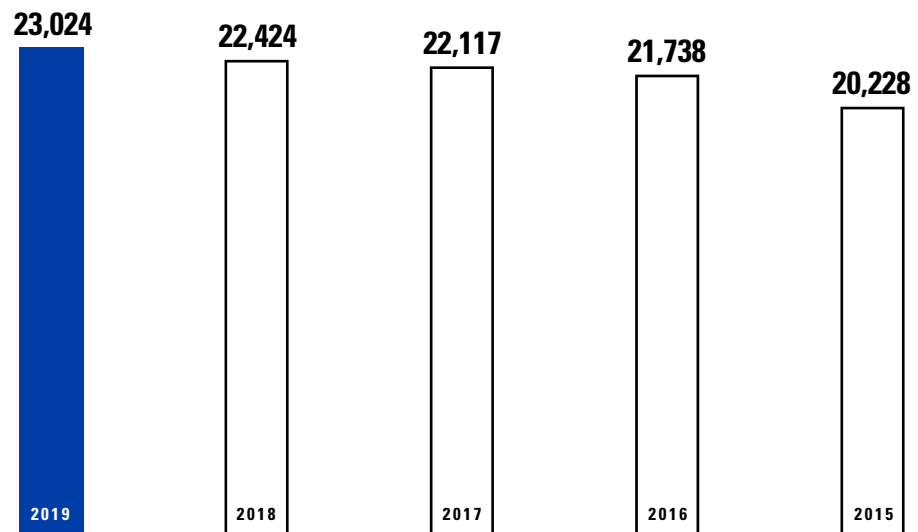
The average number of employees in 2019 was 23,024 FTEs, which is a slight increase of 2.7% in comparison to the prior year (22,424 FTEs). An increase of 4.3% was observed in Germany and 1.1% outside of Germany.

23

#### Employee development

EMPLOYEE CAPACITY ON AN ANNUAL AVERAGE

23



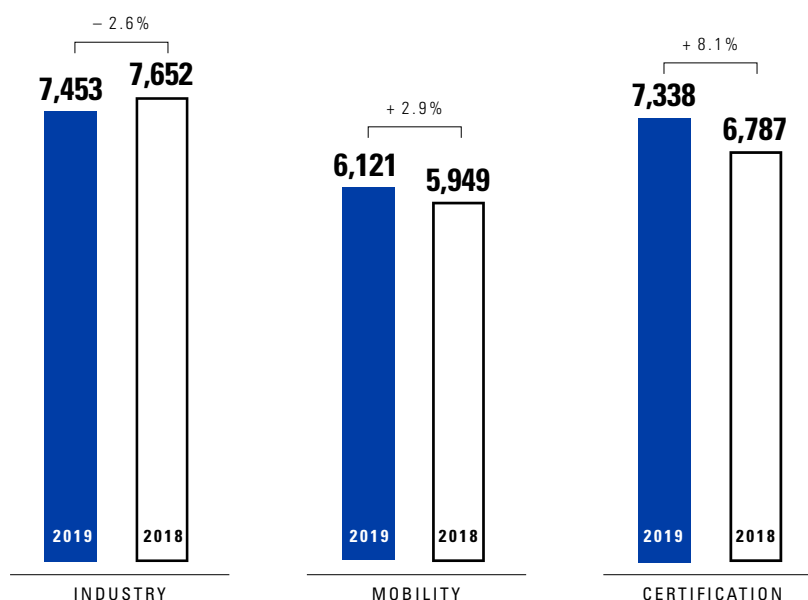
As of December 31, 2019, 23,051 employees (FTE) were employed by TÜV SÜD (prior year: 22,530). In Germany, 433 new jobs were created in the existing companies. Headcount outside Germany increased by 88 FTEs. This change takes into account the reduction of the workforce in connection with the sale of entities (228 employees, prior year: 338 employees) in Germany, Belgium, France, Finland and Austria.

## CHANGES IN HEADCOUNT IN THE SEGMENTS AND REGIONS

### Changes in employee capacity 2018/2019 by segment

ON AN ANNUAL AVERAGE

lit 24



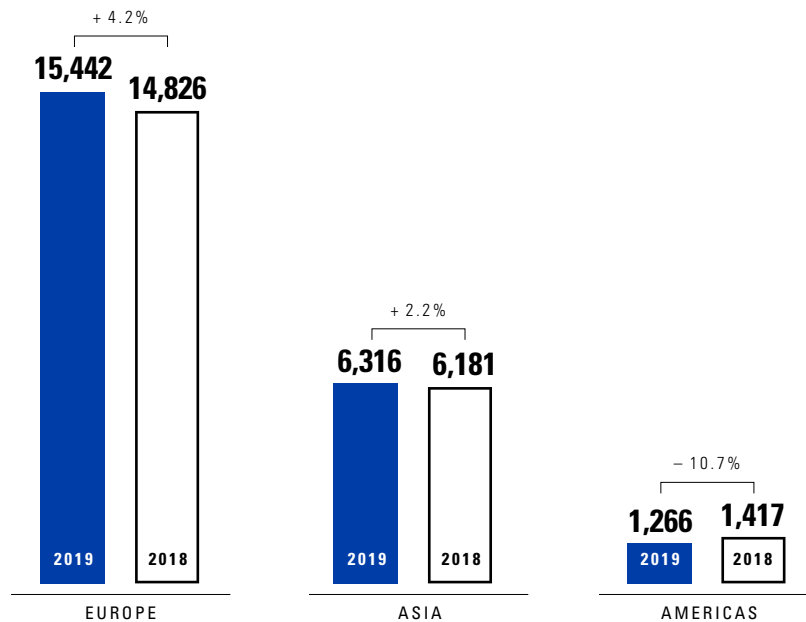
The reduction in headcount in the INDUSTRY Segment related in particular to our presence in Brazil and South Africa, where the weak order situation in the respective markets was taken into account. Reduced headcount continued in the US as part of the restructuring of the petrochemicals business. Despite a decline in the number of employees, the INDUSTRY Segment continues to have the largest number of employees. The increase in headcount in the MOBILITY Segment was mainly in Germany. The CERTIFICATION Segment continued the targeted expansion of its workforce in the fields of consumer goods and medical products. The expansion of the global network of testing facilities also continued.

lit 24

## Changes in employee capacity 2018/2019 by region

in 25

ON AN ANNUAL AVERAGE



More than half of the total TÜV SÜD workforce is employed outside Germany. We expanded our workforce in the EUROPE Region. The focus of recruitment activities was on our home market Germany, where the effect from the sale of the fleet management business was offset in full. The number of jobs in the ASIA Region was slightly higher than in the prior year. Job cuts in the AMERICAS Region continued in response to the persistently weak order situation in Brazil and the structural realignment of the petrochemical business in the US.

in 25

\* The content of this section is voluntary and, therefore, has not been audited, but critically read by the auditor.

## HR STRATEGY AND CORPORATE CULTURE\*

As part of our HR Strategy 2025 we want to promote a culture of collaboration at TÜV SÜD, and allow it to develop into a tangible benefit for our employees and managers in combination with a clear focus on our customers.

In light of this, we launched a wide-ranging culture initiative. As our markets change, our way of working has to change too – across all borders and hierarchical levels, towards a corporate culture that is embraced by all employees. This change process is being shaped by all regions across the globe. In the fiscal year 2019, we held almost 40 workshops, which were attended by approx. 600 employees from all divisions and regions. By year end, this had produced a target vision, which will shape future collaboration at TÜV SÜD.

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The employee survey in 2019 also showed us that there has been a positive response to our corporate culture and areas such as leadership, further development, working conditions and employee satisfaction. It was conducted for the first time across all TÜV SÜD regions and divisions. Improvements were seen in virtually all areas in comparison with the survey conducted in 2015 and there were no significant deteriorations in the results. The trusting working relationship with direct management along with high levels of satisfaction with the opportunities available to put the employees' own experience and skills to use in their work were particularly well received. As we process the findings, improvement measures will be discussed, agreed and implemented globally and across all levels.

## GLOBALLY ATTRACTIVE EMPLOYER

Extrapolations show that only a smaller part of our global workforce will stay the same in the future. The planned expansion of capacity and average turnover at a normal level will lead to approx. 30,000 new employees needing to be recruited over the coming ten years on account of the size of the company. These people must be identified, carefully selected and given specialist training. Our HR strategy defines the specific areas that need to become even more efficient and effective. Focal points include strategic planning, a structured approach in an applicant-centric recruitment process, the use of modern technology and the promotion of the recruitment of international talent and mobility as well as positioning TÜV SÜD's employer brand. Gaining a reputation as an attractive employer and the ability to attract qualified personnel to the company are increasingly becoming key competitive factors.

TÜV SÜD has been one of Germany's top-ranked employers for many years now, and we have also gained an outstanding reputation outside Germany. According to a study conducted by the business magazine "Actualidad Economica" in 2019, TÜV SÜD is once again among Spain's top 100 employers. In Asia, we were able to further reinforce our strong position among the best employers. In the fiscal year, we once again received the "100 Excellence Employer of China 2019" award for exemplary HR management.

## DIGITIZATION

We systematically take advantage of the possibilities offered by digitization in order to ease the burden of routine work from staff in HR and offer management a reliable basis on which to make decisions in HR matters. The HR Dashboard provides an overview of the key indicators and shows the development of the turnover rate or age structure, for example. High levels of transparency allow potential problems to be recognized at an early stage or even avoided.

We particularly made use of the possibilities offered by digitization and artificial intelligence (AI) for our recruitment in China. An algorithm supports HR employees there when pre-screening applicants. The corresponding pilot project was launched in 2019 and is to be further expanded through 2021.\*



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Division heads and HR are also working on integrated staffing planning in order to be able to plan and cover staffing requirements in a more targeted manner. This systematic and data-supported process, which also incorporates the respective market data, provides a basis for a demand-based forecast in order to introduce corresponding measures to attract and retain employees. An initial pilot got underway in the Real Estate & Infrastructure Division in 2019 and will continue in 2020. The aim is to put this structured and demand-based approach into action in coming years with further business units, progressively ramping it up until it is used globally by 2025.

## HR DEVELOPEMENT

HR development plays a crucial role against the backdrop of the digital revolution and our clear focus on the customer. A wide range of learning opportunities need to be created in order to be able to successfully master the new challenges and tasks. To this end, we want to use all available resources and especially all the possibilities offered by digitization to develop those employee skills that are crucial to the implementation of the company's strategy as efficiently as possible. We view integrated learning platforms and specific further training offerings as a key success factor in this regard.

Besides offerings that are open to all employees, there are also some offerings targeted at certain groups of employees such as senior experts or managers in order to prepare them in the key skills they will need to tackle digital challenges. Innovation, product development and a customer-orientation are as much a focus as change management and knowledge sharing.

Overall, in the fiscal year 2019 our employees attended approx. 67,700 days of training (prior year: approx. 64,400 days).

## VOCATIONAL TRAINING SECURES THE FUTURE

The training of young people is of great importance to TÜV SÜD and it offers a range of internships, placements where students can complete their thesis, cooperations with universities, traditional traineeships and combined degrees. During the fiscal year 2019, 127 (prior year: 155) trainees started their careers at TÜV SÜD in Germany. This year, cooperative courses of study were once again offered in partnership with renowned educational institutions, particularly in the fields of mechanical, electrical and automotive engineering. TÜV SÜD always seeks to retain as many graduates as possible, and to train them within the company as test engineers or certified experts.\*

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## DIVERSITY

TÜV SÜD promotes diversity and equality of opportunity. Everyone in the company should have the same opportunities to develop personally and professionally.

As part of the Group's Gender Balance initiative, which is part of our efforts to promote diversity at the company, we have been working since 2016 to significantly increase the proportion of women in specialist and management careers. The focus is on creating the conditions and structures and providing impetus for a diverse and inclusive corporate culture. This is helped by strategic development programs and the expansion of the work-life-balance program.

The proportion of women at the highest level of management (excluding the Board of Management) rose to 9.1% in 2019 at a global level (prior year: 7.5%). At 10.3%, the proportion of women one level below is slightly above the prior-year level (9.7%). Group-wide, women made up 31% of the total workforce in the fiscal year (prior year: 31%), with the proportion at TÜV SÜD's international locations (33%) being slightly higher than in Germany (29%) (prior year: 33% and 29% respectively). This can be partly attributed to the fact that the number of women studying scientific subjects in Germany is still relatively low, and TÜV SÜD recruits most of its workforce from this field.

## WORK-LIFE-BALANCE

Reconciling the demands of career and family is a key element of our HR policy and simultaneously an important aspect of our corporate social responsibility. To this end, for some years now we have offered our employees a wide range of programs, which we are constantly adding to. The services offered range from generally accessible information and specific support such as reserved daycare and kindergarten spaces and holiday/emergency care to a large number of working hours models and mobile working. We also look at the topic of work-life-balance against the backdrop of growing numbers of people requiring care. Employees can access this range of offerings through a dedicated online portal, which also serves as an information hub. To continuously optimize our commitment, we have regularly participated in the "berufundfamilie" audit since 2009.\*

09

### Reconciling the demands of career and family<sup>1</sup>

09

	2019	2018
Employees on parental leave	801	700
Percentage of employees in part-time employment during parental leave	25.1%	25.1%
Total percentage of employees in part-time employment	19.6%	19.6%
Average duration of parental leave	4.0 months	4.6 months
Thereof women	14.7 months	12.4 months
Thereof men	1.3 months	1.8 months

<sup>1</sup> \_ Germany only.

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## HEALTH MANAGEMENT

Our employees can also take advantage of a wide range of offerings in relation to occupational health management. Our Global Health Policy, alongside the corresponding works council agreements, provides the framework for this. Internationally orientated, it defines company-wide minimum standards and key indicators in the areas of first aid and emergency management, risk assessment and workplace hygiene among others.

We also supported personal preventative healthcare with company-wide health campaigns. In 2019, we successfully wrapped up the two-year campaign “Listen to your heart”. The planning for the next campaign has also been concluded. This time the focus will be on the issues of sleep and resilience.

Moreover, a Germany-wide prevention campaign for diabetes also got underway in the fiscal year, as part of which employees and their dependents can have their blood sugar levels tested in the laboratory using a free test kit and have a consultation with a doctor in the event there are any irregularities.\*

# OPPORTUNITY AND RISK REPORT

Dealing responsibly with risks and opportunities is key to our success. That is why, at the TÜV SÜD Group, we use an internal control system and a comprehensive risk management system to identify and proactively manage the risks and opportunities arising from our business activities.

## INTEGRATED INTERNAL CONTROL AND RISK MANAGEMENT SYSTEM FOR THE FINANCIAL REPORTING PROCESS

The financial reporting internal control and risk management system plays a decisive role in the financial statements of TÜV SÜD AG and the TÜV SÜD Group. It comprises measures designed to ensure complete, correct and timely submission of the information necessary to prepare the separate financial statements of TÜV SÜD AG and the consolidated financial statements and combined group management report. These measures are intended to minimize the risk of material misstatement in the books and records and external reporting.

The TÜV SÜD Group has a decentralized accounting organization. Consolidated companies handle accounting tasks independently and at their sole responsibility or transfer them within the Group's central shared service centers.

The TÜV SÜD IFRS accounting guidelines ensure uniform recognition and measurement of transactions and the exercise of options on the basis of the rules applicable to the parent company. These include in particular specific instructions on applying statutory provisions and dealing with industry-specific matters. They also set out in detail the components of the financial reporting packages to be prepared by the Group companies, as well as the guidelines for reporting and processing internal transactions.

Control activities at group level comprise analyzing and, if necessary, adjusting the financial reporting in the reporting packages submitted by the subsidiaries. This takes into account the reports presented by the independent auditor and the results of the closing discussions with representatives of the individual affiliated companies. During the closing meetings, the plausibility of the separate financial statements and critical individual matters at the subsidiaries are discussed. In addition to plausibility checks, other control mechanisms used during the preparation of the separate and consolidated financial statements of TÜV SÜD AG include the clearly defined segregation of responsibilities and the dual control principle.

Moreover, the financial reporting internal control system is also independently audited by the Group's internal audit function in Germany and abroad and assessed by the Group's independent auditor.

## INTEGRATED CONSOLIDATION AND PLANNING SYSTEM

We can consolidate and analyze historical accounting data and future-oriented controlling data via the “TÜV SÜD Business Portal”. The system offers central master data maintenance, standardized reporting and outstanding flexibility with regard to changes in the legal framework. This provides us with a future-proof technological platform that benefits the Group’s accounting and controlling functions alike. The data consistency of the TÜV SÜD Business Portal is ensured by a multi-level validation system.

## RISK MANAGEMENT SYSTEM

As an operational component of the business processes, the risk management of the Group is geared toward identifying potential risks at an early stage and in a structured manner and assessing their extent. Bids are reviewed based on defined criteria including resulting reputational risks during the contract acceptance process. In this way, appropriate countermeasures can be taken in a timely manner against pending damage to the company and any risk to the company’s ability to continue as a going concern can be ruled out at an early stage. Alongside the impact on the financial performance, the impact on non-financial metrics such as reputation or strategy are also taken into account in the risk analysis.

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We are prepared to take limited risks that are proportionate to the anticipated benefit from business activities.

### Risk management process

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We identify risks and opportunities based on commonly used standards. The categories for risks and opportunities have been adapted to suit TÜV SÜD. The risks are assessed on a standardized basis throughout the Group according to the potential loss amounts and likelihood of occurrence. When assessing qualitative risks, we also take into account, among other things, their potential impact on TÜV SÜD's reputation and on public bodies, such as accreditation authorities, as well as on the achievement of corporate goals.

The risk situation of the company is continuously recorded, evaluated and documented as part of the early warning system for the detection of risks. Events that could give rise to a risk are identified and assessed locally in the divisions, regions as well as in the subsidiaries. Suitable countermeasures are initiated without delay, and their effects assessed over time. Risk Committees have been set up at the division level, and there is also a Corporate Risk Committee for group-wide issues. These committees convene every quarter to analyze and evaluate the situation with respect to risks and opportunities, and to discuss corresponding measures. Implementation of the measures is monitored by the committees.

The results of risk management are factored into budgeting and controlling. The strategic risks relevant for TÜV SÜD are addressed and assessed as a part of the internal strategy implementation process. Together with targets agreed in the planning meetings, these are subject to ongoing review during the revolving revisions to planning. At the same time, the results of the measures already implemented to counter the risks are promptly included into the forecasts for further business development. In this way, the Board of Management also receives an overall picture of the current risk situation during the year via the documented reporting channels.

Reporting on identified risks and implemented countermeasures represents an integral component of our standardized corporate planning and monitoring processes and is firmly anchored in the Group's leadership process. It is incorporated in TÜV SÜD's information and communication system. Risk and opportunity reports are submitted to the Board of Management, the Audit Committee and Supervisory Board on a quarterly basis. Over and above these standardized reporting processes, significant issues are communicated via internal ad hoc reports.

The procedural rules, guidelines, instructions and descriptions are recorded systematically and are largely available online. Compliance with these regulations is ensured by internal controls. In addition, user training is carried out at regular intervals.

The independent auditor annually verifies the procedures and processes implemented for the early warning system for the detection of risks as well as the appropriateness of the documentation.

## CONTINUOUS MONITORING AND FURTHER DEVELOPMENT

The internal control and risk management system is constantly being optimized as part of our continuous monitoring and improvement processes. In this way, we take into account internal and external requirements alike. The aim of the monitoring and improvement process is to ensure the effectiveness of the internal control and risk management system. The results form part of regular and ad hoc reports to the Board of Management, Audit Committee and Supervisory Board of TÜV SÜD AG.

## Risk report

The ten most important risks are reported internally to the Board of Management, Audit Committee and Supervisory Board as the “top 10 risks”. We report here only on the material risks with an effect on earnings that TÜV SÜD is exposed to in its business operations.

Apart from the top 10 risks, we report on the effects of a change in the interest rate on benefit obligations, such as pensions and allowances. This takes account of the predominantly equity character of this risk and the limited extent to which it can be controlled. As of the reporting date, the weighted net risk resulting from the further reduction in the discount rate amounts to about € 51 million (prior year: about € 38 million).

Various lawsuits are pending in both Brazil and Germany in connection with the dam collapse in Brumadinho, Brazil. Investigative and criminal proceedings are underway against individual employees of TÜV SÜD entities. Please refer to the comments on compliance and other risks.

The largest ten risks affecting net income, excluding Brazil, together amount to approximately € 30 million weighted net risk, a manageable risk position for equity and earnings in relation to the size of the company.

The largest risks affecting net income relate to the CERTIFICATION Segment, in which four top 10 risks result in a weighted net risk of € 9 million, and INDUSTRY with four top 10 risks and a weighted net risk of € 10 million. There are two top 10 risks with a weighted net risk of € 11 million in the Group.

### INDUSTRY AND SYSTEMIC RISKS

#### Risks from changes to regulations

Largely, these are risks from changes to the regulatory environment that could negatively impact revenue and earnings. These risks include sales risks from liberalization, deregulation, but also protectionist measures in our core markets. We successfully mitigate these risks by continuously optimizing our business processes and models, developing and implementing sales and marketing concepts and diversifying the portfolio of products and services.

Changing statutory and regulatory conditions also influence the performance of our segments' business. We therefore monitor the markets closely and take an active role in the public debate on relevant topics. In this way, we seek to identify risks at an early stage and counteract their effects. This also enables us to leverage the opportunities arising as a result of changes in the business environment for our company.

We identify the following industry and systemic risks among the top 10 risks:

Our customers are establishing new industry standards and demand that their business partners provide prompt documentation of the implementation of and compliance with these standards in the form of new accreditations. A delay in obtaining new accreditation or not having the requisite accreditation could lead to being excluded from invitations to tender or contract award processes.

In the CERTIFICATION Segment, an unfavorable business performance by an investment, particularly as the result of a delayed market launch or low acceptance among customers of the key products it has developed, could impact the ongoing contribution to earnings and the future recoverability of the participation.

In the CERTIFICATION Segment, an invitation to tender from a major client for testing services could lead to the reduction of the planned contract volume and existing price framework.

## OPERATING RISKS

### Technological risks and risks from digitization

As a technical service provider, TÜV SÜD has a global presence with various business models. Changes in the technology used, shorter innovation cycles along with digitization and global connectivity and its manifestations have a direct impact on our customers' needs and the way we work. We meet these challenges by developing innovative services, also in the framework of strategic partnerships, with research institutes or our customers.

Development projects can experience delays, estimated budgets can be overrun or the project may not be completed. Therefore, these projects are subject to regular evaluation and reoriented if necessary, also to ensure the efficient allocation of resources.

### IT risks

Information processing plays a key role in our business activities. All major strategic and operational functions and processes are supported to a large extent by information technology (IT) at TÜV SÜD. The IT security measures implemented serve to protect the systems against risks and threats, as well as to avoid damage and reduce risks to an acceptable level. Even in an intact IT environment, it is not possible to preclude risks entirely.

Our internal IT security policies are based on national and international standards. We monitor the regulations and compliance on an ongoing basis in order to guarantee the target level of security. The central IT systems are monitored and regularly tested in such a way as to enable us to respond quickly to any disruption. Our corporate data are protected by adequate measures according to the level of protection required for the respective data. To protect our IT system against viruses and other malware, we maintain security mechanisms which we keep up to date at all times.

Extensive contingency measures are in place to ensure that we remain operative in the event of extensive damage to our IT infrastructure – for example, through fire, environmental influences or by force majeure. Comprehensive and regular backups of the central systems also ensure that we can resume operations within an acceptable time frame for the respective applications.



### **Recruitment risks**

With their commitment, motivation and skills, our employees are key success factors for TÜV SÜD. We see our employees' training and international orientation as well as their ability to translate innovations into customer benefits as personnel-related opportunities. However, risks arise if we are unable to recruit suitable staff or retain high performers. We also perceive there to be a risk of the loss of competency and experience stemming from the age structure of our employees in some business segments. We have implemented a large number of measures to ensure the appeal of TÜV SÜD as an employer and support the long-term retention of employees within the Group.

We identify the following operating risks among the top 10 risks:

The decommissioning or closure of the petrochemical business in the USA could lead to unplanned additional costs in the INDUSTRY Segment. A further postponement of investment plans could negatively impact a division in the UK to such an extent that restructuring measures already initiated would have to be extended.

In Spain, failure to observe the time limit for repeat inspections could result in the accreditor's considering the process non-compliant. This could in turn lead to temporary suspension or having to pay fines.

The development of IT applications may incur additional costs in the CERTIFICATION Segment that were not taken into account in the project planning.

Another top 10 risk arises from changes in the management of a division in the ASIA Region.

## FINANCIAL RISKS

### Interest Rate and Price Risks

Interest rate risks arise from interest-bearing items and items that are directly linked to interest rates. For securities, transaction risks arise from the market prices of the various interest-bearing investment instruments. In principle, a distinction is made between the risk from the pensions portfolio and the operations of the TÜV SÜD Group.

With regard to operating activities, we use financial derivatives exclusively to hedge underlying transactions. Forward exchange transactions are the main currency hedging instrument.

The risk strategy in the pensions portfolio is designed to limit some of the market risk from pension obligations by means of structured, dedicated financial assets. The objective is to compensate for the interest cost of the hedged pension obligations by means of a corresponding asset allocation wherever possible and to increase coverage over time. This is to be achieved by means of a net return on assets, new additions or recontributions with the trustors waiving their pension reimbursements.

Three quarters of the pension obligations are covered by financial assets that are mostly segregated from operating assets as a result of the contractual trust agreement (CTA) in order to reduce risks associated with pension liabilities and allow an investment policy that reflects the obligations. A very high percentage of the German segregated pension assets is managed in trust by TÜV SÜD Pension Trust e. V. These assets are invested by external investment companies in accordance with specific investment principles. Interest rate risks, currency risks and price risks relating to special non-current capital investment funds are partly hedged by derivative financial instruments. The portfolio's market value is subject to fluctuations resulting from changes in interest, currency and credit spread levels as well as share prices.

A further reduction in the discount rate used to determine pension obligations could have a significant effect on the equity position of the Group. In addition, a change in the discount rate has an effect on income in connection with the measurement of the long-service bonus and medical benefits obligations.

Another negative effect on equity capital could arise from a potential reduction in the return on plan assets compared to planning.

TÜV SÜD Pension Trust e. V. continued its strategy of maintaining long-term investments in 2019. The aim of the sustainability strategy, which is rooted in the relevant TÜV SÜD guidelines, is primarily to minimize risk.

## COMPLIANCE AND OTHER RISKS

### Risks from accreditations and designations

In the regulated business, we carry out our activities based on accreditations and designations from authorities and other government bodies. Non-compliance, quality defects or infringements of regulatory requirements could lead to a restriction, temporary suspension or revocation of the accreditation or designation. This can give rise to significant costs, for example for training or process adjustments in quality management in order to regain the authorization. Alongside a drop in revenue and earnings, the revocation of accreditations and designations can also lead to reputational damage. In order to mitigate risk, we carry out regular analyses of the legal environment in the regulated business, pay close attention to adherence to TÜV SÜD compliance requirements and systematically provide training to our employees in the relevant divisions.

### Brexit

The exit of the UK from the European Union gives rise to moderate risks for our business activities on the ground. Alongside foreign currency exchange rate risks and a further downturn in the economy, these include delays in the awarding of public sector contracts or a reluctant propensity to invest, in particular in construction.

### Liability risks

Potential damage events and liability risks could lead to significant entitlement to damages, loss of reputation and costs for defense against damages. A contractual limitation of liability is generally agreed with the customer in order to mitigate the risk. In addition, TÜV SÜD has also taken out insurance policies to the extent that is customary in the industry. However, the possibility cannot be ruled out that the available insurance coverage is not sufficient for individual cases.

### Risks from legal proceedings

As of the end of the reporting period, several legal proceedings were still pending in connection with services rendered by TÜV SÜD which are not related to the dam collapse in Brazil. Due to the existing global insurance coverage, no material financial risks arise from these proceedings. Sufficient provisions were recognized to cover these residual risks.

Stemming from the appeal of a former employee against the pension assessment made under the “Versorgungsstatut Bayern” (articles of association concerning the welfare fund in Bavaria), there is a risk of subsequent payments and increased future pension obligations.

On January 25, 2019, the tailings dam of a retention basin for an iron ore mine belonging to mining company Vale S.A. close to the village of Brumadinho, Brazil, collapsed. The dam had been inspected by TÜV SÜD Brasil Engenharia e Consultoria Ltda., São Paulo, Brazil (TÜV SÜD BRASIL; formerly TÜV SÜD Bureau de Projetos e Consultoria Ltda.) in summer 2018. This has resulted in various legal risks based on the pending and threatened proceedings in Brazil and Germany. Alongside bases for claims under civil law, especially relating to the assertion of indemnification claims, there are also claims under Brazilian environmental law and aspects relating to criminal law.

If these legal risks materialize, the financial implications for TÜV SÜD BRASIL, TÜV SÜD SFDK Laboratório de Análise de Produtos EIRELI (TÜV SÜD SFDK), São Paulo, Brazil, and possibly TÜV SÜD AG may be substantial and have a significant impact on our financial performance and position for the fiscal year 2020 and future fiscal years. The risks mainly stem from various possible liability claims and technical advisory and legal costs and are largely attributable to the INDUSTRY Segment. There may also be risks from loss of reputation. It is currently not possible to conclusively quantify these risks. Further disclosures have not been made in order to not undermine the findings of the investigations and the interests of the TÜV SÜD Group.

Within the top 10 risks, there is a risk at group level in the “Compliance and other risks” category stemming from an increase in insurance premiums following a reassessment of the industry by insurers.

## OVERALL STATEMENT ON THE RISKS FACED BY THE GROUP

From a Group perspective, we are paying particularly close attention not only to the discount rate risk from the measurement of the pension obligations and the provisions for long-service bonus and medical benefits, which has an effect on equity, but also to the strategic risks.

The risks in connection with the dam collapse in Brazil have remained unchanged over the prior year. Based on the current estimate, there may be further negative effects on current business activities in Brazil and significant negative financial implications for TÜV SÜD, in particular from legal risks. Should the outcome of the expected legal proceedings associated with the dam collapse in Brazil find to the detriment of TÜV SÜD, this may result in substantial damages or other payments that could have a significant negative impact upon the Group’s financial performance and position for the fiscal year 2020 and future fiscal years and its reputation.

The ability of the Brazilian subsidiary TÜV SÜD BRASIL and its direct shareholder TÜV SÜD SFDK to continue as a going concern is under threat in the event that these companies are deemed to be liable for the dam collapse and no further financial support were to be provided by the shareholders. Please also refer to our explanations in the notes to the consolidated financial statements under pending and imminent legal proceedings.

Looking ahead at the next two years and based on the information available to us in accordance with the risk management system that is in place, there are no apparent risks that could jeopardize the continuing existence of other TÜV SÜD entities. All organizational preconditions necessary to recognize developing risks at an early stage have been met.

# Opportunity report

Thanks to our global presence, global economic growth generally provides positive impetus for business in our segments, while an increase in global economic risks can have a negative impact on our business activities.

Significant opportunities for the favorable business development of TÜV SÜD result from the implementation of strategic planning, the business outlook and the individual opportunities of the divisions and segments. In the following, the main opportunities are presented in accordance with the risk categories mentioned above.

## INDUSTRY AND SYSTEMIC OPPORTUNITIES

We expect a gain on the disposal of our planning business for railway systems and small units in Germany.

The continuation of a favorable business trend for Signon Austria, which was sold during the fiscal year, may lead to an additional purchase price payment in our favor.

We will be able to expand our network of technical service centers if the decision is made to liberalize the market in one Spanish province.

## OPERATING OPPORTUNITIES

We expect additional opportunities in the INDUSTRY Segment as a result of the expansion of our service portfolio for the Turkish market.

We also take part regularly in invitations to tender in this segment, and with our expertise, especially internationally, we can meet the qualification requirements, thus increasing the possibility of being awarded contracts for large-scale projects.

## FINANCIAL OPPORTUNITIES

An increase in the discount rate used to determine pension obligations as well as for provisions for long-service bonuses and medical benefits could have a significant positive effect on the position of the Group's equity or income. Positive development of the key risk factors of nominal interest and credit spread results in a decrease in pension obligations, thereby reducing the shortfall in cover. After taxes, this change in the shortfall would have a positive effect on equity.

Subsidies can be applied for and collected for individual research and development projects, which are also being conducted in partnership with universities or authorities.

## COMPLIANCE OPPORTUNITIES AND OTHER OPPORTUNITIES

We expect the outcome of ongoing legal proceedings in Spain to be in our favor and that we will be awarded damages.

## Risk report of TÜV SÜD AG

TÜV SÜD AG is an investment and management holding company. As such, its risk situation is primarily determined by the economic situation of the subsidiaries.

There are financial risks in the form of interest rate risks, currency risks and price risks. Interest rate risks arise in connection with the disposition of liquidity and refinancing. To hedge these risks, derivative financial instruments in the form of interest rate swaps are also used, if required. Foreign currency risks can arise from every existing or forecast receivable or liability denominated in foreign currency. They are mainly hedged using forward exchange contracts. Currency risks arise from changes in the market price of held securities.

Industry and systemic risks arising from changes in the market conditions in the segments and regions are recorded using market and competitive analyses. Possible measures are discussed in strategy meetings.

Please refer to the explanations on group risks in respect of the dam collapse in Brazil.

# OUTLOOK

## Future development of the TÜV SÜD Group

Please note that actual events in the course of the coming fiscal years could differ from our expectations presented below. The following statements on the outlook for the development of TÜV SÜD in the next fiscal year are based on the planning for 2020. This was prepared by the Board of Management and approved by the Supervisory Board in December 2019.

The strategic planning, which covers the period until the year 2025, was used to determine interim goals that were incorporated into the outlook for 2020. The impact of economic development and the achievement of defined interim goals is assessed and evaluated in regular scenario analyses.

Possible further financial and non-financial burdens, extending beyond the provisions already recognized for the accident in Brazil, have not been taken into account in planning. These include a possible future negative impact on our business development and our brand value in particular. It is not currently possible to make any additional disclosures, which extend beyond the statements made on the provisions already recognized, regarding the amount of future budget deviations in particular as well as estimates and assumptions about the probability of certain scenarios occurring.

We continue to focus on our core competencies and want to grow organically. We take future-oriented trends into account, in particular digitization and new technologies, and are looking in particular to areas where we deem there to be promise of sustainable growth. The focus of our global activities is on markets that exhibit stable economic growth and reliable framework conditions. For 2020, we anticipate a slight upturn in global economic development. The Kiel Institute for the World Economy (ifw) expects economic growth of 3.1% for the forecast period and growth of 3.4% for 2021.

≡ 10

### Development of the global economy: Forecast for 2020

≡ 10

Global	Slight growth
Germany	Slowed growth
Euro zone	Slowed growth
USA	Slowed growth
Emerging markets	Slight growth

The economic downturn in Germany should tail off somewhat in the forecast year 2020. The domestic economy is driven by the continued strong levels of consumer demand from private households and the construction industry. The lowering of taxes and social security contributions, favorable financing conditions and increasing public consumption and capital expenditure will also have a positive impact. However, the propensity of export-oriented German industry to invest will be curbed somewhat by political factors, such as the uncertainty regarding the form that Brexit will take or the looming trade dispute between the US and Europe.

Economic development in the euro zone remains varied; a recovery is not expected, despite continued favorable financing conditions. The downturn in manufacturing and the automotive sector in particular is set to continue. Uncertainty regarding the form that Brexit will take continues to subdue economic development in the UK. Political risks could also have further negative effects for the outlook in the euro zone.

US economic growth will slow in 2020. Private consumption will further increase on account of the favorable situation on the employment market, however exports and corporate investment are likely to soften on account of uncertainty regarding trade policy and fiscal policy measures that will cease to take effect.

Sustained growth continues to be expected in the large emerging markets. However, on account of the ongoing trade dispute with the US, managed credit growth and the general structural change to a service society, slowed economic momentum is anticipated for the Chinese economy.

The impact of the coronavirus (SARS-CoV-2) on economic development in China and on a global level still cannot yet be conclusively assessed at the current point in time. However, a slow-down in global economic growth is to be expected.

#### Revenue growth: Forecast for 2020

		Development in forecast year 2019	Development in fiscal year 2019	Development in forecast year 2020
Group	2%–4 % up to € 2.7 billion	↗	→	↗
INDUSTRY Segment	Low single-digit growth	→	→	→
MOBILITY Segment	Low single-digit growth	→	→	→
CERTIFICATION Segment	Low double-digit percentage range	↗	→	↗

For TÜV SÜD we anticipate organic revenue growth of 2% to 4% in the forecast period. The Group's revenue from its existing entities is therefore expected to range between € 2,600 million and € 2,700 million. The expectations for revenue are an expression of the trust that our customers have placed in TÜV SÜD as a technical service provider. The non-German entities already contribute, depending on the customer's place of business, 41% to consolidated revenue. This share of revenue will also remain stable over the coming years.



## INDUSTRY

In 2020, we expect revenue growth in the lower single-digit percentage range for the **INDUSTRY Segment**. Almost 60% of revenue in the segment will continue to be generated by the Industry Service division, while the Real Estate & Infrastructure Division will account for approx. 40% of revenue in the segment.

We currently generated approx. 40% of revenue in the segment outside of Germany, with the majority of this being attributable to the Industry Service Division, which conducts almost 50% outside of Germany. The share from other countries will increase slightly in the year ahead.

Our facility safety services will make the biggest contribution to revenue in the **Industry Service Division**. The US market is developing particularly positively in this regard. We expect revenue in the fields of technical construction monitoring, energy production and quality management to increase slightly, in particular, from the international project business.

With the establishment of a competency center for offshore wind farms in South Korea, we are expanding our presence in a promising market of the future. We want to build on our leading position in the global market for independent technical risk calculation and analysis with international customers. We expect additional revenue growth from the new, innovative sound emission inspection (SEI). This product will be expanded in Germany in the forecast year and launched on the market in Italy, Spain and China.

By contrast, we expect a slight decline in revenue from services for the chemical and petrochemical industry. While our competency center for underwater pipelines in the UK will generate growth, we see further challenges for our business activities in the USA. Therefore, we will continue the restructuring of our activities in this market. In ASIA, we will see a rise in demand over the medium-term if the investments planned by our large customers enter the implementation phase.

Demand in the conventional energy sector will continue to fall. Services for decommissioning and testing projects can only compensate in part for the phased decommissioning of conventional power plants. By contrast, the increasing share of regenerative energy carriers used in power generation will lead to greater demand for storage technology. In addition, demand will also be significantly boosted by pilot projects in the hydrogen economy in Germany. The trend towards using hydrogen as a storage medium for regenerative energy can also be seen at an international level, which is why business potential is being identified in a cross-divisional project focusing on Germany, the UK and North Asia, and a hydrogen strategy is being developed.

The **Real Estate & Infrastructure Division** has a global presence and a strong market position on many markets. We continue to anticipate that there will be continuous growth in the division, which we will drive in strategic partnerships and targeted digital projects.

Germany and the UK are our core markets for building-related technical services, from consulting and engineering services, testing and certification to simulations, for example to improve energy-efficiency. Expected growth remains positive despite the impact of Brexit. In Germany, we are expanding our position as a leading and award-winning property manager. Our digital services for predictive maintenance, including by using digital building information modeling, will provide further stimulus to growth in this area.

In Germany, we are the market leader for safety-related services for lifts, and we want to further expand our market position in this area. We also enjoy a strong position on the market in the Middle East, which we are securing for the long term. Activities in China are still in the process of being established and continue to offer good opportunities for growth in areas such as the certification of safety components, amongst others. We also have high expectations for our expanded range of certification services for lift manufacturers, which will facilitate their licensing on various international markets.

The railway sector will experience a slight drop in revenue on account of the sale of Signon Austria in fiscal year 2019 and the sale of the planning business for railway systems scheduled for the forecast year. However, we expect further growth in the remaining core business. The series of investments announced by Deutsche Bahn, in particular, will provide additional stimulus over the medium term.

The sector is characterized by internationalization and ongoing digitization. Our unique selling point in comparison to our competitors is and remains the comprehensive portfolio of services.

Alongside building up our business activities in Asia, we are also building up our competence in the execution of complex large railway projects.

## MOBILITY

The automotive industry is still undergoing a process of transformation, which has dampened the economic outlook for the industry. Therefore, as a partner of the automotive industry the MOBILITY Segment is also faced with challenges.

Nevertheless, in the forecast period we expect continued growth in the lower single-digit percentage range. The international business will contribute approximately 10% of revenue in 2020.

We offer private and business customers in Germany, Turkey and Spain roadworthiness tests and exhaust gas analyses along with damage and valuation reports, and driver's license tests. For roadworthiness tests and exhaust gas analyses, we expect an increase in the number of vehicles inspected in Germany, in Slovakia we are expanding our business as part of our internationalization strategy. The business with damage and valuation reports remains the driver of growth in this regulated market.

Homologation shows steady growth across all regions. We expect the completion of the mobility testing center in Heimsheim and the associated expansion of capacity to deliver a boost to revenue in the lower single-digit percentage range in the emissions testing segment. The increased marketing of our activities in relation to highly-automated driving will yield positive effects for revenue development in the segment.

The sale of the fleet management business in 2019 will lead to a corresponding drop in our revenue. The remaining activities will be continued until they are finally spun-off.

However, there is a steady demand for our services for car dealers, manufacturers, suppliers and lease companies as well as insurance companies. Long-term business relationships with these customers will yield moderate growth.

The medical/psychological examination business will also make a modest contribution to the growth of revenue in the forecast period.

We will exploit the potential offered by digitization in the automotive sector and focus on innovations and strategic cooperation with customers and research institutes. Our activities aim to achieve greater proximity to the customers, both online and on the ground in the technical service centers. Aided by the use of artificial intelligence, we also want to further increase the quality and scope of our services. In this way, we will further develop our traditional damage assessment reports using artificial intelligence, thus positioning ourselves as an attractive proposition for new customers, which in turn will have a positive impact on the development of our revenue.

## **CERTIFICATION**

Revenue growth in the CERTIFICATION Segment should be just within the double-digit percentage range in the forecast year. Two thirds of revenue in the segment is generated by the Product Service Division and one third comes from the Business Assurance Division.

The segment is internationally oriented. In the forecast period, slightly less than 60% of revenue will be generated outside of Germany, primarily in the Product Service Division.

The **Product Service Division** is a key growth driver within the segment and in the TÜV SÜD Group. The focus of our activities will be on targeted market exploitation and building up innovative digital services for our customers. The largest share of revenue in absolute terms at more than 45% will continue to be provided by the ASIA region, while Germany will be the market with the largest revenue growth in percentage terms.

Services relating to food and cosmetic products will be integrated into the consumer goods business in the forecast year 2020. We expect higher levels of competitive pressure on account of the smoldering trade dispute between the USA and China and market activities will be transferred to the European market. Therefore, we are specifically intensifying our business with large and key customers. Our priority is on standardized inspection and certification services for retail trade with a focus on the electromagnetic compatibility of products and chemical analyses. In China, we will invest in our existing testing facilities and expand our internet-based range of services for customers. This is on top of customers-specific solutions for food and cosmetic products.

Our range of services relating to industrial goods will see profitable growth in Germany and China. The largest revenue driver will remain testing and certification services for automotive and industrial components and machines, which we are constantly enhancing with innovative services. Digitization and the increasing interoperability of systems is opening up new potential for us in this area.

We are leading the way in terms of technology on the market for battery testing and are systematically expanding our capacity around the world. At the same time, we are developing new services for innovative manufacturing, such as networked factories, and are driving modular certification together with partners from industry in our competency centers in Germany and Singapore. We are investing globally in services relating to 5G technology and connectivity electronic products.

We will further consolidate our global market leadership in the medical products segment from our core markets of Germany, the US and Western Europe. The introduction of the European Medical Devices Regulation (MDR) and Brexit have led to a further shortage of licensed certifiers for medical products on the market and thus also further opportunities for growth, including for our premium services. The implementation of the EU Regulation on In-Vitro Diagnostic Devices (IVDR) is also generating further growth.

The business development focus remains on innovative product segments, such as cardiovascular and orthopedic products as well as software as a medical devices and areas that are subject to advanced scrutiny under the new regulation, such as reusable products and in-vitro diagnostics devices. In this regard, we want to increase investment in medical device testing using our own testing facilities and expand capacity globally.

Our management system certification, training and cyber security services are pooled in the **Business Assurance Division**. With this range of offerings we help our customers to assess and reduce risks, reliably manage and improve business processes and train their staff. Approx. 35% of revenue is generated outside Germany. Demand for integrated certification services, training and cyber security solutions for the product and industrial sector is on the rise across the globe.

The certification business for traditional quality, environmental and energy management is growing steadily. Ancillary certification services, known as audit services, are generating additional growth. In this area, we expect positive effects in particular from supplier audits, process audits or the Industry 4.0 Readiness Index that was co-developed by TÜV SÜD.

We also see potential for further growth in IT-related certifications such as ISO 27001 (IT baseline protection) or TISAX (information security in the automotive industry). We are defending our market leadership in Germany with an extensive range of services. At the same time, we are taking targeted steps to expand our business with international customers as we can use our global presence to offer the certification of integrated management systems from a single source to customers around the world.

The positive revenue development in the training business will continue in 2020. Growth drivers are the public seminar business and the Digital Academy. We are focusing our Digital Academy activities on Singapore, India, Spain, Italy and Austria in particular. We expect internationalization to boost revenue generated outside Germany.

Upheaval in the automotive industry could lead to in-house training courses in Germany being postponed or canceled. At the same time, with international invitations to tender in the certification and cyber security business along with invitations to tender in other Divisions, we are seeing increasing demand for an additional range of online training courses. We will rigorously exploit this cross-selling potential.

We expect a significant increase in revenue for our cyber security services in the forecast period. Small and medium-sized enterprises are increasingly becoming the victim of cyber attacks. In order to prevent this we offer risk analyses, employee training sessions and data protection services especially for this market segment, for example providing a data protection officer or a data protection portal. Across all sectors – ranging from the trades to retail through to industry – the networking of components is leading to an increased demand for security testing, application testing and uniform standards, which our cyber security experts cover with a range of innovative services. To provide integrated product, plant and process security, cyber security is also becoming a necessary element of TIC services offered across all divisions. In view of this, we complement services offered by the TÜV SÜD Group, for example in the area of medical products, vehicle safety and supply chain management, with cyber security services.

We expect further growth and an increase in customer satisfaction from the establishment of the cross-divisional platform business. In doing so, we want to improve communication with our customers, offer our customers data-based value-added services, exploit cross-selling potential and internally drive the harmonization and automation of processes.

## MODERATE DEVELOPMENT OF EARNINGS

For the success of our company it is crucial that our services and innovations precisely meet our customers' needs and expectations and that we further develop our portfolio efficiently and innovatively in collaboration with our customers to their satisfaction. All in all, we strive to fulfill our mission of protecting people, the environment, and property from technology-related risks and thereby enabling technical progress.

When developing our business activities our focus is on markets and cutting-edge sectors in which stable and profitable growth is anticipated, with targeted returns of between 8% and 12%.

In order to optimize internal processes, we regularly analyze our business processes and derive measures to increase quality and efficiency. In this way, we are supporting the development of operating business using transparent, agile and harmonized cost and process structures. After all, our goal is to achieve sustainable earnings and profit development. ≡ 12

### EBIT development: Forecast for 2020

≡ 12

		Development in forecast year 2019	Development in fiscal year 2019	Development in forecast year 2020
Group	Increase up to € 235 million	↗	→	↗
INDUSTRY Segment	Stable development	↗	↗	→
MOBILITY Segment	Stable development	→	→	→
CERTIFICATION Segment	Slight increase	→	↘	↗

The development of earnings at TÜV SÜD's in the forecast year 2020 is characterized by the forward-looking move towards innovative services for digitization and new technologies, intensive cooperation with international key customers and competency in our traditional core markets.

We therefore expect EBIT to develop positively in all segments. In 2020, EBIT is expected to increase by up to 15%. However, the increase may be lower should currently unforeseeable events, such as the spread of the coronavirus (SARS-CoV-2) or additional negative effects in connection with the dam collapse in Brazil materialize, for which provisions could not be recognized as of December 31, 2019. The EBIT margin will remain largely constant in the upper single-digit percentage range.

In the planning year 2020, for the INDUSTRY Segment we anticipated an EBIT increase in the upper single-digit percentage range, the EBIT margin is also expected to be in this range. The development may be negatively impacted by the aforementioned additional negative effects from Brazil and the continuation of the suspension in Spain. The growth of the MOBILITY Segment's earnings should be in the mid-single-digit range with an EBIT margin in the mid-single-digit percentage range. The CERTIFICATION Segment will achieve an increase in EBIT in the upper single-digit percentage range. The EBIT margin is expected to just about reach double-digits.

We expect the sale of our planning business for railway systems and further small units in Germany to make a small positive contribution to business development.

The economic development of our markets together with regulatory and political decisions will set the underlying trend for the success of our business. However, what is ultimately decisive for the development of our earnings is the global presence on site at our customers and our competency in technical services. Therefore, we are constantly investing in innovation and further growth. For innovative future-oriented projects, the expansion of our testing facility capacity and the modernization of existing facilities and buildings, we have earmarked a total investment framework of € 100 million to € 135 million for the planning year 2020. In addition, we want to spend € 20 million on training our employees.

Economic Value Added (EVA) is a key indicator used to measure the business performance of TÜV SÜD. On the basis of the expected EBIT development described above and assuming that the average capital employed remains constant, we expect EVA in a range of € 70 million to € 85 million for the forecast year 2020.

We want to expand our staff base each year by up to 3%. Depending on the needs at the individual location and expected growth, we want to recruit well qualified and committed people for our company. The focus of our recruitment activities in the forecast period will be on Germany and China. We do not expect to see any significant change in the other non-financial indicators compared to the prior year.

# CONSOLIDATED FINANCIAL STATEMENTS





## **CONSOLIDATED FINANCIAL STATEMENTS**

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# CONSOLIDATED INCOME STATEMENT

## Consolidated income statement for the period from January 1 to December 31, 2019

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IN € MILLION	Note	2019	2018
<b>Revenue</b>	(33)	<b>2,590.1</b>	<b>2,498.5</b>
Own work capitalized		3.7	6.8
Purchased services		-311.0	-311.5
<b>Operating performance</b>		<b>2,282.8</b>	<b>2,193.8</b>
Personnel expenses	(6)	-1,572.9	-1,510.0
Amortization, depreciation and impairment losses on intangible assets, right-of-use assets, property, plant and equipment and investment property	(7)	-150.2	-81.6
Other expenses	(8)	-430.8	-558.3
Other income	(9)	60.4	80.8
Impairment of goodwill	(13), (20)	0.0	-27.1
<b>Operating result</b>		<b>189.3</b>	<b>97.6</b>
Income from investments accounted for using the equity method	(10)	17.3	8.5
Other income/loss from participations	(10)	-3.8	-0.6
Interest income	(10)	2.4	2.5
Interest expenses	(10)	-23.2	-12.8
Other financial result	(10)	2.4	-0.6
<b>Financial result</b>		<b>-4.9</b>	<b>-3.0</b>
<b>Income before taxes</b>		<b>184.4</b>	<b>94.6</b>
Income taxes	(11)	-51.8	-46.4
<b>Consolidated net income</b>		<b>132.6</b>	<b>48.2</b>
Attributable to:			
Owners of TÜV SÜD AG		117.8	32.4
Non-controlling interests	(12)	14.8	15.8

# CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME

## Consolidated statement of comprehensive income for the period from January 1 to December 31, 2019

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IN € MILLION	Note	2019	2018
<b>Consolidated net income</b>		<b>132.6</b>	<b>48.2</b>
Remeasurements of defined benefit pension plans	(22)		
Changes from unrealized gains and losses		-79.4	-21.1
Tax effect		52.1	1.2
		<b>-27.3</b>	<b>-19.9</b>
Equity instruments at fair value			
Changes from unrealized gains and losses		0.2	0.0
		<b>0.2</b>	<b>0.0</b>
<b>Total amount of items in other comprehensive income that will not be reclassified to the income statement</b>		<b>-27.1</b>	<b>-19.9</b>
Debt instruments at fair value			
Changes from unrealized gains and losses		0.2	-0.2
Tax effect		-0.1	0.1
		<b>0.1</b>	<b>-0.1</b>
Currency translation differences			
Changes from unrealized gains and losses		8.6	1.9
Changes from realized gains and losses		0.0	-6.9
		<b>8.6</b>	<b>-5.0</b>
Investments accounted for using the equity method			
Changes from unrealized gains and losses		-2.2	-3.8
		<b>-2.2</b>	<b>-3.8</b>
<b>Total amount of the items of other comprehensive income that will be reclassified to the income statement in future periods</b>		<b>6.5</b>	<b>-8.9</b>
<b>Other comprehensive income</b>	(11)	<b>-20.6</b>	<b>-28.8</b>
<b>Total comprehensive income</b>		<b>112.0</b>	<b>19.4</b>
Attributable to:			
Owners of TÜV SÜD AG		100.7	4.0
Non-controlling interests		11.3	15.4

# CONSOLIDATED STATEMENT OF FINANCIAL POSITION

## Consolidated statement of financial position as of December 31, 2019

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IN € MILLION	Note	Dec. 31, 2019	Dec. 31, 2018
<b>Assets</b>			
Intangible assets	(13)	323.0	325.6
Right-of-use assets	(27)	261.1	0.0
Property, plant and equipment	(14)	525.3	488.0
Investment property	(15)	3.0	3.3
Investments accounted for using the equity method	(16)	48.7	39.5
Other financial assets	(17)	131.9	93.3
Other non-current assets	(19)	7.7	8.1
Deferred tax assets	(11)	284.3	245.7
<b>Non-current assets</b>		<b>1,585.0</b>	<b>1,203.5</b>
Inventories		5.4	4.0
Trade receivables	(18)	495.5	487.2
Income tax receivables		19.8	18.4
Other receivables and other current assets	(19)	101.3	104.7
Cash and cash equivalents	(32)	203.3	209.6
Non-current assets and disposal groups held for sale	(20)	29.9	44.4
<b>Current assets</b>		<b>855.2</b>	<b>868.3</b>
<b>Total assets</b>		<b>2,440.2</b>	<b>2,071.8</b>
<b>Equity and liabilities</b>			
Capital subscribed	(21)	26.0	26.0
Capital reserve	(21)	128.2	124.4
Revenue reserves	(21)	716.6	624.5
Other reserves	(21)	-28.0	-34.4
<b>Equity attributable to the owners of TÜV SÜD AG</b>		<b>842.8</b>	<b>740.5</b>
Non-controlling interests	(12)	64.0	64.2
<b>Equity</b>		<b>906.8</b>	<b>804.7</b>
Provisions for pensions and similar obligations	(22)	548.8	568.3
Other non-current provisions	(23)	107.3	111.3
Non-current financial debt	(24)	2.4	1.3
Non-current lease liabilities	(27)	208.6	0.0
Other non-current liabilities	(26)	0.1	7.2
Deferred tax liabilities	(11)	22.5	25.7
<b>Non-current liabilities</b>		<b>889.7</b>	<b>713.8</b>
Current provisions	(23)	150.3	152.8
Income tax liabilities		24.9	19.1
Current financial debt	(24)	2.7	6.8
Current lease liabilities	(27)	55.2	0.0
Trade payables	(25)	181.3	150.6
Other current liabilities	(26)	212.3	195.2
Liabilities directly associated with non-current assets and disposal groups held for sale	(20)	17.0	28.8
<b>Current liabilities</b>		<b>643.7</b>	<b>553.3</b>
<b>Total equity and liabilities</b>		<b>2,440.2</b>	<b>2,071.8</b>

# CONSOLIDATED STATEMENT OF CASH FLOWS

## Consolidated statement of cash flows for the period from January 1 to December 31, 2019

≡ 16

IN € MILLION	Note	2019	2018
Consolidated net income		132.6	48.2
Amortization, depreciation, impairment losses and reversals of impairment losses on intangible assets, right-of-use assets, property, plant and equipment and investment property		150.2	81.5
Impairment of goodwill		0.0	27.1
Impairment losses and reversals of impairment losses on financial assets		3.1	4.5
Change in deferred tax assets and liabilities recognized in the income statement	(11)	18.7	-5.9
Gain/loss on disposal of intangible assets, right-of-use assets, property, plant and equipment and financial assets		-0.7	-1.5
Gain/loss from the sale of shares in fully consolidated entities and business units		-3.9	-17.6
Other non-cash income/expenses		-1.1	-7.2
Change in inventories, receivables and other assets		-32.2	-38.9
Change in liabilities and provisions		48.3	118.0
<b>Cash flow from operating activities</b>		<b>315.0</b>	<b>208.2</b>
Cash paid for investments in			
intangible assets, property, plant and equipment and investment property		-117.7	-103.0
financial assets		-24.3	-4.8
securities		-22.0	-69.2
business combinations (net of cash acquired)	(3)	-0.1	-23.3
Cash received from disposals of			
intangible assets and property, plant and equipment		3.7	3.2
financial assets		2.2	1.0
securities		14.0	0.0
shares in fully consolidated entities and business units (net of cash transferred)		6.9	33.6
Contribution to pension plans	(32)	-116.7	-95.3
<b>Cash flow from investing activities</b>		<b>-254.0</b>	<b>-257.8</b>
Dividends paid to owners of TÜV SÜD AG		-2.1	-2.1
Dividends paid to non-controlling interests		-10.3	-10.0
Repayments of loans including currency translation differences		-5.0	-1.9
Proceeds from loans including currency translation differences		2.0	1.5
Repayments of lease liabilities		-59.8	0.0
Other cash received or paid		4.3	0.0
<b>Cash flow from financing activities</b>		<b>-70.9</b>	<b>-12.5</b>
<b>Net change in cash and cash equivalents</b>		<b>-9.9</b>	<b>-62.1</b>
Effect of currency translation differences and change in scope of consolidation on cash and cash equivalents		2.2	0.4
Cash and cash equivalents at the beginning of the period		211.6	273.3
<b>Cash and cash equivalents at the end of the period</b>	(32)	<b>203.9</b>	<b>211.6</b>
Net of cash and cash equivalents of disposal groups at the end of the period		-0.6	-2.0
<b>Cash and cash equivalents at the end of the period according to the statement of financial position</b>		<b>203.3</b>	<b>209.6</b>
Additional information on cash flows included in cash flow from operating activities:			
Interest paid		6.9	1.0
Interest received		2.2	1.9
Income taxes paid		43.0	67.7
Income taxes refunded		9.3	2.4
Dividends received		14.1	8.5

# CONSOLIDATED STATEMENT OF CHANGES IN EQUITY

## Consolidated statement of changes in equity for the period from January 1 to December 31, 2019

IN € MILLION	Revenue reserves			
	Capital subscribed	Capital reserve	Remeasurements of defined benefit pension plans	Other revenue reserves
<b>As of January 1, 2018</b>	<b>26.0</b>	<b>124.4</b>	<b>-301.1</b>	<b>914.8</b>
Effect from first-time application of IFRS 9				0.2
<b>As of January 1, 2018, adjusted</b>	<b>26.0</b>	<b>124.4</b>	<b>-301.1</b>	<b>915.0</b>
Consolidated net income				32.4
Other comprehensive income			-19.5	
Dividends paid				-2.1
Change in scope of consolidation <sup>1</sup>			0.4	-0.4
Other changes				-0.2
<b>As of December 31, 2018</b>	<b>26.0</b>	<b>124.4</b>	<b>-320.2</b>	<b>944.7</b>
<b>As of January 1, 2019</b>	<b>26.0</b>	<b>124.4</b>	<b>-320.2</b>	<b>944.7</b>
Consolidated net income				117.8
Other comprehensive income			-23.5	
Dividends paid				-2.1
Change in scope of consolidation		3.8	0.1	
Other changes				-0.2
<b>As of December 31, 2019</b>	<b>26.0</b>	<b>128.2</b>	<b>-343.6</b>	<b>1,060.2</b>

1 \_ Non-controlling interests of € 2.7 million not yet paid in as of December 31, 2018.

≡ 17

	Other reserves							
	Currency translation differences	Available-for-sale financial assets	Equity instruments at fair value	Debt instruments at fair value	Investments accounted for using the equity method	Equity attributable to the owners of TÜV SÜD AG	Non-controlling interests	Total equity
	-5.7	0.3	-	-	-20.1	738.6	54.8	793.4
		-0.3		0.3		0.2		0.2
	-5.7	-	0.0	0.3	-20.1	738.8	54.8	793.6
						32.4	15.8	48.2
	-5.0			-0.1	-3.8	-28.4	-0.4	-28.8
						-2.1	-10.3	-12.4
						0.0	4.3	4.3
						-0.2		-0.2
	-10.7	-	0.0	0.2	-23.9	740.5	64.2	804.7
	-10.7	-	0.0	0.2	-23.9	740.5	64.2	804.7
						117.8	14.8	132.6
	8.3		0.2	0.1	-2.2	-17.1	-3.5	-20.6
						-2.1	-10.6	-12.7
						3.9	-0.9	3.0
						-0.2		-0.2
	-2.4	-	0.2	0.3	-26.1	842.8	64.0	906.8

# NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

## General Information

### 1 / BASIS OF PREPARATION

TÜV SÜD is a global technical services provider operating in the INDUSTRY, MOBILITY and CERTIFICATION Segments. The range of services covers testing, inspection, certification and training. TÜV SÜD has a presence in the regions EUROPE, AMERICAS and ASIA.

TÜV SÜD Aktiengesellschaft, with registered offices in Munich, Germany, is entered in the commercial register of Munich District Court under the number HRB 109326, as the parent company of the Group.

TÜV SÜD AG prepared its consolidated financial statements as of December 31, 2019 in accordance with the International Financial Reporting Standards (IFRSs) by exercising the option under Section 315e (3) HGB ["Handelsgesetzbuch": German Commercial Code]. All IFRSs that are binding for the fiscal year 2019 and the pronouncements issued by the International Financial Reporting Standards Interpretations Committee (IFRS IC) have been applied to the extent that these have been adopted by the European Union.

On March 10, 2020, TÜV SÜD AG's Board of Management approved the consolidated financial statements for the fiscal year 2019 for submission to the Supervisory Board.

### 2 / SCOPE AND PRINCIPLES OF CONSOLIDATION

All material entities and structured entities over which the Group has control as defined by IFRS 10 are included in the consolidated financial statements as of December 31, 2019. The separate financial statements of the subsidiaries included in consolidation and prepared in accordance with uniform accounting policies serve as a basis.

Associated companies and joint ventures are accounted for in the consolidated financial statements using the equity method. The shares are capitalized at acquisition cost at the time a significant influence is acquired and in subsequent years are increased or reduced by the proportionate net income, distributed dividends and other changes in equity.

Joint operations are consolidated proportionately with their assets and liabilities as well as expenses and income.

With TÜV SÜD AG as parent company, the scope of consolidation comprises the entities listed in the table below.

≡ 18



## Scope of consolidation

≡ 18

### NUMBER OF ENTITIES

	Dec. 31, 2019	Dec. 31, 2018
Fully consolidated entities	102	106
Entities accounted for using the equity method	7	6
thereof joint ventures	6	5
thereof associated companies	1	1
<b>Total number of consolidated entities</b>	<b>109</b>	<b>112</b>

The scope of consolidation was extended in the fiscal year 2019 to include new three entities. The additions relate to one fully consolidated newly founded company, the acquisition of a company and a first-time consolidation of an existing group company. Six entities were removed from the scope of consolidation, one of which due to an intragroup merger and five due to the sale of the entities. After 60% of the shares in the company were sold, one company was included in the consolidated financial statements according to the equity method. Overall, deconsolidations resulted in gains of € 4.5 million (prior year: € 23.2 million) and losses of € 0.6 million (prior year: € 3.1 million), which are recognized in other income or other expenses respectively.

The affiliated companies, associated companies and joint ventures included in the consolidated financial statements are listed in note 38 "Consolidated entities" along with the consolidation method applied. The list of the Group's entire shareholdings is published in the German Electronic Federal Gazette (Elektronischer Bundesanzeiger) as an integral part of the notes to the financial statements.

### Consolidation decisions based on contractual arrangements

The TÜV SÜD Group holds 50% of the shares in TÜV SÜD Car Registration & Services GmbH (CRS), Munich, and 48% of the shares in TUV SUD South Africa (Pty.) Ltd. (TS SA), Cape Town, South Africa. These entities are fully consolidated in the Group, as the TÜV SÜD Group is responsible for economic control of the entities on the basis of the contractual arrangements and can thus make decisions regarding the relevant activities of each entity.

In 2017, the TÜV SÜD Group acquired 52% of the shares in Uniscon universal identity control GmbH (Uniscon), Munich. The share in Uniscon increased to 76% in 2019 following a further share purchase. After reviewing the entity's purpose and structure as well as analyzing the contractual arrangement, Uniscon also continues to be included in the scope of consolidation as a joint venture pursuant to IFRS 11, as decisions regarding the relevant activities and processes can only be made with a voting right majority of 80%. Decision-making powers can thus only be exercised jointly by both owners.

### Risks from structured entities

In its capacity as a limited partner of the structured entities ARMAT GmbH & Co. KG, Pullach, and ARMAT Südwest GmbH & Co. KG, Pullach, TÜV SÜD AG has issued liquidity commitments for the aforementioned entities. These commitments serve to cover the current obligations of the structured entities. Claims may therefore be lodged against TÜV SÜD AG if the entities are unable to settle their obligations themselves. The risk of such a claim is considered low.

There are risks typical of ownership resulting from the special fund MI-Fonds F60. No liquidity commitments or guarantees were issued in this connection.

### 3 / BUSINESS COMBINATIONS

The acquisition of subsidiaries and businesses is accounted for using the acquisition method. For highly complex business combinations, external appraisers are obtained to carry out the purchase price allocation and to determine the fair values.

On December 31, 2019 TÜV SÜD AG acquired all of the shares in TÜV SÜD Föderation GmbH, Munich from TÜV SÜD e.V., Munich. As the company's sole purpose is to manage pension obligations, the transaction does not constitute an acquisition of a business within the meaning of IFRS 3. The company has been fully consolidated since the date of acquisition. The difference resulting from this transaction of € 3.8 million was recognized as an increase in capital reserves.

In fiscal year 2018, TÜV SÜD made two acquisitions. In March 2018, TÜV SÜD acquired the operations of the official inspection body for the state of Baden-Württemberg (Überwachungsorganisation für das Land Baden-Württemberg) from TÜV SÜD e.V. and now runs this itself. Previously TÜV SÜD had been contracted to perform this work in Baden-Württemberg on behalf of, by order and for account of TÜV SÜD e.V. The difference of € 17.1 million arising from this acquisition was recognized in full as goodwill. Another acquisition was immaterial for the consolidated financial statements.

### 4 / CURRENCY TRANSLATION

All financial statements of consolidated entities that have been prepared in foreign currency are translated into euro using the functional currency concept. As the foreign subsidiaries are independently operating entities, the functional currency is considered to be the currency of the respective country in which they are situated. Items of the statement of financial position are therefore translated using the mean rate on the reporting date. This does not include equity, which is translated using historical rates. Expense and income items are stated using annual average exchange rates. Exchange rate differences are treated as other comprehensive income and recognized under other reserves within equity.

In the subsidiaries' separate financial statements, monetary items in foreign currency are translated using the closing rate as of the reporting date, while non-monetary items continue to be measured using the historical exchange rate as of the date of the transaction. Differences resulting from such translations are generally recognized in the income statement.

The exchange rates used to translate the most important currencies developed as follows:

#### Selected exchange rates

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	Closing rate		Annual average rate	
	Dec. 31, 2019	Dec. 31, 2018	2019	2018
Chinese renminbi (CNY)	7.8205	7.8751	7.7339	7.8070
Pound sterling (GBP)	0.8508	0.8945	0.8773	0.8847
Singapore dollar (SGD)	1.5111	1.5591	1.5272	1.5928
Turkish lira (TRY)	6.6843	6.0588	6.3574	5.6998
US dollar (USD)	1.1234	1.1450	1.1196	1.1815

## 5 / ACCOUNTING POLICIES

The key accounting and measurement methods for TÜV SÜD are presented below; the mere repetition of standard requirements has been largely avoided. The exercise of options is explained in the respective specific note.

**Revenue** is recognized pursuant to IFRS 15 “Revenue from Contracts with Customers” and mainly consists of income from service business with customers. The values agreed in contracts or defined in price lists form the basis for calculating the revenue to be recognized. Revenue from long-term contracts is recognized over time pursuant to IFRS 15.35c, which involves recognizing costs and revenue in line with the degree to which the contract has been completed. The percentage of completion per contract to be recognized is calculated as the ratio of the actual costs incurred to overall anticipated costs of the project (cost-to-completion method). This is the most suitable method for TÜV SÜD to measure progress. Contract costs are expensed in the period in which they are incurred. When it is foreseeable that total contract costs will exceed total contract revenue, the expected loss is immediately expensed. Contracts are generally processed within one year. As a practical expedient, the company opts not to measure financing components pursuant to IFRS 15.63. The revenue recognition, settlement and cash inflows result in trade receivables, contract assets as well as contract liabilities. With respect to the type of the contract, a distinction is made between service contracts, usually training and advisory services, and contracts for work and labor, such as certification or testing services. The timing of revenue recognition and billing can be derived from the type of contract. The majority of service contracts are billed monthly, contracts for work and labor upon reaching individually agreed milestones or upon completion. The average group-wide payment terms range between 30 and 60 days, taking country-specific requirements such as statutory defined payment terms into account.

**Goodwill** is not subject to amortization but is tested for impairment at least once a year or whenever there is any indication of impairment, and written down if appropriate (impairment only approach). This impairment test is based on cash generating units (CGUs) and compares the recoverable amount with the carrying amount. The cash generating units correspond to the Group's divisions, which are managed on a worldwide basis. The recoverable amount is the higher of fair value less costs to sell and value in use derived from the plan for 2020 prepared and approved by management, with the aid of the discounted cash flow method. The key assumptions made in determining fair value are the growth rates of the cash flows in the planning period, the CGU-specific cost of capital and the forecast

sustainable growth rate after the end of the planning period. The planned cash flows are based mainly on estimates by the management of TÜV SÜD of the current and future market environment. Cost of capital is based on the weighted average cost of capital (WACC) of the TÜV SÜD Group adjusted for the specific risk profile inherent in the cash flows budgeted for the cash generating unit in question. The sustainable growth rate used is the forecast long-term rate of the cash generating unit's market growth.

**Other intangible assets acquired for a consideration** are measured at acquisition cost, **internally generated intangible assets** at production cost. Production cost comprises the costs directly and indirectly allocable to the development process.

Pursuant to IFRS 16, from January 1, 2019 **leases** are recognized, at the time at which the lease asset is made available to the Group, at the lessee as a right-of-use asset and a corresponding lease liability. **Right-of-use assets** are measured at cost comprising the initial amount of the lease liability adjusted for lease payments made on or before the commencement date along with initial direct costs and estimated costs for possible restoration obligations. The right-of-use asset is depreciated on a straight-line basis over the shorter of the useful life of the right-of-use asset and the lease term.

At the time of initial recognition, **lease liabilities** are measured at the present value of the lease payments not yet paid at the commencement date of the lease. These are discounted using the incremental borrowing rate of the respective lessee as the interest rate implicit in the lease cannot be readily determined. Currency-specific reference interest rates for various periods of up to 50 years from risk-free interest rates with matching terms are used to determine the incremental borrowing rate. The latter is increased by loan risk premiums and adjusted for the duration of an agreement. The lease liability mostly accounts for fixed lease payments and variable lease payments linked to an index or interest rate. When determining the term of leases TÜV SÜD takes account of all those facts and circumstances that offer an economic incentive to exercise options to extend the lease or not exercise options to terminate it. Changes to the term stemming from options to extend or terminate the lease being exercised are only included in the term of the agreement if it is reasonably certain that an option to extend a lease or not terminate it will be exercised. The lease liability is remeasured if future lease payments change on account of a change in an index or if the Group amends its estimation regarding whether the option to extend or terminate the lease will be exercised. The right-of-use asset is adjusted accordingly.

Practical expedients are applied for leases of low-value assets and short-term leases. In these cases, the lease payments are expensed on a straight-line basis in the income statement. Lease agreements with a term of up to twelve months qualify as short-term leases. Low-value assets include IT equipment and smaller technical devices, for example. Furthermore, the requirements of IFRS 16 on lease accounting are not applied to leases for intangible assets. Intragroup leases are likewise not recognized pursuant to IFRS 16. In the future, this means that in the segment reporting pursuant to IFRS 8, lease payments for these leases will also be recognized in profit or loss on a straight-line basis over the term of the lease.

Lease payments are divided up into payments of principal and interest. The interest component is recognized under cash flow from operating activities in the statement of cash flows, whereas payments made to repay the lease liabilities are shown under cash flow from financing activities.

Up to and including 2018, leases used to be either classified as finance or operating leases pursuant to IAS 17. Operating lease payments were recognized in profit or loss on a straight-line basis over the term of the lease.

At each reporting date, the Group assesses whether there is any indication that the carrying amounts of intangible assets, right-of-use assets, property, plant and equipment and investment property may be subject to **impairment**. If any such indication exists, an impairment test is performed. For intangible assets with an indefinite useful life, such a test is conducted annually.

**Current income taxes** are calculated based on the respective local taxable income and local tax rules in place for the year. Furthermore, current taxes recognized in the fiscal year include adjustments for uncertain tax payments or refunds for years that have not yet been finally assessed. However, these exclude interest payments or interest refunds and penalty payments on the payment of tax arrears. Corresponding provisions are recognized in the event that the amounts stated in the tax returns are not likely to be recognized (uncertain tax positions). The amount is determined from the best estimate of the expected tax payment (expected value or most likely amount of the tax uncertainty). Tax refund claims from uncertain tax positions are recognized if it is more likely than not and thus reasonably certain that they can be realized. Only in the case of tax loss carryforwards, no tax liability or tax claim is recognized for these uncertain tax positions. Instead, the deferred tax assets for the unused tax loss carryforwards are to be adjusted.

**Deferred tax assets and liabilities** are recognized for temporary differences between the carrying amounts in the IFRS statement of financial position and the tax basis of the assets and liabilities, as well as for consolidation measures with an effect on income. In addition, taxes are deferred for tax loss carryforwards provided the realization of such carryforwards is sufficiently certain. The taxable income considered likely on the basis of the respective entity's planning for the subsequent three years is taken as the basis for the assessment. Deferred taxes are calculated on the basis of the anticipated tax rates at the time of realization. For convenience, TÜV SÜD AG's tax rate is used to calculate deferred taxes on consolidation entries with effect on income. Deferred tax assets and liabilities on temporary differences are netted out for each entity and/or tax group.

**Contract assets** are accounted for using the cost-to-completion method in accordance with IFRS 15. These receivables are normally current and are expected to result in external revenue in the following year. Anticipated losses from these contracts are taken into account on the liabilities side if they can be reliably estimated. Project-related advance payments received from customer contracts are deducted from contract assets.

Advance payments not covered by services already rendered are recognized under **contract liabilities**. Contract liabilities are normally current and are expected to result in external revenue in the following year.

**Non-current assets and disposal groups held for sale** relate to assets that can be sold in their present condition and whose sale is highly probable. Management has committed to a plan to sell the assets and the sale is expected to be completed within one year from the date of the classification. Liabilities to be sold together with assets in a single transaction are part of a disposal group or discontinued operations and are reported separately as **liabilities directly associated with non-current assets and disposal groups held for sale**. Non-current assets held for sale are no longer amortized or depreciated. Instead they are stated at their fair value less costs to sell from the date of classification provided that this is lower than the carrying amount.

**Provisions for pensions and similar obligations** are measured using the actuarial projected unit credit method for defined benefit pension plans. The amount shown on the statement of financial position represents the current value of the pension obligation after offsetting the fair value of plan assets as of the reporting date. The calculation of pension obligations is based on actuarial reports considering biometric assumptions. Remeasurements, comprising actuarial gains and losses and the return on plan assets (excluding interest on the net liability), are recognized in full in the fiscal year in which they occur. They are charged directly against revenue reserves, taking deferred taxes into account, and reported outside of the income statement as a component of other comprehensive income. The net interest expense is obtained by multiplying the discount rate for the respective fiscal year by the net liability (pension obligation less plan assets) as of the reporting date for the prior fiscal year. It is reported in the financial result.

**Other provisions** are recorded if the obligation to a third party results from a past event which is expected to lead to an outflow of economic benefits and their value can be determined reliably. They are measured using the best estimate of the settlement value, and cannot be offset against reimbursement claims. Provisions due in more than one year are discounted where the effect of the time value of money is material. The effect from unwinding the discount is reported in the financial result. Provisions for restructuring measures are recognized to the extent that a detailed formal restructuring plan has been prepared and communicated to the parties concerned.

A **financial instrument** is a contract that gives rise to both a financial asset of one entity and a financial liability or equity instrument of another entity. Financial assets and liabilities are initially recognized on the trade date at their fair value taking into account any transaction costs. Subsequent measurement depends on the category to which they are allocated.

Under IFRS 9 “Financial Instruments”, financial assets are classified into measurement categories based on the business model for managing these financial instruments and on the type of their underlying contractual cash flows. A distinction is made between the following **measurement categories**:

- Debt instruments at amortized cost.
- Debt instruments at fair value through other comprehensive income: Accumulated gains and losses will be reclassified to the income statement upon derecognition of the debt instruments.
- Debt instruments, derivatives and equity instruments at fair value through profit or loss.
- Equity instruments at fair value through other comprehensive income: gains and losses remain in other comprehensive income even after derecognition of these financial instruments.

The business models were determined by the Board of Management using data, facts and circumstances as of the date of first-time application. The contractual cash flows were checked on the basis of the conditions when the respective assets were recognized for the first time. In the TÜV SÜD Group, the two business models “hold to collect” and “hold to collect and sell” were defined. No debt instruments were designated as at fair value through profit or loss. Debt instruments are thus measured at amortized cost or at fair value through other comprehensive income.

The **equity instruments** held by the TÜV SÜD Group primarily relate to non-consolidated shares in affiliated companies and participations. These are allocated to the “at fair value through other comprehensive income” measurement category. Due to immateriality, they are measured at amortized cost, as this roughly corresponds to their fair values. The TÜV SÜD Group’s participations are not listed.

The general approach for recording impairment losses is used on all **debt instruments**, apart from trade receivables. With this method risk provisioning for expected credit losses is recorded in two stages. Debt instruments where the credit risk has not increased significantly since first-time recognition are covered by a risk provision in the equivalent to the credit losses expected to be incurred within the next twelve months. Debt instruments where the credit risk has increased significantly since first-time recognition have to be accounted for with a risk provision equivalent to the credit losses expected to be incurred over the residual term. The TÜV SÜD Group uses external ratings to monitor changing credit risks. A significant change in the credit risk is defined as when the external rating is no longer in the investment grade range, or also when the contractually agreed payments are more than 30 days overdue. If the contractually agreed payments are more than 90 days overdue, this is classed as a default.

The simplified approach is applied to trade receivables. At each reporting date, a risk provision equivalent to the credit losses expected to be incurred over the entire term is recognized. A provision matrix is used to measure loss allowances in the TÜV SÜD Group. The expected loss rates are calculated using the roll-rate method, which is based on the probability of a receivable progressing to payment delay in successive stages. Roll rates are calculated separately for the defaults of each entity in the TÜV SÜD Group. Forward-looking information about expected changes in country ratings is used to supplement the internal historical expected loss rates.

The TÜV SÜD Group has not made use of the option under IFRS 9 to recognize hedges. Derivatives are held to account for economic hedging relationships and are therefore measured at fair value.

**Financial liabilities** are measured at either amortized cost or fair value pursuant to IFRS 9. In the TÜV SÜD Group, derivatives, liabilities from put options as well as contingent considerations from business combinations as defined by IFRS 3 are carried at fair value. All other liabilities are recognized at amortized cost.

### Assumptions, estimation uncertainties and judgments

The preparation of the consolidated financial statements requires that assumptions or estimates are made for some items which have an effect on the values stated in the statement of financial position, the disclosure of contingent liabilities and the recognition of income and expenses. This particularly relates to revenue recognition using the cost-to-completion method, goodwill, deferred tax assets recognized on tax loss carryforwards, the measurement parameters for pension obligations and other provisions, and the calculation of fair values. Actual amounts may differ from these estimates.

Key estimate parameters as part of **testing goodwill for impairment** include the sustainable long-term growth rates as well as the cash flows allocable to cash generating units and the risk adjustment per cash generating unit of the TÜV SÜD Group's weighted average cost of capital. A 10% decrease in cash flow, which is used to calculate the fair value less costs to sell or the value in use of the cash-generating unit, would not lead to an impairment loss on goodwill that is not impaired. The same also applies for an increase of one percentage point in the weighted average cost of capital or a decline of one percentage point in the sustainable growth rate.

The **defined benefit obligations (DBO)** and the pension expenses for the subsequent year are calculated using the actuarial parameters stated in note 22. As in the prior year, the discount rate in Germany is calculated in accordance with the "GlobalRate: Link" – methodology developed by the Group's actuary Willis Towers Watson Deutschland GmbH, Wiesbaden, to determine the discount rate for the measurement of pension obligations. However, a change in parameters would not have an impact on the consolidated net income for the reporting year, as remeasurements are recognized in equity with no effect on income.

The recognition and measurement of **provisions and contingent liabilities** in connection with pending and imminent legal proceedings are based to a significant extent on estimations made by TÜV SÜD. Assumptions must be made regarding their probability of occurrence, maturity and level of risk, which are

subject to significant estimation uncertainty. This applies, in particular, to the estimation regarding the probability of utilization, the level of the potential liability risks and the amount of the legal and advisory costs associated with the dam collapse in Brazil. TÜV SÜD evaluates the matters using internal and external experts based on the circumstances prevailing as of the reporting date and knowledge gained prior to the preparation of the financial statements. Note 29 presents the Group's pending and imminent legal proceedings, the outcome of which could have a significant impact on the Group's financial performance and position for fiscal year 2020 and future fiscal years.

In the case of other items of the statement of financial position, a change to the original basis for estimation results in a change to the respective item, with an effect on income, which is immaterial for the consolidated financial statements.

#### **Accounting standards applied for the first time in the current fiscal year**

IFRS 16 "Leases" was applied for the first time as of January 1, 2019 in compliance with the transition requirements of the modified retrospective method. Consequently, the comparative information for prior periods was not restated. The cumulative effect from the first-time application of IFRS 16 was not recognized as of January 1, 2019, for reasons of materiality. The Group has made use of various options and exemptions under the modified retrospective method. Therefore, at the time of first-time application a new evaluation was not carried out to determine whether an agreement constitutes or contains a lease. For leases that were previously classified as operating leases pursuant to IAS 17, at the date of first-time application, the right-of-use asset was recognized in the amount of the present value of the payment obligation. This was determined by discounting the remaining lease payments using the incremental borrowing rate as of January 1, 2019. The average weighted interest rate at the time of first-time application was 2.35%. During the transition, leases that had a remaining term as of January 1, 2019 of less than twelve months were treated as short-term leases. Furthermore, initial direct costs were not taken into account when measuring the right-of-use assets at

the date of initial application. Leases that were classified pursuant to IAS 17 as finance leases as of December 31, 2018 were taken over at the carrying amounts of the assets and liabilities recognized directly before the first-time application and carried forward according to the provisions of IFRS 16.

The operating lease obligations as of December 31, 2018 can be reconciled to the lease liabilities recognized as of January 1, 2019 as follows:

#### **Reconciliation pursuant to IFRS 16**

≡ 20

IN € MILLION

<b>Obligations from rental and lease agreements as of December 31, 2018</b>	<b>226.3</b>
Discounted with the incremental borrowing rate as of January 1, 2019	- 16.8
Liabilities from finance leases as of December 31, 2018	0.7
Obligations included relating to short-term leases	- 4.5
Obligations included relating to leases of low-value assets	- 2.3
Consideration of options to extend leases that are reasonably certain to be exercised	68.3
Reclassifications to "held for sale"	- 2.0
<b>Lease liabilities as of January 1, 2019</b>	<b>269.7</b>



### New accounting standards that are not yet mandatory

The following amendments of standards generally relevant for TÜV SÜD were issued by the IASB and adopted by the EU prior to the preparation of TÜV SÜD's consolidated financial statements, but have not yet been applied in the consolidated financial statements as of December 31, 2019. The amendments are mandatory for the first time for fiscal years beginning on or after their respective effective dates. TÜV SÜD decided not to early adopt such standards on a voluntary basis.

### New accounting standards endorsed by the EU that are not yet mandatory

≡ 21

Standard	Effective date pursuant to EU endorsement	Anticipated impact on TÜV SÜD AG's consolidated financial statements
Amendments to IAS 1 and IAS 8 "Definition of Material"	January 1, 2020	No significant consequences are expected for the consolidated financial statements.
Amendments to IFRS 9, IAS 39 and IFRS 7 "Interest Rate Benchmark Reform"	January 1, 2020	No consequences are expected for the consolidated financial statements.
Framework "Amendments to References to the Conceptual Framework in the IFRS Standards"	January 1, 2020	No significant consequences are expected for the consolidated financial statements.

The table below shows those standards and amendments to existing standards issued by the IASB which could be relevant for TÜV SÜD, but which have not yet been adopted by the EU and which are therefore not yet applicable for IFRS financial statements prepared pursuant to Section 315e HGB.

### New accounting standards not yet endorsed by the EU that are not yet mandatory

≡ 22

Standard	Effective date	Anticipated impact on TÜV SÜD AG's consolidated financial statements
Amendments to IAS 1 "Classification of Liabilities as Current or Non-Current"	January 1, 2022	No consequences are expected for the consolidated financial statements.
Amendments to IFRS 3 "Definition of a Business"	January 1, 2020	No significant consequences are expected for the consolidated financial statements.
Amendments to IFRS 10 and IAS 28 "Sale or Contribution of Assets between an Investor and its Associate or Joint Venture"	Pending	These amendments are currently not relevant for TÜV SÜD.



# Notes to the consolidated income statement

## 6 / PERSONNEL EXPENSES

<b>Personnel expenses</b> <span style="float: right;">≡ 23</span>		
IN € MILLION	2019	2018
Wages and salaries	1,264.3	1,214.2
Social security contributions and other benefit costs	171.9	165.1
Retirement benefit costs	107.8	102.8
Incidental personnel costs	28.9	27.9
	<b>1,572.9</b>	<b>1,510.0</b>

The rise in wages and salaries as well as in social security contributions and other benefit costs is a result of the expansion of the workforce in Germany and other countries and also of collective wage increases in Germany which became effective in the reporting period along with exchange rate effects.

Retirement benefit costs also include employer contributions to state pensions. The current service cost decreased by € 1.7 million in fiscal year 2019. The reason for this is the decrease in the number of active employees. This development is more than compensated for by the increase in expenses for defined contribution pension funds and in employer contributions to state pensions in Germany.

The TÜV SÜD Group had an average headcount (full-time equivalents) of 23,024 employees in the reporting year (prior year: 22,424 employees). The majority of employees are salaried employees.

## 7 / AMORTIZATION, DEPRECIATION AND IMPAIRMENT LOSSES ON INTANGIBLE ASSETS, RIGHT-OF-USE ASSETS, PROPERTY, PLANT AND EQUIPMENT AND INVESTMENT PROPERTY

<b>Amortization, depreciation and impairment losses on intangible assets, right-of-use assets, property, plant and equipment and investment property</b> <span style="float: right;">≡ 24</span>		
IN € MILLION	2019	2018
Amortization and depreciation		
of intangible assets	20.1	20.0
of right-of-use assets	62.4	0.0
of property, plant and equipment	62.6	55.5
of investment property	0.1	0.2
Impairment losses	5.0	5.9
	<b>150.2</b>	<b>81.6</b>

## 8 / OTHER EXPENSES

### Other expenses

≡ 25

IN € MILLION	2019	2018
Travel expenses	81.6	93.8
Rental and maintenance expenses	60.0	104.6
IT costs	50.8	45.5
Cost of purchased administrative services	46.9	44.8
Fees, contributions, consulting and audit costs	36.9	60.9
Telecommunication costs	19.2	19.5
Marketing costs	17.4	17.3
Impairment losses on trade receivables (including amounts derecognized)	12.4	6.5
Currency translation losses	10.2	10.4
Other taxes	5.7	4.6
Miscellaneous other expenses	89.7	150.4
	<b>430.8</b>	<b>558.3</b>

## 9 / OTHER INCOME

### Other income

≡ 26

IN € MILLION	2019	2018
Currency translation gains	9.6	8.7
Income from other transactions not typical for the company	7.3	8.8
Income from the reversal of provisions	6.3	6.8
Income from the reversals of impairment losses on trade receivables	2.4	1.1
Income from the disposal of non-current assets	1.7	24.8
Income from the reversal of impairment losses on fixed assets	0.1	0.1
Miscellaneous other income	33.0	30.5
	<b>60.4</b>	<b>80.8</b>

## 10 / FINANCIAL RESULT

### Financial result

≡ 27

IN € MILLION

	2019		2018	
<b>Income from investments accounted for using the equity method</b>		<b>17.3</b>		<b>8.5</b>
Income/loss from participations				
Financial income from participations	2.4		5.1	
Finance costs from participations	-6.1	-3.7	-5.7	-0.6
Income/loss from loans				
Financial income from loans	0.0		0.0	
Finance costs from loans	-0.1	-0.1	0.0	0.0
<b>Other income/loss from participations</b>		<b>-3.8</b>		<b>-0.6</b>
Interest income from securities		0.0		0.1
Interest income from loans		0.6		0.5
Other interest and similar income		1.8		1.9
<b>Interest income</b>		<b>2.4</b>		<b>2.5</b>
Net finance costs for pension provisions		-8.3		-9.9
Interest expenses from lease liabilities		-6.3		-
Interest expenses from finance leases		-		-0.1
Other interest and similar expenses		-8.6		-2.8
<b>Interest expenses</b>		<b>-23.2</b>		<b>-12.8</b>
Currency gains/losses from financing measures				
Currency translation gains	11.0		13.0	
Currency translation losses	-11.0	0.0	-12.9	0.1
Sundry financial result				
Sundry financial income	4.6		1.7	
Sundry finance costs	-2.2	2.4	-2.4	-0.7
<b>Other financial result</b>		<b>2.4</b>		<b>-0.6</b>
		<b>-4.9</b>		<b>-3.0</b>

The income from investments accounted for using the equity method of € 17.3 million (prior year: € 8.5 million) contains a figure of € 19.1 million (prior year: € 8.3 million) from the proportionate net income generated by the joint ventures TÜVTÜRK.

The total interest income from assets not measured at fair value through profit or loss amounts to € 2.4 million in the fiscal year 2019 (prior year: € 2.5 million). The total interest expense (excluding net finance costs for pension provisions) amounts to € 14.9 million (prior year: € 2.9 million). This contains interest expenses from lease liabilities from the first-time application of IFRS 16 of € 6.3 million, the discounting effect on a loan of € 2.5 million (prior year: € 0.0 million) and expense from the change in discount rate on provisions for long-service bonuses and medical benefits of € 2.5 million (prior year: € 0.0 million).

## 11 / INCOME TAXES

### Income taxes

≡ 28

IN € MILLION	2019	2018
Current taxes	32.9	52.3
Deferred taxes		
on temporary differences	21.4	-6.1
on tax loss carryforwards	-2.5	0.2
	18.9	-5.9
	51.8	46.4

Current taxes for the fiscal year 2019 include expenses of € 2.0 million (prior year: income of € 1.1 million) for current taxes from prior periods.

The following reconciliation for the TÜV SÜD Group presents a summary of the individual entity-specific reconciliations prepared using the respective local tax rates taking consolidation entries into account. The expected income tax expenses are based on the nominal tax rate of the tax group of TÜV SÜD AG:

### Tax reconciliation

≡ 29

IN € MILLION	2019	2018
Income before taxes	184.4	94.6
Expected tax rate	30.6%	30.6%
<b>Expected income tax expense</b>	<b>56.4</b>	<b>28.9</b>
Tax rate differences	-3.9	-3.0
Tax reductions due to tax-free income	-9.1	-10.3
Tax increases due to non-deductible expenses	6.1	24.1
Tax increases due to non-deductible income taxes and withholding taxes	4.7	4.1
Tax effect on accounting for associated companies and joint ventures using the equity method	-4.8	-2.5
Tax increases on account of non-deductible impairment of goodwill	0.0	8.3
Current and deferred taxes for prior years	1.9	-3.1
Valuation allowances and adjustments to carrying amounts of deferred taxes	2.2	0.8
Effect of changes in tax rates	-0.7	-0.8
Other differences	-1.0	-0.1
<b>Reported income tax expense</b>	<b>51.8</b>	<b>46.4</b>
<b>Effective tax rate</b>	<b>28.1%</b>	<b>49.0%</b>

Valuation allowances and adjustments to carrying amounts of deferred taxes contain deferred tax income of € 0.6 million (prior year: € 1.8 million) from the decrease in the deferred tax expense caused by previously unrecognized tax loss carryforwards. This was counterbalanced by deferred tax expenses

of € 3.4 million (prior year: € 4.1 million) from the change in valuation allowances recognized on deferred taxes on tax loss carryforwards and temporary differences. The current tax expense was reduced by € 0.4 million (prior year: € 1.5 million) on account of previously unrecognized tax loss carryforwards.

Deferred tax assets and liabilities result from the following items of the statement of financial position and tax loss carryforwards:

#### Deferred taxes by item of the statement of financial position

≡ 30

IN € MILLION	Deferred tax assets		Deferred tax liabilities	
	Dec. 31, 2019	Dec. 31, 2018	Dec. 31, 2019	Dec. 31, 2018
Non-current assets	5.7	5.5	69.0	66.9
Current assets	8.4	2.8	22.2	15.9
Non-current liabilities				
Provisions for pensions and similar obligations	299.2	262.2	1.9	0.9
Other non-current liabilities	13.0	9.6	1.4	1.5
Current liabilities	25.6	25.7	2.1	5.5
	<b>351.9</b>	<b>305.8</b>	<b>96.6</b>	<b>90.7</b>
Offsetting	-74.1	-65.0	-74.1	-65.0
<b>Deferred taxes on temporary differences</b>	<b>277.8</b>	<b>240.8</b>	<b>22.5</b>	<b>25.7</b>
<b>Deferred taxes on tax loss carryforwards</b>	<b>6.5</b>	<b>4.9</b>		
	<b>284.3</b>	<b>245.7</b>	<b>22.5</b>	<b>25.7</b>

In Germany, no deferred taxes were recognized on corporate income tax loss carryforwards of € 13.6 million (prior year: € 12.2 million) and trade tax loss carryforwards of € 13.3 million (prior year: € 12.5 million), because it is not likely at present that the tax benefits will be realized. These tax loss carryforwards can be carried forward for an indefinite period. Outside of Germany, no deferred taxes were recognized on tax loss carryforwards of € 30.9 million (prior year: € 33.4 million). Of these tax loss carryforwards, € 28.1 million (prior year: € 30.2 million) can be used indefinitely and € 2.8 million (prior year: € 2.7 million) will expire within the next five years. Furthermore, no deferred tax assets were recognized for

deductible temporary differences of € 6.5 million (prior year: € 9.2 million).

Differences on investments in subsidiaries totaling € 18.4 million (prior year: € 14.2 million) did not give rise to deferred tax liabilities because the differences are not expected to reverse in the foreseeable future by way of realization (distribution or sale of the entity).

The net balance of deferred tax assets and deferred tax liabilities changed as follows in the reporting year:

#### Development of the net balance of deferred tax assets and deferred tax liabilities

≡ 31

IN € MILLION	2019	2018
<b>As of January 1</b>	<b>220.0</b>	<b>213.1</b>
Currency translation differences	-0.1	-0.1
Changes in scope of consolidation	8.8	1.7
Income (+)/ expense (-) in the income statement	-18.9	5.9
Deferred taxes recognized in other comprehensive income	52.0	1.3
Reclassifications to "held for sale"	0.0	-1.9
<b>As of December 31</b>	<b>261.8</b>	<b>220.0</b>

The deferred taxes recognized in other comprehensive income stem from the following:

### Income taxes recognized directly in other comprehensive income

≡ 32

IN € MILLION	2019			2018		
	Before tax	Deferred tax expense/income	After tax	Before tax	Deferred tax expense/income	After tax
Remeasurements of defined benefit pension plans	-79.4	52.1	-27.3	-21.1	1.2	-19.9
Equity instruments at fair value	0.2	0.0	0.2	0.0	0.0	0.0
Debt instruments at fair value	0.2	-0.1	0.1	-0.2	0.1	-0.1
Currency translation of foreign subsidiaries	8.6	0.0	8.6	-5.0	0.0	-5.0
Investments accounted for using the equity method	-2.2	0.0	-2.2	-3.8	0.0	-3.8
<b>Other comprehensive income</b>	<b>-72.6</b>	<b>52.0</b>	<b>-20.6</b>	<b>-30.1</b>	<b>1.3</b>	<b>-28.8</b>

## 12 / NON-CONTROLLING INTERESTS

### Companies with significant non-controlling interests

≡ 33

	TÜV Technische Überwachung Hessen GmbH, Germany		TUV SUD Certification and Testing (China) Co., Ltd., China	
	Dec. 31, 2019	Dec. 31, 2018	Dec. 31, 2019	Dec. 31, 2018
<b>Non-controlling interest</b>	<b>45.0%</b>	<b>45.0%</b>	<b>49.0%</b>	<b>49.0%</b>
IN € MILLION				
Non-current assets	111.0	83.1	48.1	22.5
Current assets	37.8	44.9	101.3	89.7
Non-current liabilities	71.7	53.8	17.9	0.0
Current liabilities	21.9	18.7	80.4	60.6
<b>Net assets</b>	<b>55.2</b>	<b>55.5</b>	<b>51.1</b>	<b>51.6</b>
Carrying amount of non-controlling interests	24.9	25.1	25.1	25.3
	2019	2018	2019	2018
Revenue	156.8	145.8	195.5	178.7
Net income for the year	9.3	11.5	15.3	15.8
Other comprehensive income	-8.2	-0.9	0.4	-0.5
<b>Total comprehensive income</b>	<b>1.1</b>	<b>10.6</b>	<b>15.7</b>	<b>15.3</b>
Net income attributable to non-controlling interests	4.1	5.1	7.5	7.7
Other comprehensive income attributable to non-controlling interests	-3.7	-0.4	0.2	-0.2
Dividends paid to non-controlling interests	0.5	1.3	7.9	6.2
Cash flow from operating activities	19.8	19.0	34.1	21.7
Cash flow from investing activities	-24.1	-9.4	-4.4	-37.1
Cash flow from financing activities	-4.2	-3.0	-25.1	-12.8
<b>Net change in cash and cash equivalents</b>	<b>-8.5</b>	<b>6.6</b>	<b>4.6</b>	<b>-28.2</b>

# Notes to the consolidated statement of financial position

## 13 / INTANGIBLE ASSETS

### Development of intangible assets

≡ 34

IN € MILLION	Goodwill	Licenses and similar rights and customer relationships	Internally generated intangible assets	Other intangible assets	Intangible assets under development	Total
<b>Gross carrying amount as of January 1, 2019</b>	<b>253.5</b>	<b>153.7</b>	<b>44.0</b>	<b>89.3</b>	<b>11.6</b>	<b>552.1</b>
Currency translation differences	3.8	1.7	0.1	0.1	0.0	5.7
Change in scope of consolidation	0.3	0.0	0.0	0.0	0.0	0.3
Additions	0.0	0.8	1.2	15.6	6.2	23.8
Disposals	0.0	0.0	0.0	-14.4	-0.7	-15.1
Reclassifications to "held for sale"	-27.3	-4.0	-2.0	-1.1	-0.2	-34.6
Reclassifications	0.0	2.1	1.9	2.7	-5.3	1.4
<b>Gross carrying amount as of December 31, 2019</b>	<b>230.3</b>	<b>154.3</b>	<b>45.2</b>	<b>92.2</b>	<b>11.6</b>	<b>533.6</b>
Accumulated amortization and impairment losses	-32.4	-88.5	-21.9	-67.8	0.0	-210.6
<b>Carrying amount as of December 31, 2019</b>	<b>197.9</b>	<b>65.8</b>	<b>23.3</b>	<b>24.4</b>	<b>11.6</b>	<b>323.0</b>
<b>Amortization and impairment losses in the fiscal year 2019</b>	<b>0.0</b>	<b>-7.9</b>	<b>-5.1</b>	<b>-8.8</b>	<b>0.0</b>	<b>-21.8</b>
<b>Gross carrying amount as of January 1, 2018</b>	<b>245.4</b>	<b>166.6</b>	<b>33.5</b>	<b>87.3</b>	<b>15.3</b>	<b>548.1</b>
Currency translation differences	2.3	-3.0	0.2	0.1	0.0	-0.4
Change in scope of consolidation	-9.9	-8.5	0.0	-0.4	0.0	-18.8
Acquisitions of subsidiaries	17.1	0.0	0.0	0.0	0.0	17.1
Additions	0.0	0.0	1.5	2.6	7.2	11.3
Disposals	0.0	0.0	0.0	-1.2	-0.2	-1.4
Reclassifications to and reversals of reclassifications from "held for sale"	-1.4	-1.4	0.0	-1.3	0.0	-4.1
Reclassifications	0.0	0.0	8.8	2.2	-10.7	0.3
<b>Gross carrying amount as of December 31, 2018</b>	<b>253.5</b>	<b>153.7</b>	<b>44.0</b>	<b>89.3</b>	<b>11.6</b>	<b>552.1</b>
Accumulated amortization and impairment losses	-52.3	-82.3	-17.7	-74.2	0.0	-226.5
<b>Carrying amount as of December 31, 2018</b>	<b>201.2</b>	<b>71.4</b>	<b>26.3</b>	<b>15.1</b>	<b>11.6</b>	<b>325.6</b>
<b>Amortization and impairment losses in the fiscal year 2018</b>	<b>-13.9</b>	<b>-10.1</b>	<b>-4.2</b>	<b>-8.6</b>	<b>0.0</b>	<b>-36.8</b>

The carrying amounts of goodwill are principally allocated to the following groups of cash generating units (CGUs):

## Goodwill

35

IN € MILLION	Dec. 31, 2019	Dec. 31, 2018
Industry Service	88.4	86.8
Real Estate & Infrastructure	34.9	41.0
Auto Service	34.9	34.9
Product Service	34.9	33.8
Other	4.8	4.7
	<b>197.9</b>	<b>201.2</b>

Intangible assets acquired for a consideration primarily contain software and accreditations as well as values identified in the course of purchase price allocations, such as customer relationships, trademark rights, software and concessions.

Internally generated intangible assets essentially comprise software and development costs.

Intangible assets with finite useful lives are amortized using the straight-line method over a period of two to 20 years.

The item "licenses and similar rights and customer relationships" includes expenses amounting to € 3.4 million (prior year: € 3.9 million) for the license of TÜV SÜD Bursa, Kestel-Bursa, Turkey for regular vehicle inspections. The operator's license is amortized over its term until August 2027 using the straight-line method.

As of the reporting date, the carrying amount of concessions, accreditations and trademark rights with indefinite useful lives comes to € 29.7 million (prior year: € 29.8 million), of which € 20.3 million (prior year: € 20.3 million) relates to the Auto Service CGU and € 9.4 million (prior year: € 9.5 million) to the Industry Service CGU.

Impairment losses of € 1.7 million (prior year: € 2.9 million) were recognized on customer relationships and order backlog as part of the annual impairment test of intangible assets. Of these amounts, € 1.6 million (prior year: € 1.9 million) is attributable to the INDUSTRY Segment and € 0.1 million (prior year: € 1.0 million) to the CERTIFICATION Segment.

An impairment loss of € 13.9 million was recognized on goodwill in the prior year, of which € 6.9 million was attributable to the INDUSTRY Segment, € 5.0 million to the CERTIFICATION Segment and € 2.0 million to the MOBILITY Segment. These amounts largely related to both of the entities in Brazil, for which goodwill and other non-current assets were written off in full due to the legal risks resulting from the dam collapse.

The calculation of fair value less costs to sell per CGU was based on a discount rate of between 6.4% and 7.2% taking income taxes into account (prior year: between 6.8% and 7.5%). As in the prior year, the sustainable growth rate remained unchanged at 1.0% for all CGUs. The calculation of the fair values for the CGUs falls under level 3 of the fair value hierarchy.

Research and development expenses of approximately € 20 million (prior year: € 20 million) were recognized through profit or loss in the reporting year.



## 14 / PROPERTY, PLANT AND EQUIPMENT

### Development of property, plant and equipment

≡ 36

IN € MILLION	Land and buildings	Technical equipment and machinery	Other equipment, furniture and fixtures	Assets under construction	Total
<b>Gross carrying amount as of January 1, 2019</b>	<b>519.6</b>	<b>242.6</b>	<b>309.9</b>	<b>22.7</b>	<b>1,094.8</b>
Currency translation differences	1.1	4.8	1.1	0.0	7.0
Change in scope of consolidation	0.0	0.3	0.1	0.0	0.4
Additions	6.9	27.7	41.0	26.6	102.2
Disposals	-3.9	-9.1	-21.0	0.0	-34.0
Reclassifications to "held for sale"	-0.4	-11.8	-3.3	-0.2	-15.7
Reclassifications	4.8	16.6	5.9	-28.7	-1.4
<b>Gross carrying amount as of December 31, 2019</b>	<b>528.1</b>	<b>271.1</b>	<b>333.7</b>	<b>20.4</b>	<b>1,153.3</b>
Accumulated depreciation and impairment losses	-255.7	-153.8	-218.5	0.0	-628.0
<b>Carrying amount as of December 31, 2019</b>	<b>272.4</b>	<b>117.3</b>	<b>115.2</b>	<b>20.4</b>	<b>525.3</b>
<b>Depreciation and impairment losses in the fiscal year 2019</b>	<b>-15.1</b>	<b>-17.0</b>	<b>-32.0</b>	<b>-0.1</b>	<b>-64.2</b>
<b>Gross carrying amount as of January 1, 2018</b>	<b>505.8</b>	<b>202.3</b>	<b>280.8</b>	<b>21.9</b>	<b>1,010.8</b>
Currency translation differences	0.8	1.8	0.2	0.1	2.9
Change in scope of consolidation	-1.4	-0.2	-2.3	0.0	-3.9
Additions	8.6	15.0	35.5	30.3	89.4
Disposals	-2.0	-3.2	-9.8	-0.2	-15.2
Reclassifications to and reversals of reclassifications from "held for sale"	0.4	10.4	0.2	0.5	11.5
Reclassifications	7.4	16.5	5.3	-29.9	-0.7
<b>Gross carrying amount as of December 31, 2018</b>	<b>519.6</b>	<b>242.6</b>	<b>309.9</b>	<b>22.7</b>	<b>1,094.8</b>
Accumulated depreciation and impairment losses	-243.9	-154.0	-208.2	-0.7	-606.8
<b>Carrying amount as of December 31, 2018</b>	<b>275.7</b>	<b>88.6</b>	<b>101.7</b>	<b>22.0</b>	<b>488.0</b>
<b>Depreciation and impairment losses in the fiscal year 2018</b>	<b>-13.9</b>	<b>-15.1</b>	<b>-27.9</b>	<b>0.0</b>	<b>-56.9</b>

Depreciation of property, plant and equipment is generally charged using the straight-line method. Buildings and parts of buildings are depreciated over a maximum period of 40 years, technical equipment over a period of five to 15 years, and furniture and fixtures over a period of three to 23 years.

Impairment losses to the lower fair value of € 1.6 million (prior year: € 1.4 million) were recognized. Of this amount, € 0.1 million (prior year: € 0.0 million) is attributable to land and buildings, € 0.3 million (prior year: € 0.9 million) to technical equipment and machinery, € 1.1 million (prior year: € 0.5 million) to other equipment, furniture and fixtures and € 0.1 million (prior year: € 0.0 million) to assets under construction.

## 15 / INVESTMENT PROPERTY

### Development of investment property

≡ 37

IN € MILLION

	2019	2018
<b>Gross carrying amount as of January 1</b>	<b>5.2</b>	<b>12.8</b>
Change in scope of consolidation	0.0	-0.3
Disposals	-0.4	-7.7
Reclassifications	0.0	0.4
<b>Gross carrying amount as of December 31</b>	<b>4.8</b>	<b>5.2</b>
Accumulated depreciation	-1.8	-1.9
<b>Carrying amount as of December 31</b>	<b>3.0</b>	<b>3.3</b>
Depreciation and impairment losses in the fiscal year	-0.1	-0.2

Investment properties are measured at amortized cost. As of December 31, 2019, they had a fair value of € 7.3 million (prior year: € 6.8 million).

Measurement at fair value of the investment property is classified as level 3 in the fair value hierarchy. If current market data is not available, the fair value is calculated on the basis of a capitalized earnings method pursuant to the ImmoWertV ["Immobilienwertermittlungsverordnung": German Ordinance on the Valuation of Property] and derived from the standard land values as well as the expected rental income. Essential input factors in the valuation that are not directly observable on the market include property yield, which is significantly influenced by property location and type. The property yield used in the valuation stood at 2.6% (prior year: 4.5%).

## 16 / INVESTMENTS ACCOUNTED FOR USING THE EQUITY METHOD

### Investments accounted for using the equity method

≡ 38

IN € MILLION

	Dec. 31, 2019	Dec. 31, 2018
Investments in joint ventures	45.5	36.4
Investment in an associated company	3.2	3.1
	<b>48.7</b>	<b>39.5</b>

### Joint ventures

TÜV SÜD holds 33.3% of the shares in each of the two Turkish companies TÜVTÜRK Güney Tasit Muayene Istasyonlari Yapim ve Isletim A.S. (TÜVTÜRK Güney), Istanbul, and TÜVTÜRK Kuzey Tasit Muayene Istasyonlari Yapim ve Isletim A.S. (TÜVTÜRK Kuzey), Istanbul. The other venturers of the companies are the Dogus Group, Istanbul, Turkey, and Test A.S., Istanbul, Turkey, a company from the Bridgepoint Group, London, UK, which each also hold one third of the shares. The joint arrangements are structured as separate vehicles. TÜV SÜD has a right to the net assets of the companies. As a result, the joint arrangements are classified as joint ventures and accounted for using the equity method. There are no quoted prices for these companies.

In 2007, the TÜVTÜRK companies concluded a concession agreement with the Turkish government, governing the implementation of regular vehicle inspections throughout Turkey. Using different contractual partners, the joint venture is the exclusive provider of vehicle inspections in Turkey for the 20-year term of the contract. In 2019, 9.9 million (prior year: 9.5 million) vehicle inspections were performed, generating revenue of TRY 2,561.7 million or € 403.0 million (prior year: TRY 1,994.0 million or € 349.8 million).

Other joint ventures are ITV de Levante, S.A. (ITV Levante), Valencia, Spain, Uniscon universal identity control GmbH (Uniscon), Munich, TÜV SÜD DOGUS Ekspertiz ve Danismanlik Hizmetleri Ltd. Sti. (TÜV SÜD DOGUS), Istanbul, Turkey, and FleetCompany GmbH, Oberhaching, which are all consolidated in accordance with the equity method. None of these companies has a quoted market price.

TÜV SÜD has held 50% of the shares in ITV Levante since 2016. The company was founded in 1998 and owns the concessions for three vehicle service stations in the Valencia region, which expire in 2022.

TÜV SÜD acquired 52% of the shares in Uniscon in July 2017. The company was founded in 2009 and is a provider of high-security cloud solutions for storing and processing data. In March 2019, TÜV SÜD completed the acquisition of a further 24% of the shares in Uniscon thereby taking its share in capital to 76%.

TÜV SÜD DOGUS was founded in 2012 and included in the consolidated financial statements for the first time in fiscal year 2018. The company offers certification services for second-hand vehicles and other vehicle-related tests as well as consulting and training services in Turkey.

At the end of October 2019, TÜV SÜD sold 60% of the shares in FleetCompany GmbH. TÜV SÜD retained the remaining 40% share. Since the disposal the previously fully consolidated entity has been run as a joint venture.

The following table summarizes the financial information for the joint ventures. The information presented for TÜVTÜRK's reporting year corresponds to the amounts in the preliminary consolidated financial statements, which were prepared in accordance with IFRSs. For the other joint ventures (ITV Levante, Uniscon and TÜV SÜD DOGUS), the amounts in the companies' separate financial statements and for FleetCompany GmbH, the amounts in the consolidated financial statements have been raised to the fair value.

### Financial data of the joint ventures (100%)

≡ 39

	Consolidated financial statements TÜVTÜRK, Turkey		Other joint ventures	
IN € MILLION	Dec. 31, 2019	Dec. 31, 2018	Dec. 31, 2019	Dec. 31, 2018
Non-current assets	130.2	136.2	46.3	31.9
Current assets	47.8	40.1	34.3	3.6
thereof cash and cash equivalents	29.1	21.2	10.9	1.8
Non-current liabilities	63.2	78.1	17.3	7.4
thereof financial liabilities	7.7	0.4	12.0	3.0
Current liabilities	56.0	52.3	28.4	3.0
thereof financial liabilities	46.4	41.3	14.3	0.2
<b>Net assets</b>	<b>58.8</b>	<b>45.9</b>	<b>34.9</b>	<b>25.1</b>
	2019	2018	2019	2018
Revenue	403.0	349.8	21.9	14.1
Amortization and depreciation	-4.6	-3.4	-4.8	-2.4
Interest income	5.1	4.6	0.1	0.1
Interest expenses	-0.7	-3.6	-0.1	0.0
Income taxes	-15.2	-8.7	-0.3	-0.3
<b>Net income for the year</b>	<b>57.6</b>	<b>28.9</b>	<b>-3.2</b>	<b>-1.1</b>
Other comprehensive income	-0.3	-4.2	0.0	0.0
<b>Total comprehensive income</b>	<b>57.3</b>	<b>24.7</b>	<b>-3.2</b>	<b>-1.1</b>
Dividends received	12.7	4.5	0.1	1.0

In the following table, the financial information is reconciled to the carrying amount of the interest in the joint ventures:

### Reconciliation to the carrying amount of TÜV SÜD's interest in the joint ventures

≡ 40

	Consolidated financial statements TÜVTÜRK, Turkey		Other joint ventures	
IN € MILLION	2019	2018	2019	2018
<b>Net assets (100%) as of January 1</b>	<b>45.9</b>	<b>45.4</b>	<b>25.1</b>	<b>25.4</b>
Net assets from changes in shareholdings	0.0	0.0	14.1	2.5
Total comprehensive income	57.3	24.7	-3.2	-1.1
Dividends paid	-38.2	-13.5	-0.9	-1.4
Currency translation differences	-6.2	-10.7	-0.2	-0.3
<b>Net assets (100%) as of December 31</b>	<b>58.8</b>	<b>45.9</b>	<b>34.9</b>	<b>25.1</b>
Attributable to TÜV SÜD Group	19.6	15.3	27.1	19.7
Dilution of shares due to acquisition of shares in TÜVTÜRK Istanbul 2010 and 2011	-6.4	-6.4	0.0	0.0
Capital gain on disposal of TÜVTÜRK Istanbul 2013	-8.7	-8.7	0.0	0.0
Consolidation effect on acquisition of TÜVTÜRK Istanbul at TÜV SÜD 2013	20.0	20.0	0.0	0.0
Group adjustments and impairment losses	0.0	0.0	-6.1	-3.5
<b>Carrying amount as of December 31</b>	<b>24.5</b>	<b>20.2</b>	<b>21.0</b>	<b>16.2</b>

## 17 / OTHER FINANCIAL ASSETS

### Other financial assets

≡ 41

IN € MILLION	Dec. 31, 2019	Dec. 31, 2018
Investments in affiliated companies	14.1	10.4
Loans to affiliated companies	0.2	0.2
Loans to joint ventures	8.1	3.0
Other participations	12.7	4.5
Loans to other participations	0.4	0.0
Non-current securities	91.2	69.7
Share of policy reserve from employer's pension liability insurance	0.2	0.2
Other loans	5.0	5.3
	<b>131.9</b>	<b>93.3</b>

An amount of € 1.3 million (prior year: € 1.2 million) of the non-current securities is pledged under a trust agreement concluded to secure the value of the settlement claims for employees in the block model of the phased retirement scheme (Altersteilzeit).

## 18 / TRADE RECEIVABLES

### Trade receivables

≡ 42

IN € MILLION	Dec. 31, 2019	Dec. 31, 2018
Contract assets	127.2	118.6
Other trade receivables	368.3	368.6
	<b>495.5</b>	<b>487.2</b>

### Contract assets

≡ 43

IN € MILLION	Dec. 31, 2019	Dec. 31, 2018
Contract assets (gross)	152.0	150.2
Project-related advance payments received	-18.7	-27.1
Loss allowances on contract assets	-6.1	-4.5
	<b>127.2</b>	<b>118.6</b>

€ 141.7 million (prior year: € 120.6 million) of the contract assets will be realized within one year. Of the contract assets with a term of longer than one year, € 1.0 million (prior year: € 1.4 million) is impaired and € 3.2 million (prior year: € 5.7 million) is secured by advance payments received.

Making use of the practical expedient pursuant to IFRS 15.121, performance obligations to be satisfied within one year are not disclosed.

The maturity profile, expected loss rates and loss allowances on other trade receivables are as follows:

≡ 45/46

**Revenue expected in the future from contract assets** ≡ 44

IN € MILLION	2020	2021	2022
Range of revenue expected	135.2 to 161.1	63.1 to 63.4	up to 22.9

**Maturity profile, expected loss rates and loss allowances on other trade receivables as of December 31, 2019**

≡ 45

IN € MILLION

Not due
Past due by up to 30 days
Past due by 31 to 60 days
Past due by 61 to 90 days
Past due by 91 to 180 days
Past due by 181 to 360 days
Past due by more than 360 days

Expected loss rate	Gross carrying amount	Loss allowance	Credit impaired
0.4%	219.6	0.8	No
0.6%	87.9	0.5	No
1.6%	25.2	0.4	No
2.5%	12.2	0.3	No
4.6%	17.3	0.8	No
19.1%	11.0	2.1	No
100.0%	15.0	15.0	No
	<b>388.2</b>	<b>19.9</b>	

**Maturity profile, expected loss rates and loss allowances on other trade receivables as of December 31, 2018**

≡ 46

IN € MILLION

Not due
Past due by up to 30 days
Past due by 31 to 60 days
Past due by 61 to 90 days
Past due by 91 to 180 days
Past due by 181 to 360 days
Past due by more than 360 days

Expected loss rate	Gross carrying amount	Loss allowance	Credit impaired
0.4%	213.9	0.8	No
0.8%	87.2	0.7	No
1.8%	27.1	0.5	No
2.7%	14.9	0.4	No
5.6%	16.1	0.9	No
21.4%	11.7	2.5	No
79.9%	17.4	13.9	No
	<b>388.3</b>	<b>19.7</b>	

There is no indication that customers might not be able to settle their obligations regarding receivables that are neither impaired nor past due.

## 19 / OTHER RECEIVABLES AND OTHER ASSETS

Other non-current assets include receivables of € 1.5 million, which relate to the funds of the subsidiary TÜV SÜD BRASIL ENGENHARIA E CONSULTORIA LTDA. (TÜV SÜD BRASIL, formerly TÜV SÜD Bureau de Projetos e Consultoria Ltda.), São Paulo, Brazil, which were seized by the Brazilian authorities. A corresponding provision was recognized for this amount.

Other receivables and other current assets break down as follows:

Other receivables and other current assets <span style="float: right;">≡ 47</span>		
IN € MILLION	Dec. 31, 2019	Dec. 31, 2018
Receivables from affiliated companies	1.3	1.9
Receivables from other participations	2.9	1.7
Cash pool receivables from related parties	6.9	0.0
Fair values of derivative financial instruments	1.2	4.1
Miscellaneous financial assets	58.7	69.2
<b>Other receivables and other current financial assets</b>	<b>71.0</b>	<b>76.9</b>
Refund claims against insurance companies	4.9	5.0
Miscellaneous non-financial assets	25.4	22.8
<b>Other current non-financial assets</b>	<b>30.3</b>	<b>27.8</b>
	<b>101.3</b>	<b>104.7</b>

## 20 / NON-CURRENT ASSETS AND DISPOSAL GROUPS HELD FOR SALE

As part of its portfolio optimization measures, TÜV SÜD initiated the sale of two subsidiaries in the fiscal year 2019, and entered into negotiations with potential buyers.

The measurement at fair value less costs to sell did not lead to any impairment losses.

In the prior year, impairment losses were recognized on intangible assets (€ 0.3 million) and goodwill (€ 9.0 million) totaling € 9.3 million, which is reported in the income statement under amortization, depreciation and impairment losses and impairment of goodwill respectively and is attributable to the MOBILITY Segment. Furthermore, in the prior year impairment losses were recognized as part of the reversal of a reclassification of a disposal group on goodwill (€ 4.2 million) and property, plant and equipment (€ 1.3 million) totaling € 5.5 million.

Assets and liabilities allocated to the disposal groups break down as follows:

### Disposal groups held for sale as well as associated liabilities ≡ 48

IN € MILLION	Dec. 31, 2019	Dec. 31, 2018
Intangible assets	8.8	11.9
Right-of-use assets	2.4	0.0
Property, plant and equipment	0.4	0.4
Deferred tax assets	0.8	2.3
Trade receivables	15.7	7.4
Other receivables and other current assets	1.2	18.4
Cash and cash equivalents	0.6	2.0
<b>Disposal groups held for sale</b>	<b>29.9</b>	<b>42.4</b>
Non-current liabilities	4.1	0.3
Deferred tax liabilities	0.8	0.4
Trade payables	7.1	1.1
Other current liabilities	5.0	27.0
<b>Liabilities directly associated with disposal groups held for sale</b>	<b>17.0</b>	<b>28.8</b>

All disposal groups recognized in the prior year were sold in 2019.

The land and buildings of € 2.0 million recognized in the prior year under non-current assets and disposal groups held for sale were also sold in the reporting year.

## 21 / EQUITY

The **capital subscribed** of TÜV SÜD AG is divided into 26,000,000 no-par value registered shares with restricted transferability with an imputed value of € 1.00 for each registered share.

The **capital reserve** mainly includes the premium for various capital increases carried out since 1996.

**Revenue reserves** contain the undistributed profits generated in the fiscal year and in the past by the entities included in the consolidated financial statements. Moreover, the revenue reserves record the offsetting of debit and credit differences resulting from capital consolidation for acquisitions prior to December 31, 2005, and the net amount of the adjustments recognized in other comprehensive income in connection with the first-time application of IFRSs as well as new IFRS standards.

Furthermore, remeasurements of defined benefit pension plans recognized in other comprehensive income are allocated directly to revenue reserves, taking into account the related deferred taxes. This reflects the fact that these amounts will not be reclassified to the income statement in future periods.

**Other reserves** record the differences arising from the currency translation of foreign subsidiaries' separate financial statements, effects from the fair value measurement of financial instruments and the income and expenses recognized arising from investments accounted for using the equity method, in each case without effect on income and less the corresponding deferred taxes.

In addition to ensuring the continued existence of the company as a going concern, TÜV SÜD's capital management aims to achieve an adequate return in excess of the cost of capital in order to increase the value of the company in the long term.

## 22 / PROVISIONS FOR PENSIONS AND SIMILAR OBLIGATIONS

<b>Provisions for pensions and similar obligations (net liability)</b>			≡ 49
IN € MILLION	Dec. 31, 2019	Dec. 31, 2018	
Provisions for pensions in Germany	525.6	550.3	
Provisions for pensions in other countries	11.9	7.7	
Provisions for similar obligations in other countries	11.3	10.3	
	<b>548.8</b>	<b>568.3</b>	

The Group's post-employment benefits include both defined contribution and defined benefit plans.

### Defined contribution plans

In the case of defined contribution plans, the company pays contributions to state or private pension funds on a legal, contractual or voluntary basis. Ongoing premium payments (including contributions to state pension insurance) are stated as pension expenses for the respective year; in the fiscal year 2019, they totaled € 79.3 million (prior year: € 74.1 million). In Germany, all new pension commitments entered into are only defined contribution plans.

### Defined benefit plans

Defined benefit plans comprise commitments for retirement, invalidity and surviving dependents' pensions. The Group's obligations vary according to legal, fiscal and economic framework conditions of the country concerned and are usually based on the length of employee service and level of remuneration.

The pension commitments in Germany are integrated schemes similar to those for civil servants, against which the state pension is offset. When the statutory pension rises, this relieves the burden on TÜV SÜD. When pension values fall, however, the obligation of TÜV SÜD increases. These integrated schemes were closed for new hires in 1981 and 1992.

Furthermore, pension obligations were granted temporarily in Germany in accordance with the "dual pension formula". The amount of the pension benefit is based on the qualifying length of service and the pensionable income; different percentage rates are applied to determine the benefit amount depending on whether the income is above or below the income threshold. These defined benefit plans were likewise closed in 1996.

In addition to this, there are defined benefit plans in Germany from company takeovers that are financed via pension funds in accordance with the demand coverage method. Due to the fact that Bayer-Pensionskasse VVaG and Höchster Pensionskasse VVaG were not able to allocate the assets paid in by contributions to specific individuals in the past, the benefit obligations taken over in the form of a defined benefit plan were classified as a multi-employer plan and accounted for as a defined contribution plan pursuant to IAS 19. As the pension funds do not accept any adjustments to the benefits, the claim from the secondary liability allocated to the member employer was reclassified as a separate defined benefit plan and has been accounted for as such since December 31, 2018. As at this point in time it could no longer be assumed that the adjustment of the benefits resulting from these pledges was covered by the pension funds' surplus, the pension provision was increased by the amount of the expected adjustment obligation and has been remeasured accordingly since then.

In Germany, a former employee with company pension claims successfully filed a case against the company pension assessment made in January 2016 under the Versorgungsstatut. A further lawsuit is pending against TÜV SÜD Product Service GmbH, Munich. Based on an expected value model, a provision of € 36.1 million was recognized in the prior year for the change to the assumption of the anticipated benefit level should the labor court ruling be implemented. The remeasurement was recorded as an actuarial loss in 2018. In 2019, the provision was adjusted for the effect from the change in discount rate to € 38.3 million.

There is a defined benefit pension plan in the UK based, among other things, on salary and on length of service. Eligible employees have to pay additional contributions which are agreed between the plan actuary, the trustee and the TÜV SÜD member employer. This pension plan has been closed for new hires.

In other countries there are defined benefit obligations for annuity and termination benefits, based partly on statutory requirements. The resulting obligations are reported under provisions for similar obligations.

#### **Funding the pension plans**

In Germany, new pension commitments are financed as defined contribution plans via the pension funds of Allianz and Alters- und Hinterbliebenen-Unterstützungskasse der Technischen Überwachungs-Vereine e. V.

In order to secure the pension entitlements from the defined benefit plans, there are legally separate funds in Germany and the UK that are structured as contractual trust agreements (CTAs). The transferred funds, which are managed in trust and used only for a specific purpose, are plan assets within the meaning of IAS 19 which are offset against pension obligations.

The German companies' plan assets are primarily managed by TÜV SÜD Pension Trust e. V. and TÜV Hessen Trust e. V. and are irrevocably protected from recourse by the group companies. The plan assets are invested by professional investment managers in accordance with the policy specified by trustees. The objective is for the strategic allocation to be aligned with the pension obligation. This is monitored on a regular basis by performing asset liability management (ALM) studies in consultation with external experts.

As of December 31, 2019, the plan assets comprise shares, fixed-interest securities, real estate, alternative investments, derivatives, cash and cash equivalents and other assets.

TÜV SÜD Pension Trust e. V. is funded such that the pension payments reimbursed by TÜV SÜD Pension Trust e. V. are contributed back into the CTA by the relevant domestic companies and additional funds are made available by the Board of Management of TÜV SÜD AG as part of a new allocation. The actual contribution is determined each year by resolution of the Board of Management.

In the case of domestic group companies that are not part of the contractual trust agreements, the pension obligations are funded from generated cash flows.

To fully fund the obligations, in the UK there is a company-based pension plan according to which the fund assets can only be used to settle the pension obligations. If, calculated in accordance with actuarial principles, there is a deficit in these pension plans, the member employer TÜV SÜD (UK) Ltd., Fareham, Hampshire, UK, and the trustee must agree on a financing plan that is renewed every three years and has to be presented to The Pension Regulator (TPR) for approval. To finance the deficit of around GBP 12.9 million determined at the end of 2016, the member employer agreed to make an annual contribution of GBP 2.2 million until mid-2021 in addition to the regular employer's contribution. The next actuarial review set after three years is currently underway. As soon as the findings are available, a further financing plan will be suggested to the supervisory authority TPR.

Because of the defined benefit plans, the TÜV SÜD Group is subject to duration risks, foreign currency risks, interest and credit spread risks, share price risks, liquidity risks, investment risks for infrastructure projects and property market risks.

In the fiscal year 2020, the Group intends to make a contribution to plan assets of € 79.2 million in order to further reduce the existing deficit (the planned figure for 2019 was € 78.8 million, the end-of-year figure, including one-off additions of € 50.5 million, amounted to € 116.7 million).

The funded status of defined benefit obligations as well as a reconciliation to the amounts recognized in the statement of financial position are shown in the table below:



## Funded status of the defined benefit obligation

≡ 50

	Germany		Other countries		Total	
IN € MILLION	2019	2018	2019	2018	2019	2018
Defined benefit obligation	2,128.2	1,955.7	128.1	108.7	2,256.3	2,064.4
Fair value of plan assets	1,602.6	1,405.4	104.9	90.7	1,707.5	1,496.1
<b>Carrying amount as of December 31 (Net defined benefit liability)</b>	<b>525.6</b>	<b>550.3</b>	<b>23.2</b>	<b>18.0</b>	<b>548.8</b>	<b>568.3</b>

The development compared with prior fiscal years is shown below:

## Development of funded status

≡ 51

IN € MILLION	2019	2018	2017	2016	2015
Defined benefit obligation	2,256.3	2,064.4	2,059.9	2,089.6	2,026.3
Plan assets	1,707.5	1,496.1	1,437.3	1,340.2	1,253.5
<b>Funded status as of December 31</b>	<b>548.8</b>	<b>568.3</b>	<b>622.6</b>	<b>749.4</b>	<b>772.8</b>

## Change in net defined benefit liability

### Development of defined benefit obligation

≡ 52

	2019			2018		
IN € MILLION	Germany	Other countries	Total	Germany	Other countries	Total
<b>Defined benefit obligation as of January 1</b>	<b>1,955.7</b>	<b>108.7</b>	<b>2,064.4</b>	<b>1,939.0</b>	<b>120.9</b>	<b>2,059.9</b>
Service cost	23.2	2.4	25.6	24.3	3.0	27.3
Interest cost	32.0	2.8	34.8	32.3	2.7	35.0
Benefits paid	-76.2	-5.5	-81.7	-73.5	-4.4	-77.9
Contributions by the beneficiaries	0.0	0.3	0.3	0.0	0.5	0.5
Plan curtailments and settlements	-1.5	0.0	-1.5	0.0	0.0	0.0
Gains (-) and losses (+) from remeasurements						
Actuarial gains and losses from demographic assumptions	-61.2	-0.3	-61.5	25.4	-3.1	22.3
Actuarial gains and losses from financial assumptions	226.9	14.6	241.5	42.4	-7.9	34.5
Actuarial gains and losses from experience adjustments	32.6	-0.1	32.5	-33.6	-0.3	-33.9
Past service cost	0.0	-0.1	-0.1	0.0	-0.6	-0.6
Change in scope of consolidation	0.0	-0.1	-0.1	-0.4	-2.1	-2.5
Reclassifications to "held for sale"	-2.4	0.0	-2.4	0.0	0.0	0.0
Currency translation differences and other	-0.9	5.4	4.5	-0.2	0.0	-0.2
<b>Defined benefit obligation as of December 31</b>	<b>2,128.2</b>	<b>128.1</b>	<b>2,256.3</b>	<b>1,955.7</b>	<b>108.7</b>	<b>2,064.4</b>
thereof unfunded	287.0	10.0	297.0	263.5	8.9	272.4
thereof partially funded	1,841.2	118.1	1,959.3	1,692.2	99.8	1,792.0

Around 57% (prior year: 56%) of the defined benefit obligation is allocable to pensioners, and 43% (prior year: 44%) to active employees and vested beneficiaries. The weighted average duration of the obligations is 15.2 years (prior year: 14.5 years).

The main factor influencing the development of the defined benefit obligation is the underlying discount rate, which in Germany fell by 75 base points from 1.7% to 0.95% in a year-on-year comparison and resulted in high actuarial losses from financial assumptions. In the UK, the development of the capital markets also made it necessary to reduce the discount rate by 90 base points, with resulting actuarial losses of € 13.0 million. By contrast, raising the retirement age for remeasurement from 63 to 65 in Germany led to gains from demographic assumptions.

Pension payments of € 81.0 million are expected for the fiscal year 2020.

## Development of plan assets

≡ 53

IN € MILLION	2019			2018		
	Germany	Other countries	Total	Germany	Other countries	Total
<b>Fair value of plan assets as of January 1</b>	<b>1,405.4</b>	<b>90.7</b>	<b>1,496.1</b>	<b>1,339.7</b>	<b>97.6</b>	<b>1,437.3</b>
Interest income	24.0	2.5	26.5	22.8	2.3	25.1
Gains (+) and losses (–) from remeasurements						
Return on plan assets excluding interest income	125.6	7.5	133.1	8.9	–7.1	1.8
Contributions by the employer	112.7	4.0	116.7	96.4	3.8	100.2
Contributions by the beneficiaries	0.0	0.3	0.3	0.0	0.5	0.5
Benefits paid	–64.2	–4.9	–69.1	–62.3	–3.9	–66.2
Change in scope of consolidation	0.0	0.0	0.0	–0.1	–2.0	–2.1
Reclassifications to “held for sale”	–0.9	0.0	–0.9	0.0	0.0	0.0
Currency translation differences and other	0.0	4.8	4.8	0.0	–0.5	–0.5
<b>Fair value of plan assets as of December 31</b>	<b>1,602.6</b>	<b>104.9</b>	<b>1,707.5</b>	<b>1,405.4</b>	<b>90.7</b>	<b>1,496.1</b>
Actual return on plan assets	149.6	10.0	159.6	31.7	–4.8	26.9

The net defined benefit liability thus changed as follows:

## Development of the net defined benefit liability

≡ 54

IN € MILLION	2019			2018		
	Germany	Other countries	Total	Germany	Other countries	Total
<b>As of January 1</b>	<b>550.3</b>	<b>18.0</b>	<b>568.3</b>	<b>599.3</b>	<b>23.3</b>	<b>622.6</b>
Service cost	23.2	2.4	25.6	24.3	3.0	27.3
Net interest cost	8.0	0.3	8.3	9.5	0.4	9.9
Contributions by the employer	-112.7	-4.0	-116.7	-96.4	-3.8	-100.2
Benefits paid	-12.0	-0.6	-12.6	-11.2	-0.5	-11.7
Plan curtailments and settlements	-1.5	0.0	-1.5	0.0	0.0	0.0
Gains (-) and losses (+) from remeasurements						
Actuarial gains and losses from demographic assumptions	-61.2	-0.3	-61.5	25.4	-3.1	22.3
Actuarial gains and losses from financial assumptions	226.9	14.6	241.5	42.4	-7.9	34.5
Actuarial gains and losses from experience adjustments	32.6	-0.1	32.5	-33.6	-0.3	-33.9
Return on plan assets excluding interest income	-125.6	-7.5	-133.1	-8.9	7.1	-1.8
Past service cost	0.0	-0.1	-0.1	0.0	-0.6	-0.6
Change in scope of consolidation	0.0	-0.1	-0.1	-0.3	-0.1	-0.4
Reclassifications to "held for sale"	-1.5	0.0	-1.5	0.0	0.0	0.0
Currency translation differences and other	-0.9	0.6	-0.3	-0.2	0.5	0.3
<b>As of December 31</b>	<b>525.6</b>	<b>23.2</b>	<b>548.8</b>	<b>550.3</b>	<b>18.0</b>	<b>568.3</b>

## Plan assets

### Composition of plan assets

≡ 55

IN € MILLION	Dec. 31, 2019	Dec. 31, 2018
Shares (prior to hedging)	447.5	338.3
Fixed-interest securities	556.5	569.2
Share in investment company for infrastructure projects and private debt funds	238.6	159.3
Real estate and similar assets – used by third parties, vacant or under construction	308.0	251.5
Other (including cash and cash equivalents)	156.9	177.8
	<b>1,707.5</b>	<b>1,496.1</b>

All shares and fixed-interest securities are traded at the prices quoted on active markets.

The investment strategy for the plan assets is geared to covering the deficit between plan assets and pension obligations on a long-term basis. This is based on the increase in the obligations adjusted for current service cost and pension payments. The investment strategy also includes a controlled downside risk (low probability of a sharp fall in the coverage ratio) and is determined at regular intervals in ALM studies. The resulting target allocation includes an optimized risk return profile, taking into account the interdependency of plan assets and obligations.

The risks for plan assets stem chiefly from the investments in the Oktagon fund. Among others, these include interest and credit spread risks which, however, run counter to changes in the pension obligations. Further risks stem from fluctuations in share prices. Interest and share price risks can be hedged as needed by means of publicly traded futures in a dedicated control segment. Most of the foreign currency risks relating to investments in fixed-interest securities are hedged in full. The investment in Alters- und Hinterbliebenen-Versicherung der Technischen Überwachungs-Vereine -VvaG- ["AHV", an old-age

and surviving dependents pensions fund for technical inspection associations] also entails interest, credit spread and share price risks. In the case of infrastructure investments, risks include illiquidity and regulatory intervention by individual countries. Investments in real estate involve technical risks (maintenance) and economic risks (rental price changes for new lets, level of occupancy).

Risk management takes a holistic approach, taking into account the development of plan assets and pension obligations. The main risk relates to a deterioration in the funded status (coverage shortfall) on account of negative developments of the pension obligations and/or plan assets. Risk management is based on the risk budget for pension risks, which breaks down into a budget for non-controllable risks (e.g., the portion of pension obligations not covered by plan assets) and for controllable risks. The controllable risks relate first and foremost to the risks in the CTA. The risk budget requirement and exploitation are determined using value-at-risk methods and monitored periodically.

After the implementation of the findings of the most recent ALM study in 2017 led to further optimization of the risk return profile of all assets, the next ALM study is planned for 2020.

## Defined benefit obligation

### Actuarial assumptions for determining the defined benefit obligation

≡ 56

IN %	Dec. 31, 2019		Dec. 31, 2018	
	Germany	Other countries	Germany	Other countries
Discount rate	0.95	1.85	1.70	2.62
Future salary increases	2.25	2.02	2.25	2.06
Future pension increases	1.80	2.95	1.80	3.10

The actuarial assumptions were continuously derived in accordance with uniform principles compared to the prior year and set out for each country depending on the respective economic circumstances.

The discount rate is based on the return on fixed-interest corporate bonds with the same term and in the same currency that rating agencies have awarded an AA rating.

Adjustment for forecast long-term inflation is taken into account in the development of future salary and pension increase. The respective inflation rate does not exceed the interest rate observable on the market.

As far as life expectancy is concerned, the mortality tables 2018 G from HEUBECK-RICHTTAFELN-GmbH have been applied unchanged in Germany since 2018. In the prior year, this was in large part the reason behind the actuarial losses from demographic assumptions. Outside Germany, the customary mortality tables for the respective country were used.

A change in the aforementioned assumptions used to determine the defined benefit obligation in Germany as of December 31, 2019 would lead to a corresponding change in this figure. An analysis of historical changes in parameters from this perspective showed that if there was a change in the discount rate of up to 100 base points, a change of up to 75 base points

for the development of future salary and pension increase as well as an increase of up to 5.3% for life expectancy up to the next measurement date can be regarded as realistic. The change in the underlying assumptions regarding life expectancy translates into a one-year increase in life expectancy for a currently 65-year-old man. The respective effects from such a change in measurement are presented on the assumption that all other parameters remain constant.

## Sensitivity analyses

≡ 57

IN € MILLION	DBO Germany as of December 31, 2019		DBO Germany as of December 31, 2018	
	Increase	Decrease	Increase	Decrease
Discount rate (1% variation)	-308.3	390.1	-268.0	338.4
Future salary/pension increases (0.75% variation)	256.7	-216.4	230.7	-194.7
Life expectancy (5.3% increase for all persons)	142.3	-	85.7	-

## Net pension expense

The assumptions made to calculate the defined benefit obligation as of the respective measurement date (December 31) apply to both the calculation of the interest cost and the current service cost as well as to the interest income on plan assets in the following fiscal year. The assumptions used in the calculation of the pension expenses for the fiscal year 2019 were therefore already defined as of the reporting date December 31, 2018.

The key assumptions in calculating pension expenses are presented in the following overview:

## Actuarial assumptions for determining pension expenses

≡ 58

IN %	2019		2018	
	Germany	Other countries	Germany	Other countries
Discount rate	1.70	2.62	1.70	2.30
Future salary increases	2.25	2.06	2.25	2.22
Future pension increases	1.80	3.10	1.80	3.20

The expense recognized for defined benefit pension plans in total comprehensive income for the fiscal years 2019 and 2018 breaks down as follows:

#### Expenses (+)/Income (–) recognized for defined benefit plans in total comprehensive income

≡ 59

IN € MILLION	2019			2018		
	Germany	Other countries	Total	Germany	Other countries	Total
Service cost	23.2	2.4	25.6	24.3	3.0	27.3
Net interest cost	8.0	0.3	8.3	9.5	0.4	9.9
Past service cost	0.0	–0.1	–0.1	0.0	–0.6	–0.6
Gains (–) and losses (+) from plan curtailments and settlements	0.3	0.0	0.3	0.0	0.0	0.0
<b>Expenses for defined benefit plans recognized in the consolidated income statement</b>	<b>31.5</b>	<b>2.6</b>	<b>34.1</b>	<b>33.8</b>	<b>2.8</b>	<b>36.6</b>
Return on plan assets excluding interest income	–125.6	–7.5	–133.1	–8.9	7.1	–1.8
Gains (–) and losses (+) from remeasurements of the defined benefit obligation	198.3	14.2	212.5	34.2	–11.3	22.9
<b>Remeasurements of defined benefit plans recognized in other comprehensive income</b>	<b>72.7</b>	<b>6.7</b>	<b>79.4</b>	<b>25.3</b>	<b>–4.2</b>	<b>21.1</b>
<b>Expenses recognized for defined benefit plans in total comprehensive income</b>	<b>104.2</b>	<b>9.3</b>	<b>113.5</b>	<b>59.1</b>	<b>–1.4</b>	<b>57.7</b>

## 23 / OTHER PROVISIONS

#### Development of other provisions

≡ 60

IN € MILLION	Personnel provisions	Litigation, damages and similar obligations	Restructuring provisions	Miscellaneous provisions	Other provisions
<b>As of January 1, 2019</b>	<b>136.9</b>	<b>99.7</b>	<b>10.0</b>	<b>17.5</b>	<b>264.1</b>
<b>thereof non-current</b>	<b>28.8</b>	<b>73.5</b>	<b>0.0</b>	<b>9.0</b>	<b>111.3</b>
Currency translation differences	0.5	0.0	0.0	0.1	0.6
Additions	110.4	4.4	0.6	8.3	123.7
Utilization	–100.5	–18.3	–0.2	–4.5	–123.5
Reversals	–6.9	–0.8	–0.1	–0.6	–8.4
Unwinding of the discount	2.9	0.0	0.0	0.0	2.9
Reclassifications to “held for sale”	–1.0	–0.7	0.0	–0.1	–1.8
<b>As of December 31, 2019</b>	<b>142.3</b>	<b>84.3</b>	<b>10.3</b>	<b>20.7</b>	<b>257.6</b>
<b>thereof non-current</b>	<b>34.0</b>	<b>63.7</b>	<b>0.1</b>	<b>9.5</b>	<b>107.3</b>

The personnel provisions mainly pertain to variable remuneration for staff and management including associated social security contributions, obligations arising from the agreements under the German phased retirement scheme, medical benefits and long-service bonuses.

Provisions for litigation costs, damages and similar obligations largely include the provisions for liability risks and advisory expenses in connection with the dam collapse in Brazil, which are counterbalanced by contingent assets from insurance benefits in the single-digit million euro range. Please refer to

our explanations under note 29 "Pending and imminent legal proceedings".

Overall, obligations are counterbalanced by reimbursement claims from insurance companies amounting to € 4.9 million (prior year: € 5.0 million), which were recognized as current assets.

The restructuring provisions primarily relate to adopted and announced restructuring measures in the INDUSTRY Segment.

## 24 / FINANCIAL DEBT

### Financial debt

≡ 61

IN € MILLION	Non-current		Current		Total	
	Dec. 31, 2019	Dec. 31, 2018	Dec. 31, 2019	Dec. 31, 2018	Dec. 31, 2019	Dec. 31, 2018
Liabilities to banks	0.0	0.0	2.4	4.1	2.4	4.1
Finance lease liabilities pursuant to IAS 17	0.0	0.6	0.0	0.1	0.0	0.7
Cash pool liabilities to affiliated companies	0.0	0.0	0.3	0.7	0.3	0.7
Cash pool liabilities to other related parties	0.0	0.0	0.0	1.9	0.0	1.9
Loan liabilities to third parties	2.4	0.7	0.0	0.0	2.4	0.7
	<b>2.4</b>	<b>1.3</b>	<b>2.7</b>	<b>6.8</b>	<b>5.1</b>	<b>8.1</b>

## 25/ TRADE PAYABLES

### Trade payables

≡ 62

IN € MILLION	Dec. 31, 2019	Dec. 31, 2018
Contract liabilities	96.5	80.1
Other trade payables	84.8	70.5
	<b>181.3</b>	<b>150.6</b>

Of the contract liabilities, an amount of € 51.9 million (prior year: € 38.2 million) will be invoiced within one year. In the reporting year, € 77.9 million (prior year: € 56.6 million) of the prior-year contract liabilities was realized. Contract liabilities contain advance payments received of € 33.8 million (prior year: € 28.0 million).

## 26 / OTHER LIABILITIES

### Other liabilities

≡ 63

IN € MILLION	Non-current		Current		Total	
	Dec. 31, 2019	Dec. 31, 2018	Dec. 31, 2019	Dec. 31, 2018	Dec. 31, 2019	Dec. 31, 2018
Liabilities to affiliated companies	0.0	0.0	4.7	4.5	4.7	4.5
Liabilities to other participations	0.0	0.0	1.1	0.4	1.1	0.4
Fair values of derivative financial instruments	0.0	0.0	1.5	3.4	1.5	3.4
Outstanding invoices	0.0	0.0	44.2	42.4	44.2	42.4
Miscellaneous financial liabilities	0.1 <sup>1</sup>	7.2 <sup>1</sup>	34.2	15.1	34.3 <sup>1</sup>	22.3 <sup>1</sup>
<b>Other financial liabilities</b>	<b>0.1<sup>1</sup></b>	<b>7.2<sup>1</sup></b>	<b>85.7</b>	<b>65.8</b>	<b>85.8<sup>1</sup></b>	<b>73.0<sup>1</sup></b>
Vacation claims, flexitime and overtime credits	0.0	0.0	48.9	55.2	48.9	55.2
Other taxes	0.0	0.0	44.4	43.7	44.4	43.7
Social security liabilities	0.0	0.0	6.2	5.7	6.2	5.7
Miscellaneous non-financial liabilities	0.0	0.0	27.1	24.8	27.1	24.8
<b>Other non-financial liabilities</b>	<b>0.0</b>	<b>0.0</b>	<b>126.6</b>	<b>129.4</b>	<b>126.6</b>	<b>129.4</b>
	<b>0.1<sup>1</sup></b>	<b>7.2<sup>1</sup></b>	<b>212.3</b>	<b>195.2</b>	<b>212.4<sup>1</sup></b>	<b>202.4<sup>1</sup></b>

1 \_ Thereof due in more than five years: € 0.0 million (prior year: € 6.4 million).

## 27 / LEASES

As a lessee, TÜV SÜD rents real estate, mainly test centers, testing facilities and office buildings. The lease conditions of these agreements are negotiated on an individual basis and contain a range of differing conditions. These primarily include options to extend and terminate leases. These kinds of contractual arrangements are used to provide TÜV SÜD with the greatest possible flexibility in respect of the contract portfolio. Just below 15% of the real estate agreements have originally agreed terms of fifteen years and over. In respect of lease payments, several lease agreements provide for additional rent payments based on changes to local price indices.

Lease agreements for other equipment largely relate to leases for vehicles, which have been concluded over a fixed term of three to five years.

The Group rents IT equipment with contractual terms of three and four years. These lease agreements are based on low-value assets. As the Group applies the exemption under IFRS 16, neither a right-of-use asset nor a lease liability is recognized for these agreements.

The following table shows the carrying amounts of the right-of-use assets and the changes during the reporting period:

### Right-of-use assets

≡ 64

IN € MILLION				Total
	Land and buildings	Technical equipment and machinery	Other equipment, furniture and fixtures	
Additions 2019	44.3	0.0	16.4	60.7
Depreciation and impairment losses 2019	49.6	0.6	13.9	64.1
Carrying amounts as of December 31, 2019	235.2	0.4	25.5	261.1



As of the reporting date, the right-of-use assets are counter-balanced by the following lease liabilities:

**Maturity profile of lease liabilities based on undiscounted lease payments**

≡ 65

IN € MILLION

Lease payments due within one year	60.3
Lease payments due in one to five years	138.4
Lease payments due in more than five years	88.6
<b>Total undiscounted lease liabilities as of December 31, 2019</b>	<b>287.3</b>
<b>Lease liabilities in the statement of financial position as of December 31, 2019</b>	<b>263.8</b>
thereof current	55.2
thereof non-current	208.6

Possible future cash outflows of € 17.8 million were not included in the lease liability as it is not reasonably certain that the agreements will be extended. Leases into which the Group has entered into as a lessee, but which have not yet commenced, result in possible future cash outflows of € 13.6 million.

In 2019, payments for leases recognized pursuant to IFRS 16 amounted to € 66.1 million. The non-cash increases of lease liabilities (additions, interest, disposals) amount to € 60.2 million.

The expenses recognized in the income statement for leases recognized pursuant to IFRS 16 totaled € 70.4 million in fiscal year 2019. Furthermore, expenses for short-term leases of € 5.8 million and expenses for leases of low-value assets of € 2.1 million were incurred. Both of these were recognized under other expenses.

Rental and lease expenses for fiscal year 2018 amounted to € 72.6 million.

## 28 / CONTINGENT ASSETS AND LIABILITIES AND OTHER FINANCIAL OBLIGATIONS

There are contingent assets from insurance benefits in the single-digit million euro range.

The table below presents the contingent liabilities for which the main debtor is not a consolidated entity:

**Contingent liabilities**

≡ 66

IN € MILLION

	Dec. 31, 2019	Dec. 31, 2018
Guarantee obligations	56.1	41.0
Contingent liabilities arising from litigation risks	1.7	1.3
Miscellaneous contingent liabilities	2.0	1.8
	<b>59.8</b>	<b>44.1</b>

The guarantee obligations include a guarantee issued for T.P.S. Benefits Scheme Limited, Fareham, UK. The guarantee reduces the insurance fees charged by the Pension Protection Fund, Surrey, UK, which the UK companies participating in T.P.S. Benefits Scheme Limited, Fareham, UK, would otherwise have to pay on an annual basis. Another guarantee relates to unused swap lines of an American subsidiary as of the reporting date.

The obligations were entered into for current business transactions where no utilization is to be expected based on the assessment of the current business situation.

There are guarantee obligations for joint ventures in the amount of € 3.6 million.

Apart from the contingent liabilities reported, the entities of TÜV SÜD Group have assumed joint and several liability in relation to interests in civil law associations, other partnerships and joint ventures.

Please refer to note 29 in respect of the disclosure on the contingent liabilities in association with pending and imminent legal proceedings.

There are other financial obligations in the amount of € 18.5 million (prior year: € 14.4 million) and these largely relate to service and maintenance agreements.

## 29 / PENDING AND IMMINENT LEGAL PROCEEDINGS

An action relating to the current company pension assessment was successfully filed against TÜV SÜD e. V. Another lawsuit is pending against TÜV SÜD Product Service GmbH, Munich. Based on an expected value model, a corresponding provision was recognized for the possible effects of the implementation of the rulings. Please refer to note 22 "Provisions for pensions and similar obligations" and the opportunities and risks report in the combined management report.

On January 25, 2019, the tailings dam of a retention basin for an iron ore mine belonging to mining company Vale S.A. close to the village of Brumadinho, Brazil, collapsed. The dam's stability had been certified by TÜV SÜD BRASIL in September 2018. After the accident, Vale S.A., who as the operator of the dam is responsible for operational safety, referred to external appraisals, including that issued by TÜV SÜD BRASIL on the safety of the dam.

Lawsuits claiming damages have been filed and threatened in connection with the certificate of stability issued in 2018. We believe that it is probable that further lawsuits will be filed against TÜV SÜD, in particular as the possible bases for these claims do not require there to be any culpability, rather only causality. Probability-weighted scenarios have been rolled forward from the prior year on the basis of the information available at present in order to realistically estimate the exposure. However, as the aforementioned investigations and TÜV SÜD's internal investigations are still ongoing and the factors of influence to be considered in a legal dispute are multi-faceted, the actual exposure may deviate from these estimates.

The provisions recognized in the prior year for legal defense and advisory costs of € 33.0 million decreased to € 28.5 million as of the reporting date. The utilization 2019 for the costs to clarify the facts of matter and defend our own legal position of engaging external third parties was counterbalanced by an addition based on the lawsuits that have been filed to date. From these it is expected that the proceedings will go on for longer and be more complex than was assumed in the prior year. Part of the legal defense costs are covered by an insurance policy. As these claims are currently not virtually certain in terms of their amount, they have not been recognized as an asset. However, since they are more probable than not, a contingent asset in the single-digit million euro range has been assumed.

For further liability risks, in particular personal injury, the management of TÜV SÜD estimates the likelihood of a utilization as possible; a contingent liability is therefore in place for this.

Other disclosures on the estimates in respect of the financial implications and disclosures on uncertainty regarding the amount or maturity of amounts of the provisions and contingent liabilities have not been made in this regard pursuant to IAS 37.92 so as not to compromise the findings of potential proceedings and the Group's interests.

Should the outcome of the legal proceedings find to the detriment of TÜV SÜD, this may result in substantial damage payments and other payments that could have a significant negative impact upon the Group's financial performance and position and its reputation. The ability of the Brazilian subsidiary TÜV SÜD BRASIL and its direct shareholder TÜV SÜD SFDK Laboratório de Análise de Produtos EIRELI, São Paulo, Brazil, to continue as a going concern is jeopardized should these companies be held liable for the dam collapse in Brazil and no further financial support were to be provided by the shareholders. For further explanations please refer to the sections "Compliance and other risks" and "Overall statement on risks faced by the Group" in the combined management report.

Apart from this, TÜV SÜD AG and its subsidiaries are not involved in any litigation which could have a material impact on the economic or financial situation of the individual entities or the Group as a whole.

## Other notes

### 30 / ADDITIONAL INFORMATION ON FINANCIAL INSTRUMENTS

#### Carrying amounts by measurement category in accordance with IFRS 9

≡ 67

IN € MILLION

	Dec. 31, 2019	Dec. 31, 2018
<b>Financial assets</b>		
Debt instruments at amortized cost	629.7	618.4
Debt instruments at fair value through other comprehensive income	92.4	81.1
Financial assets at fair value through profit or loss	30.5	37.8
Equity instruments at fair value through other comprehensive income	29.3	18.0
<b>Financial liabilities</b>		
Financial liabilities at amortized cost	167.1	140.9
Financial liabilities at fair value through profit or loss	8.6	10.0

Only insignificant valuation allowances were recognized for debt instruments measured at fair value through other comprehensive income.

The following tables show the carrying amounts of financial instruments and, where they are measured at fair value, the respective classification in the fair value hierarchy. ≡ 68 / 69

## Carrying amounts and fair values of financial instruments as of December 31, 2019

68

IN € MILLION	Fair value hierarchy				
	Carrying amounts	Fair value	thereof level 1	thereof level 2	thereof level 3
Other financial assets <sup>1,2,3</sup>	131.7	91.2	91.2	0.0	0.0
Other non-current assets <sup>2,3</sup>	7.6	0.3	0.0	0.3	0.0
<b>Non-current assets</b>	<b>139.3</b>	<b>91.5</b>	<b>91.2</b>	<b>0.3</b>	<b>0.0</b>
Trade receivables <sup>2</sup>	368.3	–	–	–	–
Other receivables and other current assets <sup>2,3</sup>	71.0	34.1	30.2	3.9	0.0
Cash and cash equivalents <sup>2</sup>	203.3	–	–	–	–
<b>Current assets</b>	<b>642.6</b>	<b>34.1</b>	<b>30.2</b>	<b>3.9</b>	<b>0.0</b>
<b>Total financial assets</b>	<b>781.9</b>	<b>125.6</b>	<b>121.4</b>	<b>4.2</b>	<b>0.0</b>
Non-current financial debt <sup>2</sup>	2.4	–	–	–	–
Other non-current liabilities <sup>2,3</sup>	0.1	–	–	–	–
<b>Non-current liabilities</b>	<b>2.5</b>	<b>–</b>	<b>–</b>	<b>–</b>	<b>–</b>
Current financial debt <sup>2</sup>	2.7	–	–	–	–
Trade payables <sup>2</sup>	84.8	–	–	–	–
Other current liabilities <sup>2,3</sup>	85.7	8.6	0.0	1.5	7.1
<b>Current liabilities</b>	<b>173.2</b>	<b>8.6</b>	<b>0.0</b>	<b>1.5</b>	<b>7.1</b>
<b>Total financial liabilities<sup>4</sup></b>	<b>175.7</b>	<b>8.6</b>	<b>0.0</b>	<b>1.5</b>	<b>7.1</b>

1 \_ Includes investments in equity instruments that do not have a quoted price in an active market.

2 \_ Includes financial assets or liabilities for which the carrying amount is a reasonable approximation of fair value.

3 \_ Includes financial assets or liabilities that are not within the scope of IFRS 7.

4 \_ Excludes lease liabilities.

## Carrying amounts and fair values of financial instruments as of December 31, 2018

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IN € MILLION	Fair value hierarchy				
	Carrying amounts	Fair value	thereof level 1	thereof level 2	thereof level 3
Other financial assets <sup>1,2,3</sup>	93.1	69.7	69.7	0.0	0.0
Other non-current assets <sup>2,3</sup>	7.1	1.9	0.0	0.3	1.6
<b>Non-current assets</b>	<b>100.2</b>	<b>71.6</b>	<b>69.7</b>	<b>0.3</b>	<b>1.6</b>
Trade receivables <sup>2</sup>	368.6	–	–	–	–
Other receivables and other current assets <sup>2,3</sup>	76.9	50.3	44.0	4.7	1.6
Cash and cash equivalents <sup>2</sup>	209.6	–	–	–	–
<b>Current assets</b>	<b>655.1</b>	<b>50.3</b>	<b>44.0</b>	<b>4.7</b>	<b>1.6</b>
<b>Total financial assets</b>	<b>755.3</b>	<b>121.9</b>	<b>113.7</b>	<b>5.0</b>	<b>3.2</b>
Non-current financial debt <sup>2</sup>	1.3	0.6	0.0	0.6	0.0
Other non-current liabilities <sup>2,3</sup>	7.2	6.6	0.0	0.0	6.6
<b>Non-current liabilities</b>	<b>8.5</b>	<b>7.2</b>	<b>0.0</b>	<b>0.6</b>	<b>6.6</b>
Current financial debt <sup>2</sup>	6.8	0.1	0.0	0.1	0.0
Trade payables <sup>2</sup>	70.5	–	–	–	–
Other current liabilities <sup>2,3</sup>	65.8	3.4	0.0	3.4	0.0
<b>Current liabilities</b>	<b>143.1</b>	<b>3.5</b>	<b>0.0</b>	<b>3.5</b>	<b>0.0</b>
<b>Total financial liabilities</b>	<b>151.6</b>	<b>10.7</b>	<b>0.0</b>	<b>4.1</b>	<b>6.6</b>

1 \_ Includes investments in equity instruments that do not have a quoted price in an active market.

2 \_ Includes financial assets or liabilities for which the carrying amount is a reasonable approximation of fair value.

3 \_ Includes financial assets or liabilities that are not within the scope of IFRS 7.

There were no reclassifications out of or into another level of the fair value hierarchy in the current fiscal year.

The financial instruments allocated to level 2 are derivatives and securities. At level 3, mainly liabilities from contingent purchase price components and purchase price liabilities from put options are recognized.

The calculation of the fair values of forward exchange transactions and currency swaps is based on FX forward swap market data used to interpolate the current forward points (FX forward swaps) on a straight-line basis from the information available from Reuters and add them to the spot rate. This makes it possible to calculate the current price at which the hedge can be closed out.

The fair value of interest derivatives is calculated using discounted cash flow methods. To this end, the total value of an interest derivative is broken down into its individual cash flows, each of which is measured individually. Forward interest rates and valuations are recognized at the mean of the buying and the selling rate. The interpolation and any simulations are based on nominal interest, which is used to determine the zero interest rates in order to derive the discount factors. For interest derivatives in foreign currency, the present value is translated to euro at the mean of the buying and the selling rate.

The table below shows the development of the financial instruments recorded in level 3:

### Reconciliation of financial instruments in level 3

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IN € MILLION	Assets		Equity and liabilities	
	2019	2018	2019	2018
<b>As of January 1</b>	<b>3.2</b>	<b>0.0</b>	<b>6.6</b>	<b>12.8</b>
Currency translation differences	0.0	0.0	-0.1	0.1
Additions	0.0	3.2	0.0	0.0
Changes recognized with an effect on income	-1.6	0.0	0.7	0.4
Changes with an effect on cash and cash equivalents	-1.6	0.0	-0.1	-6.7
<b>As of December 31</b>	<b>0.0</b>	<b>3.2</b>	<b>7.1</b>	<b>6.6</b>

The change in assets with an effect on cash relates on the one hand to the exercising of the second tranche of a forward transaction for the complete acquisition of a joint venture in Germany and on the other hand to the remeasurement through profit and loss of the remaining third tranche.

The changes recognized with an effect on income in equity and liabilities largely relate to the unwinding of the discount on a purchase price liability from a put option in South Africa and the aforementioned remeasurement of the final tranche of the forward transaction. Changes with an effect on cash and cash equivalents include payments of contingent considerations.

The net gains and losses on the financial instruments recognized in the income statement, by measurement category, are as follows:

#### Net gains and losses by measurement category in accordance with IFRS 9 71

IN € MILLION	2019	2018
Debt instruments at amortized cost	-6.7	-3.1
Debt instruments at fair value through other comprehensive income	-0.1	-0.2
Financial assets/liabilities at fair value through profit or loss	1.6	-2.2
Equity instruments at fair value through other comprehensive income	-3.7	-0.6
Financial liabilities at amortized cost	-6.6	-2.7

The net gains and losses are mainly attributable to effects from impairment losses, currency hedging and currency translation as well as measurement results from other derivatives.

Dividend income from other participations totals € 0.6 million (prior year: € 1.9 million).

The development of the valuation allowances on financial assets as well as the impairment losses recognized in the income statement in the fiscal year are as follows:

#### Development of valuation allowances on financial assets 72

IN € MILLION	Other financial assets	Trade receivables	Other receivables and other current assets	Total
<b>Valuation allowances as of December 31, 2017</b>	<b>11.8</b>	<b>22.0</b>	<b>3.1</b>	<b>36.9</b>
Effect from first-time application of IFRS 9	0.0	-0.2	0.0	-0.2
<b>Valuation allowances of January 1, 2018, adjusted</b>	<b>11.8</b>	<b>21.8</b>	<b>3.1</b>	<b>36.7</b>
Currency translation differences	0.1	0.1	0.0	0.2
Change in scope of consolidation	0.0	-0.1	0.0	-0.1
Additions	1.3	7.4	0.0	8.7
Utilization	0.0	-5.2	0.0	-5.2
Reversals	0.0	-3.9	0.0	-3.9
Reclassifications to "held for sale"	-0.3	-0.4	-1.1	-1.8
<b>Valuation allowances as of December 31, 2018/January 1, 2019</b>	<b>12.9</b>	<b>19.7</b>	<b>2.0</b>	<b>34.6</b>
Currency translation differences	0.1	0.0	0.0	0.1
Change in scope of consolidation	0.0	-0.3	0.0	-0.3
Additions	1.4	9.5	0.4	11.3
Utilization	0.0	-6.7	0.0	-6.7
Reversals	-0.5	-2.0	0.0	-2.5
Reclassifications to "held for sale"	0.0	-0.3	0.0	-0.3
<b>Valuation allowances as of December 31, 2019</b>	<b>13.9</b>	<b>19.9</b>	<b>2.4</b>	<b>36.2</b>
<b>Impairment losses 2019</b>	<b>1.4</b>	<b>12.1</b>	<b>0.3</b>	<b>13.8</b>
Impairment losses 2018	1.3	6.5	0.0	7.8

## 31 / FINANCIAL RISKS

The TÜV SÜD Group faces financial risks in the form of credit risks, liquidity risks and market risks. The principles of risk management are defined by TÜV SÜD's internal finance policy as well as numerous binding strategies and guidelines and are discussed in more detail in the management report.

**Credit risks** (default risks) exist with regard to the operating business as well as to financial assets and derivative financial instruments. Depending on the nature and extent of the respective transaction, risk-mitigating measures must be taken for all transactions relating to the operating business. These include obtaining collateral, credit ratings or track records of prior business relations, particularly payment behavior. Recognizable risks are taken into account through appropriate valuation allowances on receivables that are based on objective indications in individual cases, or the maturity profile and actual default history.

The maximum credit risk for trade receivables, contract assets and loans is their carrying amount as of December 31, 2019.

The maximum credit risk of financial assets and derivative financial instruments corresponds to their fair value as of December 31, 2019.

The risk of default on securities is minimized by a high degree of diversity in the investment strategy. Only securities with an investment grade credit rating are purchased. The TÜV SÜD Group did not record any default on securities in the reporting year. Derivative financial instruments are only concluded with partners that have an investment grade rating and where a breach of contractual obligations is thus not expected.

According to internal trading policies, derivative financial transactions may only be concluded in close consultation with the corporate finance department and in connection with an underlying transaction. To limit risks, subsidiaries in Germany and other countries are prohibited from purchasing securities without approval from the corporate finance department.

In order to manage **liquidity risks**, the TÜV SÜD Group always has up-to-date liquidity planning and sufficient liquidity reserves in the form of cash and credit lines. Bank balances are held solely at banks with excellent credit ratings. In addition,

maximum investment limits are set for investment funds at various banks based on their credit rating in order to avoid cluster risks. Risks relating to current securities are also minimized by widely diversifying issuers. In addition to cash and securities, the liquidity reserve comprises a syndicated credit line for € 200 million. The syndicated credit line had an original term until December 2019 but was extended until December 2021 by exercising the corresponding option in 2018. Without taking lease liabilities into account, as of the reporting date payments due within one year of € 173.2 million (prior year: € 143.1 million) and payments due in more than one year of € 2.5 million (prior year: € 8.5 million) are covered by cash and cash equivalents of € 203.9 million (prior year: € 211.6 million) as well as undrawn credit lines of € 212.9 million (prior year: € 212.4 million).

The main **market risks** resulting from financial instruments are currency and interest rate risks.

The scope for action with regard to currency management is defined by TÜV SÜD's internal policies. **Currency risks** in connection with the operating business are hedged using derivative financial instruments. Forward exchange transactions and cross-currency swaps are used to hedge intra-group loans in foreign currencies.

With regard to trade receivables and payables, a 10% increase or decrease in the value of the euro against all other currencies as of December 31, 2019 would only have an immaterial effect on consolidated net income for the year. In the event of a 10% decrease in value of the euro, the market value of forward exchange transactions would fall by € 13.3 million (prior year: € 3.9 million). The market value of cross-currency swaps would increase by € 0.3 million (prior year: € 0.3 million) accordingly. In the event of a 10% increase in value of the euro against all other currencies, the market value of forward exchange transactions would rise by € 10.9 million (prior year: € 3.2 million). The market value of cross-currency swaps would decrease by € 0.2 million (prior year: € 0.3 million) accordingly.

**Interest rate risks** may arise for investments in fixed-interest securities. A 1% increase or decrease in interest rates would result only in insignificant changes in the market value. Financial debt may also be exposed to an interest rate risk. Derivative financial instruments are used on a case-by-case basis to hedge against this interest rate risk.

## 32 / NOTES TO THE STATEMENT OF CASH FLOWS

The cash and cash equivalents presented in the statement of cash flows contain all highly liquid items shown in the statement of financial position, i.e., cash in hand, checks and bank balances as well as current securities that are available within three months.

Cash flow from operating activities increased significantly on account of the first-time recognition of lease liabilities pursuant to IFRS 16, while cash flow from financing activities decreased correspondingly. In the prior year, all lease payments were recognized under cash flow from operating activities. From 2019, this now only includes the interest component of the lease payment along with expenses for short-term leases and leases of low-value assets. Payments to repay lease liabilities are shown under cash flow from financing activities.

The contribution to pension plans consists of contributions equivalent to the pension payments made by the trustors to TÜV SÜD Pension Trust e.V. of € 61.7 million (prior year: € 59.6 million). Together with one-off additions with an effect on cash of € 30.0 million (prior year: € 30.0 million) to TÜV SÜD Pension Trust e.V. and € 20.5 million (prior year: € 0.0 million) to TÜV Hessen Trust e.V. as well as further additions to other plan assets of € 4.5 million (prior year: € 5.7 million), these payments are recognized as part of the cash flow from investing activities.

## 33 / SEGMENT REPORTING

Based on the organizational structure and existing reporting structures, TÜV SÜD has the three reportable segments INDUSTRY, MOBILITY and CERTIFICATION, as defined by the Board of Management. These cover the technical services in the TIC (testing, inspection, certification) market. As the highest management level, the entire Board of Management regularly receives comprehensive information in order to assess the profitability of the segments described below and make decisions regarding the allocation of resources.

→ **INDUSTRY** The Industry Service and Real Estate & Infrastructure Divisions support customers in operating industrial plants, infrastructure facilities, refineries, power plants and buildings safely and economically, as well as ensuring the functionality and safety of rail vehicles, signaling technology and rail infrastructures.

The INDUSTRY Segment collects revenue over time for services already rendered. These are invoiced pursuant to standard terms and conditions or individual contractual conditions. Any associated certification and license fees are invoiced annually, regardless of the services rendered, and collected over the term on a straight-line basis.

→ **MOBILITY** This segment comprises all services for automobiles, which are offered by the Auto Service Division. These include services for homologation, used car valuations, management of vehicle fleets and product and process enhancement services for the automotive industry. For retail customers, roadworthiness tests and exhaust gas analyses, driver's license tests as well as driving suitability tests for road users and support with regaining and retaining their drivers' licenses in particular are offered.

In the MOBILITY Segment, revenue in the core business of roadworthiness tests and exhaust gas analyses as well as driver's license tests is recognized at a point in time; in the private customer business advance payments are regularly requested. In the fleet business, services rendered are invoiced monthly. All other services in this segment are invoiced pursuant to individual contractual conditions or standard terms and conditions. Revenue from these services is generally recognized over time.

→ **CERTIFICATION** The activities of the Product Service and Business Assurance Divisions are bundled in this segment. The Product Service Division offers services for the testing, inspection and certification of consumer goods as well as industrial and medical products. The Business Assurance Division comprises the three business units Management Systems, Academy and Cyber Security Services. All three business units support customers in optimizing their business processes, systems and resources.

In the CERTIFICATION Segment, revenue from services is collected over time. These are invoiced pursuant to standard terms and conditions or individual contractual conditions. Any associated certification and license fees are invoiced annually, regardless of the services rendered, and collected over the term on a straight-line basis.



Holding activities are reported under **OTHER**. OTHER also includes individual assets of subsidiaries that cannot be allocated to actual business operations of the operational segments.

TÜV SÜD operates in the following **geographic** segments:

→ **EUROPE** comprises the home market of Germany as well as Western Europe and Central & Eastern Europe.

→ **AMERICAS** covers both American continents, from Canada to the southern tip of South America.

→ **ASIA** combines all the countries of the Asia/Pacific and South Asian area as well as the Middle East & Africa Region.

TÜV SÜD realizes revenue from service contracts with customers at a point in time and over time. External revenue is broken down by segment and region. Consolidations of business relationships between the segments are recorded in the reconciliation column.

**Segment information from January 1 to December 31, 2019 and as of December 31, 2019**

≡ 73

IN € MILLION	INDUSTRY	MOBILITY	CERTIFICATION	OTHER	Reconciliation	Group
External revenue	952.1	829.5	807.4	2.7	-1.6	<b>2,590.1</b>
thereof EUROPE	761.6	819.2	409.0	0.2	-1.6	<b>1,988.4</b>
thereof AMERICAS	93.4	0.1	92.4	0.0	0.0	<b>185.9</b>
thereof ASIA	97.1	10.2	306.0	2.5	0.0	<b>415.8</b>
Intersegment revenue	8.7	1.1	9.7	30.9	-50.4	<b>0.0</b>
Total revenue	960.8	830.6	817.1	33.6	-52.0	<b>2,590.1</b>
Amortization, depreciation and impairment losses	-33.6	-35.3	-38.4	-42.9	0.0	<b>-150.2</b>
Income from investments accounted for using the equity method	0.0	20.0	-2.7	0.0	0.0	<b>17.3</b>
EBIT	86.9	71.1	65.8	-21.2	0.2	<b>202.8</b>
Capital expenditures	16.6	25.4	41.4	42.6	0.0	<b>126.0</b>
Segment assets as of December 31, 2019	543.9	442.6	452.0	383.7	-9.0	<b>1,813.2</b>

Total revenue in the home market of Germany amounts to € 1,649.4 million (prior year: € 1,588.9 million) and relates with € 573.0 million (prior year: € 548.5 million) to the INDUSTRY Segment, with € 751.2 million (prior year: € 735.9 million) to the MOBILITY Segment and with € 326.6 million (prior year: € 306.2 million) to the CERTIFICATION Segment.

## Segment information from January 1 to December 31, 2018 and as of December 31, 2018

≡ 74

IN € MILLION	INDUSTRY	MOBILITY	CERTIFICATION	OTHER	Reconciliation	Group
External revenue	940.6	808.6	748.4	2.6	– 1.7	<b>2,498.5</b>
thereof EUROPE	739.1	800.8	378.0	0.1	– 1.7	<b>1,916.3</b>
thereof AMERICAS	109.7	0.0	88.3	0.0	0.0	<b>198.0</b>
thereof ASIA	91.8	7.8	282.1	2.5	0.0	<b>384.2</b>
Intersegment revenue	10.0	0.9	8.7	25.4	– 45.0	<b>0.0</b>
Total revenue	950.6	809.5	757.1	28.0	– 46.7	<b>2,498.5</b>
Amortization, depreciation and impairment losses	– 17.8	– 18.8	– 21.3	– 23.7	0.0	<b>– 81.6</b>
Income from investments accounted for using the equity method	0.0	9.4	– 0.9	0.0	0.0	<b>8.5</b>
EBIT	64.6	70.4	74.7	– 104.5	0.3	<b>105.5</b>
Capital expenditures	18.2	31.7	34.6	16.1	0.0	<b>100.6</b>
Segment assets as of December 31, 2018	502.6	372.6	372.2	260.0	– 18.7	<b>1,488.7</b>

The same accounting policies are used as for the consolidated financial statements.

Segment assets in Germany come to € 1,046.1 million (prior year: € 844.3 million).

Transfer prices for revenue with other segments are determined using a market-based approach (at arm's length).

Segment performance is evaluated based on EBIT.

## Reconciliation of EBIT to income before taxes

≡ 75

IN € MILLION	2019	2018
<b>EBIT according to segment reporting</b>	<b>202.8</b>	<b>105.5</b>
Interest income	2.4	2.5
Interest expenses	– 23.2	– 12.8
Other financial result	2.4	– 0.6
<b>Income before taxes according to consolidated income statement</b>	<b>184.4</b>	<b>94.6</b>

## Reconciliation of segment assets to group assets

≡ 77

IN € MILLION	Dec. 31, 2019	Dec. 31, 2018
<b>Segment assets</b>	<b>1,813.2</b>	<b>1,488.7</b>
Interest-bearing financial assets	105.1	78.3
Deferred tax assets	284.3	245.7
Cash and cash equivalents	203.3	209.6
Other interest-bearing current assets	34.3	49.5
<b>Group assets</b>	<b>2,440.2</b>	<b>2,071.8</b>

Assets are allocated according to their geographic location.

## Segment assets based on geographic segments

≡ 76

IN € MILLION	Dec. 31, 2019	Dec. 31, 2018
EUROPE	1,341.8	1,105.6
AMERICAS	188.9	177.7
ASIA	312.5	228.5
Reconciliation	– 30.0	– 23.1
<b>Total segment assets</b>	<b>1,813.2</b>	<b>1,488.7</b>

## 34 / RELATED PARTIES

### Related companies

The ultimate parent companies of the TÜV SÜD Group are TÜV SÜD e.V., Munich, and TÜV SÜD Stiftung, Munich ("TÜV SÜD Foundation"). Both TÜV SÜD e.V. and the TÜV SÜD Foundation have transferred their shares in TÜV SÜD AG to the independent shareholder committee, TÜV SÜD Gesellschafterausschuss GbR. Internally, TÜV SÜD e.V. and the TÜV SÜD Foundation hold 74.9% and 25.1% stakes in the assets of TÜV SÜD Gesellschafterausschuss GbR.

Within the framework of an agency contract, the activities under the accreditation to operate the road vehicle technical inspectorate are carried out by the group company TÜV SÜD Auto Service GmbH, Stuttgart, for TÜV SÜD e.V., as principal and recognized contractor. Until February 28, 2018, this also applied for the activity as the official inspection body in Baden-Württemberg. Following the approval of the respective authorities, TÜV SÜD e.V. transferred this business segment in full and irrevocably to TÜV SÜD Auto Service GmbH as of March 1, 2018 for € 17.1 million. This means that TÜV SÜD Auto Service GmbH replaces TÜV SÜD e.V., which was the agent up until this point in time, as the inspection body pursuant to exhibit VIIIb StVZO ["Straßenverkehrs-Zulassungs-Ordnung": German Road Traffic Licensing Regulations] in Baden-Württemberg and is officially recognized as such.

Business from the activities under the accreditation to operate the road vehicle technical inspectorate is conducted on behalf of, at the instruction of and in the name of TÜV SÜD e.V.

All transactions and business processes are carried out in the TÜV SÜD Group. TÜV SÜD Auto Service GmbH maintains personnel and material in the scope necessary for the activities and operation. From the cost center accounting, the revenue allocable to TÜV SÜD e.V. is calculated and transferred. 98.5% of revenue from the business officially mandated is invoiced by the operating entity as a lump-sum payment for agency services. In the fiscal year 2019, a total volume of € 108.1 million (prior year: € 112.6 million) was charged to TÜV SÜD e.V. TÜV SÜD e.V. recorded revenue of € 109.8 million (prior year: € 114.3 million) from this source.

As of the reporting date, there are cash pool receivables of € 6.9 million from TÜV SÜD e.V. (prior year: cash pool liabilities of € 1.7 million). Furthermore, in the prior year cash pool liabilities of € 0.2 million were recognized to TÜV SÜD Föderation GmbH. Effective December 31, 2019, TÜV SÜD AG acquired TÜV SÜD Föderation GmbH from TÜV SÜD e.V. This transaction resulted in a purchase price liability of € 7.1 million to TÜV SÜD e.V., which is included under other financial liabilities as of December 31, 2019.

In the fiscal years 2019 and 2018, the TÜV SÜD Group had business relationships with non-consolidated subsidiaries, associated companies and joint ventures that qualify as related parties. In the course of ordinary operations, all service transactions with these entities were carried out at arm's length conditions. In 2019, transactions were carried out with material related parties that led to the following items in the consolidated financial statements:

### Items of the statement of financial position from transactions with non-consolidated subsidiaries, associated companies and joint ventures

≡ 78

IN € MILLION	Non-consolidated subsidiaries		Associated companies		Joint ventures	
	Dec. 31, 2019	Dec. 31, 2018	Dec. 31, 2019	Dec. 31, 2018	Dec. 31, 2019	Dec. 31, 2018
Loans	0.2	0.2	0.0	0.0	8.1	3.0
Receivables	1.3	1.9	0.0	0.0	1.5	0.4
Financial debt	0.3	0.7	0.0	0.0	0.0	0.0
Liabilities	4.7	4.5	0.0	0.0	0.8	0.1

Receivables from non-consolidated subsidiaries include valuation allowances amounting to € 2.4 million (prior year: € 2.0 million).

The business relationships with the Turkish joint ventures are based primarily on a license agreement between TÜVTÜRK Kuzey and TÜVTÜRK Güney (both licensors) and TÜV SÜD Bursa (licensee). In 2019, dividend distributions of the Turkish joint ventures amounted to € 12.7 million (prior year: € 4.5 million). Furthermore, there was a distribution of € 0.1 million (prior year: € 1.0 million) of the Spanish joint venture ITV Levante.

Dividend distributions of € 0.8 million (prior year: € 1.1 million) were received from associated companies.

TÜV SÜD AG issued a letter of comfort for one related company and one joint venture. It is assumed that the companies can pay their current obligations themselves. Claims are therefore not expected.

TÜV SÜD ATISAE issued letters of comfort for two subsidiaries, ATISAE Trauxia ITV, S.L., Madrid, Spain, and Servicios Técnicos y Consultoria ITV, S.L., Madrid, Spain. For the expected utilization, an unchanged provision of € 0.2 million has been recognized in the consolidated financial statements.

#### Remuneration of active members of the Board of Management and Supervisory Board

The total remuneration of active members of the Board of Management amounted to € 3.4 million in the fiscal year 2019 (prior year: € 3.4 million). This includes variable, EVA-based salary components of € 1.3 million in total (prior year: € 1.4 million), which have not yet been paid out as of December 31. The additional service cost incurred for pension obligations amounted to € 0.3 million (prior year: € 0.3 million). The present value of the defined benefit obligation calculated in accordance with IFRSs amounted to € 5.6 million as of the reporting date (prior year: € 5.3 million).

The active members of the Supervisory Board received total remuneration of € 1.2 million in the fiscal year 2019 (prior year: € 1.1 million).

#### Remuneration of former members of the Board of Management and Supervisory Board

The total remuneration of former members of the Board of Management and their surviving dependents including pension payments and other payments (advisory services) amounted to € 1.3 million (prior year: € 1.2 million). Defined benefit obligations amounting to € 18.6 million (prior year: € 17.8 million) exist for former members of the Board of Management and their surviving dependents.

## 35 / PROPOSAL FOR THE APPROPRIATION OF PROFIT

The Board of Management and Supervisory Board will propose to the annual general meeting to distribute € 2.1 million from the retained earnings under German GAAP of TÜV SÜD AG totaling € 368.1 million, equivalent to €0.08 per share. The remaining amount of € 366.0 million is to be carried forward to new account.

## 36 / AUDITOR'S FEES

### Fees of the auditor KPMG AG Wirtschaftsprüfungsgesellschaft ≡ 79

IN € MILLION	2019	2018
Audit of the financial statements	1.6	0.9
Tax advisory services	0.5	0.4
Other services	0.2	0.2
	<b>2.3</b>	<b>1.5</b>

## 37 / EVENTS AFTER THE REPORTING DATE

Since January 2020 there has been a rapid increase in the number of people infected with the new coronavirus SARS-CoV-2 around the world. It is not yet possible to predict how this will develop and consequently it is not possible to estimate the financial impact for TÜV SÜD.

## 38 / CONSOLIDATED ENTITIES

### Consolidated entities

≡ 80

NAME AND REGISTERED OFFICE OF THE ENTITY	Share in capital in %
FULLY CONSOLIDATED ENTITIES – GERMANY	
ARMAT GmbH & Co. KG, Pullach i. Isartal <sup>1</sup>	100.00
ARMAT Südwest GmbH & Co. KG, Pullach i. Isartal <sup>1</sup>	100.00
MI-Fonds F60, Munich	100.00
PIMA-MPU GmbH, Munich <sup>1</sup>	100.00
SIGNON Deutschland GmbH, Berlin	100.00
TÜV Hanse GmbH TÜV SÜD Gruppe, Hamburg	90.00
TÜV Hessen Immobilien Service GmbH & Co. KG, Gräfelfing	55.00
TÜV SÜD Advimo GmbH, Munich	100.00
TÜV SÜD Akademie GmbH, Munich <sup>1</sup>	100.00
TÜV SÜD Auto Partner GmbH, Hamburg <sup>1</sup>	100.00
TÜV SÜD Auto Plus GmbH, Leinfelden-Echterdingen <sup>1</sup>	100.00
TÜV SÜD Auto Service GmbH, Stuttgart <sup>1</sup>	100.00
TÜV SÜD Battery Testing GmbH, Garching	70.00
TÜV SÜD Business Services GmbH, Munich <sup>1</sup>	100.00
TÜV SÜD Car Registration & Services GmbH, Munich	50.00
TÜV SÜD Chemie Service GmbH, Leverkusen <sup>1</sup>	100.00
TÜV SÜD Digital Service GmbH, Munich <sup>1</sup>	100.00
TÜV SÜD ELAB GmbH, Siegen	100.00
TÜV SÜD Energietechnik GmbH Baden-Württemberg, Filderstadt <sup>1</sup>	100.00
TÜV SÜD Föderation GmbH, Munich	F 100.00
TÜV SÜD Food Safety Institute GmbH, Neu-Isenburg	100.00
TÜV SÜD ImmoWert GmbH, Munich <sup>1</sup>	100.00
TÜV SÜD Industrie Service GmbH, Munich <sup>1</sup>	100.00
TÜV SÜD Life Service GmbH, Munich <sup>1</sup>	100.00
TÜV SÜD Management Service GmbH, Munich <sup>1</sup>	100.00
TÜV SÜD Pluspunkt GmbH, Munich <sup>1</sup>	100.00
TÜV SÜD Product Service GmbH, Munich	100.00
TÜV SÜD Rail GmbH, Munich <sup>1</sup>	100.00
TÜV SÜD Sec-IT GmbH, Munich <sup>1</sup>	100.00
TÜV Technische Überwachung Hessen GmbH, Darmstadt	55.00

<sup>1</sup> \_ The domestic subsidiary meets the requirements of Section 264 (3) HGB or Section 264b HGB, and takes advantage of the corresponding exemption regulations.  
F = First-time consolidation

NAME AND REGISTERED OFFICE OF THE ENTITY	Share in capital in %
FULLY CONSOLIDATED ENTITIES – OTHER COUNTRIES	
ARISE Boiler Inspection and Insurance Company Risk Retention Group, Louisville, USA	100.00
ARISE Inc., Wilmington, USA	100.00
ATISAE de Castilla y León, S.A.U., Miranda de Ebro, Spain	100.00
Bytest S.r.l., Volpiano, Italy	100.00
Dunbar & Boardman Partnership Ltd., Fareham Hants, UK	100.00
ÉMI-TÜV SÜD Minőségügyi és Biztonságtechnikai Korlátolt Felelősségű Társaság, Szentendre, Hungary	62.13
Fleet Logistics Italia S.r.l., Milan, Italy	100.00
Fleet Logistics UK Ltd., Birmingham, UK	100.00
Global Risk Consultants (Australia) Pty Ltd, Melbourne, Australia	100.00
Global Risk Consultants (Guangzhou) Co. Ltd., Guangzhou, China	100.00
Global Risk Consultants Corp., Wilmington, USA	100.00
Global Risk Consultants Ltd., West Byfleet, UK	100.00
Global Risk Consultores (Brasil) Ltda., São Paulo, Brazil	100.00
Magyar TÜV SÜD Műszaki Szakértői Korlátolt Felelősségű Társaság, Szentendre, Hungary	100.00
National Association of Boiler and Pressure Vessel Owners and Operators, Inc., Louisville, USA	100.00
Nuclear Technologies plc., Fareham Hants, UK	100.00
P.H. S.r.l., Tavarnelle Val di Pesa, Italy	100.00
PetroChem Inspection Services Inc., Pasadena, USA	100.00
PT. TUV SUD Indonesia, Jakarta Pusat, Indonesia	99.82
Superfresh Ltd., Fareham Hants, UK	100.00
TÜV Italia S.r.l., Milan, Italy	100.00
TUV SUD (Malaysia) Sdn. Bhd., Kuala Lumpur, Malaysia	100.00
TUV SUD (Thailand) Ltd., Bangkok, Thailand	100.00
TÜV SÜD (UK) Ltd., Fareham Hants, UK	100.00
TÜV SÜD America de México, S.A. de C.V., San Pedro Garza Garcia, Mexico	100.00
TÜV SÜD America Inc., Danvers, USA	100.00
TÜV SÜD AMT, S.A.U., Madrid, Spain	F 100.00
TUV SUD Asia Ltd., Hong Kong, China	100.00
TUV SUD Asia Pacific Pte. Ltd., Singapore	100.00
TÜV SÜD ATISAE, S.A.U., Madrid, Spain	100.00
TUV SUD BABT Unltd., Fareham Hants, UK	100.00
TUV SUD Bangladesh (Pvt.) Ltd., Dhaka, Bangladesh	100.00
TÜV SÜD Benelux B.V.B.A., Boortmeerbeek, Belgium	100.00
TÜV SÜD Benelux VZW, Boortmeerbeek, Belgium	100.00
TÜV SÜD BRASIL ENGENHARIA E CONSULTORIA LTDA., São Paulo, Brazil	100.00
TÜV SÜD Bursa Tasit Muayene Istasyonlari Isletim A.S., Kestel-Bursa, Turkey	100.00
TÜV SÜD Canada Inc., Newmarket, Canada	100.00
TÜV SÜD Central Eastern Europe s.r.o., Prague, Czech Republic	100.00
TUV SUD Certification and Testing (China) Co., Ltd., Wuxi, China	51.00
TUV SUD China Holding Ltd., Hong Kong, China	100.00
TÜV SÜD Czech s.r.o., Prague, Czech Republic	100.00
TÜV SÜD Danmark ApS, Hellerup, Denmark	100.00

NAME AND REGISTERED OFFICE OF THE ENTITY	Share in capital in %
TÜV SÜD France S.A.S., Écully, France	100.00
TUV SUD Hong Kong Ltd., Hong Kong, China	100.00
TÜV SÜD Iberia, S.A.U., Barcelona, Spain	100.00
TUV SUD Inspection Authority (Pty) Ltd., Cape Town, South Africa	48.00
TÜV SÜD Japan Ltd., Tokyo, Japan	100.00
TUV SUD Korea Ltd., Seoul, South Korea	100.00
TÜV SÜD Landesgesellschaft Österreich GmbH, Jenbach, Austria	100.00
TUV SUD Ltd., Glasgow, UK	100.00
TUV SUD Middle East Co. LLC, Muscat, Oman	51.00
TUV SUD Middle East LLC (Qatar), Doha, Qatar	51.00
TUV SUD Middle East LLC, Abu Dhabi, United Arab Emirates	51.00
TÜV SÜD Nederland B.V., Ede, Netherlands	100.00
TÜV SÜD New Energy Vehicle Testing (Jiangsu) Co., Ltd., Changzhou, China	52.00
TÜV SÜD Polska Sp. z o.o., Warsaw, Poland	100.00
TÜV SÜD Products Testing (Shanghai) Co., Ltd., Shanghai, China	100.00
TÜV SÜD PSB Philippines Inc., Pasig City, Philippines	99.99
TUV SUD PSB Pte. Ltd., Singapore	100.00
TÜV SÜD Romania S.R.L., Bucharest, Romania	100.00
TÜV SÜD Sava d.o.o., Ljubljana, Slovenia	100.00
TÜV SÜD Schweiz AG, Zurich, Switzerland	100.00
TUV SUD Services (UK) Ltd., Fareham Hants, UK	100.00
TÜV SÜD SFDK Laboratório de Análise de Produtos EIRELI, São Paulo, Brazil	100.00
TÜV SÜD Slovakia s.r.o., Bratislava, Slovakia	100.00
TUV SUD South Africa (Pty) Ltd., Cape Town, South Africa	48.00
TUV SUD South Asia Pvt. Ltd., Mumbai, India	100.00
TÜV SÜD Sverige AB, Malmö, Sweden	100.00
TÜV SÜD Teknik Güvenlik ve Kalite Denetim Ticaret Ltd. Sirketi (TGK), Istanbul, Turkey	100.00
TUV SUD Vietnam Co. Ltd., Ho-Chi-Minh-City, Vietnam	100.00
TÜVSÜD Portugal, unipessoal Lda., Lisbon, Portugal	100.00



NAME AND REGISTERED OFFICE OF THE ENTITY	Share in capital in %
CONSOLIDATED ASSOCIATED COMPANIES – OTHER COUNTRIES	
SECTA Société Européenne de Contrôle Technique Automobile S.A., Courbevoie, France	38.22
CONSOLIDATED JOINT VENTURES – GERMANY	
FleetCompany GmbH, Oberhaching	C 40.00
Uniscon universal identity control GmbH, Munich	76.00
CONSOLIDATED JOINT VENTURES – OTHER COUNTRIES	
ITV de Levante, S.A., Valencia, Spain	50.00
TÜV SÜD DOĞUS Ekspertiz ve Danışmanlık Hizmetleri Ltd. Sti., İstanbul, Turkey	50.05
TÜVTURK Güney Tasit Muayene İstasyonları Yapım ve İşletim A. S., İstanbul, Turkey	33.33
TÜVTURK Kuzey Tasit Muayene İstasyonları Yapım ve İşletim A. S., İstanbul, Turkey	33.33

C = Change in consolidation method

Munich, March 10, 2020

TÜV SÜD AG

The Board of Management

Prof. Dr.-Ing. Axel Stepken

Ishan Palit

Dr. Matthias J. Rapp



# INDEPENDENT AUDITOR'S REPORT

To TÜV SÜD AG, Munich

## Report on the Audit of the Consolidated Financial Statements and of the Combined Management Report

### Opinions

We have audited the consolidated financial statements of TÜV SÜD AG, Munich, and its subsidiaries (the Group), which comprise the consolidated statement of financial position as of December 31, 2019, and the consolidated income statement, the consolidated statement of comprehensive income, the consolidated statement of changes in equity and the consolidated statement of cash flows for the financial year from January 1, to December 31, 2019, as well as notes to the consolidated financial statements, including a summary of significant accounting policies. In addition, we have audited the combined management report (hereinafter referred to as 'group management report') of the TÜV SÜD Group and TÜV SÜD AG for the financial year from January 1, to December 31, 2019. In accordance with German legal requirements, we have not audited the content of the components of the group management report described in the "Other information" section of our auditor's report.

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 Section 315e (1) HGB [Handelsgesetzbuch: German Commercial Code] and, in compliance with these requirements, give a true and fair view of the assets, liabilities, and financial position of the Group as of December 31, 2019, and of its financial performance for the financial year from January 1, to December 31, 2019, and
- the accompanying group management report as a whole provides an appropriate view of the Group's position. In all material respects, this group management report is consistent with the consolidated financial statements, complies with German legal requirements and appropriately presents the opportunities and risks of future development. Our opinion on the group management report does not extend to the content of the above-mentioned components of the group management report described in the "Other information" section.

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

### Basis for the Opinions

We conducted our audit of the consolidated financial statements and of the group management report in accordance with Section 317 HGB and the German Generally Accepted Standards for Financial Statement Audits promulgated by the Institut der Wirtschaftsprüfer (IDW) [Institute of Public Auditors in Germany]. 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 Group Management Report" section of our auditor's report. We are independent of the group entities in accordance with the requirements of German commercial and professional law, and we have fulfilled our other German professional responsibilities in accordance with these requirements. We believe that the evidence we have obtained is sufficient and appropriate to provide a basis for our opinions on the consolidated financial statements and on the group management report.

### Information on an Issue of Particular Concern – Dam Collapse in Brazil

Please see management's comments in note 5 sub-item 'Assumptions, estimation uncertainties and judgments' in conjunction with note 29 of the notes to the consolidated financial statements and in the sections 'Business development' and 'Compliance risks and other risks' in the group management report, which describe the effects of a dam collapse in Brazil in January 2019 – the stability of the dam had been certified by a subsidiary of TÜV SÜD AG in summer 2018 – and the provisions determined for this matter. Management notes considerable estimation uncertainty regarding assumptions on the probability of occurrence, the time of payment and the amount of the risk, with the result that the outcome of the pending and imminent legal proceedings could have a significant influence on the Group's assets, liabilities, financial position and financial performance for financial year 2020 and future financial years. Our audit opinions on the consolidated financial statements and management report have not been modified in this regard.

### **Material Uncertainty about Two Subsidiaries' Ability to Continue as a Going Concern**

Please see the disclosures in note 29 of the notes to the consolidated financial statements and the information in the sections 'Compliance risks and other risks' and 'Overall evaluation of the Group's risk situation' in the group management report for information on potential claims against TÜV SÜD concerning the dam collapse in Brazil. In those sections, management explains that the continuation as a going concern of the Brazilian subsidiary TÜV SÜD Brasil Engenharia e Consultoria Ltda., São Paulo, Brazil, and its direct shareholder TÜV SÜD SFDK Laboratório de Análise de Produtos EIRELI, São Paulo, Brazil, is at risk if these companies are held liable for the damages resulting from the dam collapse in Brazil and if no further financial support is provided by the shareholders. These events and circumstances indicate considerable uncertainty that could cast significant doubt on the two companies' ability to continue their business activities and which represent a risk that could affect the respective company's ability to continue as a going concern within the meaning of Section 322 (2) sentence 3 HGB. Our opinions have not been modified with respect to this matter.

### **Other Information**

Management and the Supervisory Board are responsible for the other information. The other information comprises:

- the corporate governance statement (information on female representation pursuant to Section 289f (4) HGB of TÜV SÜD AG),
- the disclosures in the management report not typical of management reports and marked as unaudited.

The other information also comprises the remaining components of the annual report.

The other information does not comprise the consolidated financial statements, the disclosures in the group management report included in our audit or our related auditor's report.

Our opinions on the consolidated financial statements and on the group 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, in so doing, to consider whether the other information

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

### **Responsibilities of Management and the Supervisory Board for the Consolidated Financial Statements and the Group Management Report**

Management is 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 Section 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, management is 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 or error.

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

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

#### **Auditor's Responsibilities for the Audit of the Consolidated Financial Statements and of 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 group management report as a whole provides an appropriate view of the Group's position and, in all material respects, is consistent with the consolidated financial statements and the knowledge obtained in the audit, complies with 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 group management report.

Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Section 317 HGB and in compliance with the 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 group management report.

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

- Identify and assess the risks of material misstatement of the consolidated financial statements and of the group management report, 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 opinions. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal 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 group management report in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of these systems.
- Evaluate the appropriateness of accounting policies used by management and the reasonableness of estimates made by management and related disclosures.
- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in the auditor's report to the related disclosures in the consolidated financial statements and in the group management report or, if such disclosures are inadequate, to modify our respective 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 Section 315e (1) HGB.
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express opinions on the consolidated financial statements and on the group management report. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our opinions.
- Evaluate the consistency of the group management report with the consolidated financial statements, its conformity with [German] law, and the view of the Group's position it provides.
- Perform audit procedures on the prospective information presented by management in the group management report. On the basis of sufficient appropriate audit evidence we evaluate, in particular, the significant assumptions used by management 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.

Munich, March 10, 2020

KPMG AG  
 Wirtschaftsprüfungsgesellschaft

Andrejewski  
 Wirtschaftsprüfer  
 [German Public Auditor]

Hachmann  
 Wirtschaftsprüfer  
 [German Public Auditor]

# GLOSSARY

<b>Additive manufacturing</b>	Process to construct a structural element by depositing material layer by layer based on digital 3D construction data (3D printing)
<b>Advanced analytics</b>	Autonomous or semi-autonomous examination of data or content using processes such as data mining, big data analytics or location intelligence to predict future events and behaviors
<b>AHV</b>	“Alters- und Hinterbliebenenversicherung” (Engl.: old-age and survivors’ insurance)
<b>AI</b>	Artificial intelligence Branch of information technology that deals with the automation of intelligent behavior and machine learning. Attempt to recreate human perception and behavior in machines.
<b>ALM</b>	Asset liability management
<b>BetrSichV</b>	“Betriebssicherheitsverordnung” (Engl.: German ordinance on industrial health and safety)
<b>BIM</b>	Building Information Modeling Modeling a digital building twin
<b>Brexit</b>	Exit of the United Kingdom from the European Union
<b>Cash conversion rate</b>	Cash conversion rate Free cash flow in relation to consolidated net income
<b>CEO</b>	Chief Executive Officer
<b>CertifHy</b>	EU-wide scheme for the guarantee of origin for green and low-carbon hydrogen
<b>CFO</b>	Chief Financial Officer
<b>CGU</b>	Cash generating unit
<b>Charter of Trust</b>	Initiative to promote cyber security
<b>COO</b>	Chief Operating Officer
<b>Credit spread</b>	Difference between high-risk and risk-free benchmark interest rate with the same term. Defines the risk premium that an investor receives as compensation for the credit risk entered into.
<b>CTA</b>	Contractual trust agreement Pension trust; legal model as part of a company pension scheme to remove pension obligations implemented as direct pledges from the statement of financial position
<b>Cyber security</b>	Computer or information technology security Methods to protect and defend computers, servers, mobile devices, electronic systems, networks and data against malicious attacks, theft, damage or disruptions
<b>DAkkS</b>	“Deutsche Akkreditierungsstelle” (Engl.: German Accreditation Body)
<b>Data analytics</b>	Scientific method to extract and examine large volumes of data from various sources. The aim is to draw conclusions from the data that are related in a certain context.
<b>DBO</b>	Defined benefit obligation

<b>Digital transformation/digitization</b>	Ongoing change process that is affecting society as a whole and companies in particular. The basis is digital technologies that are being developed at ever faster rates and thus pave the way for other new digital technologies.
<b>DIN</b>	Deutsches Institut für Normung (Engl.: German Institute for Standardization)
<b>DSO</b>	Days sales outstanding
<b>Digital Vehicle Scan</b>	Standardized and automated vehicle scan
<b>DYCOT</b>	Dynamic Component Testing Laboratory Hydraulic-powered sledge installation for testing vehicle safety components
<b>Earn-out</b>	Performance-based share of the purchase price in the purchase agreement that is paid at a later date
<b>EBIT</b>	Earnings before interest and taxes Earnings before interest, before other financial result and before income tax, but after income from participations
<b>E-Business</b>	Integrated execution of all automated business processes of a company with the help of information and communication technology
<b>EBT</b>	Earnings before taxes
<b>E-Commerce</b>	Electronic commerce via the internet
<b>E-Learning</b>	Forms of learning using electronic or digital media for the presentation and distribution of learning materials and/or to support individual communication
<b>EMC</b>	Electromagnetic compatibility
<b>ENEC</b>	European Norms Electrical Certification Symbol to label electronic devices in the European Union
<b>EU-GDPR</b>	EU’s General Data Protection Regulation
<b>EVA®</b>	Economic Value Added
<b>EWU</b>	Energiewendeunternehmen (Engl.: company that is already satisfying the requirements of the new energy era)
<b>Free cash flow</b>	Cash flow from operating activities less cash paid for investments in intangible assets, property, plant and equipment and investment property
<b>FTE</b>	Full-time equivalent
<b>GbR</b>	“Gesellschaft bürgerlichen Rechts” (Engl.: partnership under the Civil Code)
<b>GDP</b>	Gross domestic product
<b>Gender Balance</b>	Equal opportunities for men and women
<b>German Corporate Governance Code</b>	Key statutory requirements on managing and supervising German listed companies. Contains recommendations and suggestions for proper and responsible corporate governance based on international and national standards.
<b>Good Clinical Practice</b>	Rules for carrying out clinical studies

<b>Green hydrogen</b>	Certification for hydrogen of green or regenerative origin. The hydrogen has the potential to reduce greenhouse gases by at least 50% compared to fossil fuels or conventional hydrogen.
<b>HAD</b>	Highly-automated driving
<b>HGB</b>	“Handelsgesetzbuch” (Engl.: German Commercial Code)
<b>HR</b>	Human resources
<b>IAMTS</b>	International Alliance for Mobility Testing and Standardization
<b>IAS</b>	International Accounting Standard
<b>IASB</b>	International Accounting Standards Board
<b>IATF</b>	International Automotive Task Force
<b>IDW</b>	“Institut der Wirtschaftsprüfer” (Engl.: Institute of Public Auditors in Germany)
<b>IDW AssS 981</b>	IDW Assurance Standard: Principles for the Proper Performance of Reasonable Assurance Engagements Relating to Risk Management Systems
<b>IEC</b>	International Electrotechnical Commission
<b>IFRS</b>	International Financial Reporting Standard
<b>IFRS IC</b>	International Financial Reporting Standards Interpretations Committee
<b>IW</b>	“Institut für Weltwirtschaft” (Engl.: Institute for the World Economy)
<b>ImmoWertV</b>	Immobilienwertermittlungsverordnung (Engl.: German Ordinance on the Valuation of Property)
<b>Incremental borrowing rate of the lessee</b>	The rate of interest that a lessee would have to pay to borrow over a similar term, and with a similar security, the funds necessary to obtain an asset of a similar value to the right-of-use asset in a similar economic environment
<b>Industry 4.0</b>	Connecting industrial production with modern information and communication technology. The technical foundation is digitally connected smart systems. People, machines, installations, logistics and products communicate and cooperate with each other directly. Optimization of the entire value chain.
<b>Interest rate swap</b>	Interest derivative where two counterparties agree to exchange interest payments at fixed nominal amounts at a specific point in the future

<b>IoT</b>	Internet of Things Connecting machines and devices with each other that previously relied on human control
<b>ISO</b>	International Organization for Standardization
<b>IT</b>	Information technology
<b>IVDR</b>	In-vitro Diagnostic Regulation
<b>IMF</b>	International Monetary Fund
<b>MDR</b>	Medical Device Regulation
<b>Multi-employer-plan</b>	Joint pension plan of several employers
<b>NoBo</b>	Notified body Neutral and independent private organization designated by the state to assess conformity (auditing/certifying body)
<b>NOPAT</b>	Net operating profit after taxes
<b>PPA</b>	Purchase price allocation
<b>PS UCI Portal</b>	Web-based customer portal of the Product Service Division
<b>SARS-CoV-2</b>	Coronavirus Infectious respiratory disease
<b>SEI</b>	Sound emission inspection
<b>Smart Industry Readiness Index</b>	Diagnosis tool to assess the current condition of plants and equipment and to obtain a better understanding of Industry 4.0 concepts in terms of processes, technology and organization
<b>StVZO</b>	“Straßenverkehrszulassungsordnung” (Engl.: German Road Traffic Licensing Regulations)
<b>Supply Chain Management</b>	Establishing and managing integrated logistic chains (flow of material and information) over the entire value-added process
<b>TIC</b>	Testing, Inspection, Certification
<b>TISAX</b>	Trusted Information Security Assessment Exchange
<b>TPR</b>	The Pension Regulator British regulatory agency for pensions
<b>VR</b>	Virtual reality
<b>VVaG</b>	“Versicherungsverein auf Gegenseitigkeit” (Engl.: German mutual insurance association)
<b>WACC</b>	Weighted average cost of capital
<b>WLTP</b>	Worldwide harmonized Light vehicles Test Procedures

# NOTES AND FUTURE-ORIENTED STATEMENTS

In this annual report, TÜV SÜD makes statements relating to the future development of business and future financial and non-financial performance indicators. These statements can be recognized by wording such as “expect”, “intend”, “anticipate”, “plan” and similar terms. These statements are based on current expectations and certain assumptions on the part of the company management, many of which are beyond the control of TÜV SÜD. They are subject to a large number of risks, uncertainties and factors, including but not limited to those described in the annual report. If one or more of these risks or uncertainties should occur, or if it should prove to be the case that the underlying expectations do not materialize or that assumptions were incorrect, the actual events, performance and profits of TÜV SÜD can deviate significantly from the events explicitly or implicitly referred to in the outlook.

Due to rounding, it is possible that individual figures in this annual report do not add up to exactly the given total, and that percentages presented do not reflect exactly the absolute figures to which they refer.

In the event of differences between the English translation and the German version of this annual report, the German version is authoritative and has precedence over the English.

For technical reasons, there may be differences between the accounting documents in this annual report and those published due to statutory requirements.

# IMPRINT

## Published by

TÜV SÜD AG  
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80686 Munich  
Germany

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## Design and layout

MPM Corporate Communication  
Solutions, Mainz, Düsseldorf  
www.mpm.de

## Printed by

G. Peschke Druckerei GmbH, Parsdorf

Published on April 24, 2020







