A reliable partner
The financial year at a glance

Committed to responsibility
Sustainability at Endress+Hauser

Annual report

2021

Endress+Hauser

Financial highlights

	EUR in thousands			CHF in thousands		
	2021	2020	Change	2021	2020	Change
Net sales	2,879,104	2,576,792	11.7%	3,107,187	2,759,074	12.6%
Operating profit (EBIT)	434,003	337,065	28.8%	468,385	360,908	29.8%
Profit before taxes (EBT)	463,775	337,567	37.4%	500,515	361,446	38.5%
Net income	356,795	254,854	40.0%	385,060	272,882	41.1%
Return on sales (ROS)	16.1%	13.1%		16.1%	13.1%	
Productivity factor	1.41	1.34		1.41	1.34	
Equity	2,915,890	2,425,118	20.2%	3,024,302	2,622,669	15.3%
Equity ratio	79.1%	77.0%		79.1%	77.0%	
Total assets	3,688,355	3,149,214	17.1%	3,825,488	3,405,749	12.3%
Capital expenditures	192,847	205,949	–6.4%	208,124	220,518	–5.6%
Cash flow from operating activities	374,674	439,383	–14.7%	404,356	470,465	–14.1%
Number of employees	15,117	14,454	4.6%			

Return on sales
16.1%
(2020: 13.1%)

Employees
15,117
(+663)

Net sales
€2.88 bil.
(+11.7%)

Sales by region

Investments
€193 mil.
(2020: €206 mil.)

Net income
€357 mil.
(+40.0%)

Contents

2021

The year in review

April

Endress+Hauser complies with the highest standards for **cybersecurity**. The company is now certified in accordance with IEC 62443-4-1 (product development), ISO 27001 (digital products and services) and ISO 27017 (cloud applications in the Endress+Hauser Netilion IIoT ecosystem).

February

Rotork, a specialist for flow control solutions, joins the Endress+Hauser **Open Integration** partner program. This initiative was created to ensure the smooth integration of instruments and components into the automation systems of the participating companies, which now number 14.

March

As a founding member of the **Industrial Digital Twin Association**, Endress+Hauser wants to work toward establishing the digital twin as a core technology of Industry 4.0.

April

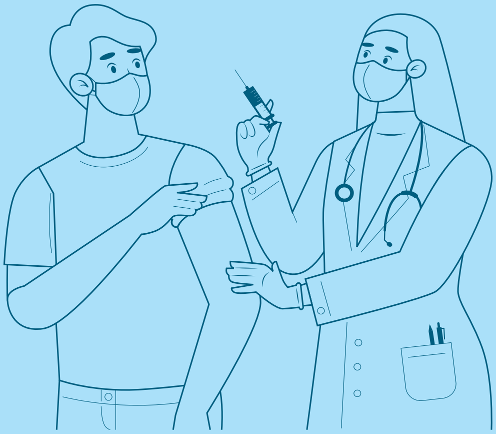
The Group opens a new **logistics hub** in Suzhou, China. The European logistics center will move into significantly larger facilities in Wörrstadt, Germany in the fall.

76/100

May

Endress+Hauser scores 76 out of a possible 100 points in the independent **EcoVadis** sustainability ratings, once again an increase of four points from the previous year. The Group belongs to the top percentile of companies in the comparison group, reaching the highest performance level with a platinum rating.

July



Endress+Hauser opens a **vaccination center** at its location in Aurangabad, India. With the support of the CII industry association and partner companies, more than 50,000 vaccines are administered to the company's own employees and their families, workers at other companies and residents of the surrounding villages.

June

After a one-year pause due to the coronavirus pandemic, the annual Endress+Hauser **Innovators' Meeting** celebrates its return in a virtual space. More than 500 inventors participate in the online event.

July

Endress+Hauser partners with German research association Hahn-Schickard to create **Endress+Hauser BioSense**, a joint venture that aspires to develop devices and methods for rapid molecular analyses.

October

Endress+Hauser opens a modern regional center near **Houston, Texas** to provide support to customers on the Gulf Coast of the US. The company also celebrates the expansion of its level and pressure measurement technology plant in **Maulburg**, Germany.

October

Endress+Hauser celebrates the manufacture of its 3-millionth **electromagnetic flowmeter** since 1977. With these instruments, customers can reliably measure the volume flow of conductive liquids in pipes with diameters ranging from a tiny 2 millimeters to a massive 3 meters.

Supervisory Board President Dr Klaus Endress (left) and Chief Executive Officer Matthias Altendorf are keenly aware of their responsibility.

A reliable partner

Looking back at a special year, 2021 was marked by solid growth for Endress+Hauser from the very start. This development gradually affected all regions and industries as the business increasingly picked up speed through the end of the year. Finally, we not only improved over the prior year but clearly exceeded the comparative figures for 2019.

Our customers placed their trust in us. We were a reliable partner after the outbreak of the coronavirus pandemic and continued to reliably serve our customers as the economy picked up again last year. We continuously delivered despite the strong growth in manufacturing volume. And we were able to ensure the availability of materials and keep our logistics chains running. Most of all, though, our employees gave 100 percent. Undeterred by the constant pandemic restrictions, they were always at our customers' side, virtually and physically.

We'd like to thank our customers who worked with us in a spirit of partnership in 2021. And our employees, all of whom made a deep commitment to Endress+Hauser. We also thank our shareholders for giving us the latitude to further grow the company with a long-term perspective. Together customers, employees and shareholders have made possible an extraordinarily successful year for Endress+Hauser.

Based on that we could further expand our global sales, production and logistics network. We created numerous new jobs and strengthened our efforts in training and education. And along the way we improved the sustainability of our company once again. Much of what we accomplished already reflects our new Strategy 2027+. This strategy will help us make the right decisions on the path to the future to enable the continued success of Endress+Hauser.

We were able to carry the momentum of 2021 over to the current year without a hitch. Although we never experienced a better start to the year than in 2022, the Russian attack on Ukraine changed everything overnight. This conflict is causing suffering to millions of people and is impacting many societies at a time when the coronavirus pandemic and its consequences are far from over.

For 2022, we originally planned to grow at a high single-digit rate. Given current events, we are unsure if this target is possible. What is important, however, is not whether we reach our financial targets, but that we provide our customers with the best possible support in this situation. And that we stick together in our company. In this crisis Endress+Hauser will continue to be a reliable partner.

Dr Klaus Endress
President of the Supervisory Board

Matthias Altendorf
CEO of the Endress+Hauser Group

The Supervisory Board of the Endress+Hauser Group (from left): Dr Hans Jakob Roth, Mathis Büttiker, Sandra Genge, Supervisory Board President Dr Klaus Endress, Antonietta Pedrazzetti, Dr Heiner Zehntner (Secretary), Thomas Kraus and Vice President Michael Ziesemer.

Statement of the Supervisory Board

With new highs in orders-in-hand, net sales, profit and headcount in 2021, we not only improved over the previous year but exceeded the comparative figures prior to the pandemic. At the beginning of last year, we could not have dared hope to conclude the financial year in such a good position. By our standards, this translates to another best-ever year for Endress+Hauser – a year we can be proud of.

This success is also the result of the spirit of loyalty and trust that underpins the way we deal with one another in the company. We said right at the very beginning of the pandemic that we wanted to retain all of our employees and avoid a reduction in working hours. When the business picked up again, every employee was prepared, pitched in and worked hard for the common goal. On behalf of the Supervisory Board and the Endress family, my heartfelt appreciation and personal thanks go out to all of our employees around the world, as well as to the Group management.

The Supervisory Board dealt with all significant business activities of the Group in 2021. The board held five sessions, partly in-person and partly in a virtual environment. The specialist committees met as required and developed recommendations that were

presented to the entire board. The President of the Supervisory Board worked closely with the Executive Board and met with the CEO on a regular basis to exchange views.

PricewaterhouseCoopers AG in Basel, Switzerland completed its audit of the 2021 consolidated financial statements in February and March 2022 and granted an unqualified opinion. At the meeting on 14 March 2022, the Supervisory Board acknowledged the annual report and recommended acceptance to the Annual General Meeting. The consolidated financial statements were adopted by the Endress+Hauser AG Annual General Meeting on 4 April 2022.

The business outlook is clouded by the war in Ukraine, a conflict that has brought human suffering and triggered economic shockwaves around the world. We will stand together and search for a common approach during this crisis as well. We will do that by concentrating on those things that help our customers, because our customers are the one thing we can rely on in a fragile world. We will continue to support them during this crisis, wherever we can and to the best of our ability. This will help us take advantage of the opportunities we are offered, in both good times and difficult times.

Dr Klaus Endress
President of the Supervisory Board

The Executive Board of the Endress+Hauser Group (from left): Corporate Director of Analytical Business Dr Manfred Jagiella, Chief Sales Officer Nikolaus Krüger, Chief Financial Officer Dr Luc Schultheiss, Chief Executive Officer Matthias Altendorf, General Counsel Dr Heiner Zehntner, Chief Human Resources Officer Jörg Stegert, Chief Operating Officer Dr Andreas Mayr and Chief Information Officer Pieter de Koning.

Generation change on the Supervisory Board

The young generation of the shareholder family is assuming more responsibility. Hans-Peter Endress is leaving the Supervisory Board after reaching the age limit of 75. He is succeeded by Sandra Genge, a granddaughter of company founder Dr Georg H Endress. She will represent the interests of the family together with Supervisory Board President Dr Klaus Endress. The Annual General Meeting unanimously approved the change back in 2019.

Sandra Genge (born in 1977) studied media sciences and is a federally certified marketing and communications manager. She was managing partner of an advertising agency for many years. Today, the mother of three works as a self-employed communications consultant. She has represented the younger generation of the shareholder family on the Family Council since 2006. This body serves as the link between family and company and makes important decisions regarding the relationship between the shareholders and the Group.

Sandra Genge has prepared carefully for her role as a member of the Supervisory Board over the past few years. She has been attending Supervisory Board sessions and events for some time now and has participated in the annual strategy meetings between representatives of the shareholder family and Group management. This will ensure a smooth transition of responsibilities.

The younger generation is meanwhile playing an increasingly important role in the shareholder family. This includes involvement in the Family Council, where the eight branches of the family are each represented by one person. Since 2019, the older generation has had three representatives and the younger generation five. The Family Council is furthermore firmly in female hands with six women and two men from the Endress family making up this body.

Sandra Genge succeeds Hans-Peter Endress as a member of the Supervisory Board.

Group Management Report

Endress+Hauser's production staff had to cope with an enormous increase in the number of units produced in 2021.

Endress+Hauser Group Management Report

In 2021, Endress+Hauser has returned to a growth path. Incoming orders, sales, profit and employment have reached new peaks. Apart from catch-up effects, this also reflects an unexpectedly strong and broad-based demand. Despite strained procurement and logistics chains, the Group was able to deliver more sensors and systems last year than ever before.

The Endress+Hauser Group

Corporate profile

Endress+Hauser supports customers in the process industry to improve their products and to manufacture them even more efficiently. Our core expertise lies in the fields of process and laboratory instrumentation.

With our products, solutions and services, we help our customers design safe, reliable, efficient and eco-friendly processes across the entire life cycle. Our customers value our deep understanding of their applications and the special requirements of their industry.

Our offering for process instrumentation and automation includes products, solutions and services for flow, level, pressure and temperature measurement, process analysis and data management. Most of our commercial customers operate in the food & beverage, chemical, water & wastewater, oil & gas, life sciences, mining, minerals & metals, and power & energy industries.

In laboratory instrumentation and automation, under the Analytik Jena brand we market analytical instruments and bioanalytical systems that we also supply to science and research customers.

Sensors and sensor modules are the domain of Innovative Sensor Technology IST. Physical and chemical sensors as well as biosensors from IST are being used within and beyond process automation.

Group structure

At the end of 2021, the Group comprised 130 companies in 55 countries. The parent company of the Group is Endress+Hauser AG in Reinach, Switzerland. Our production centers bundle the knowledge from research, development, production, product management, quality assurance and logistics. The Endress+Hauser sales centers act as the face of the company when it comes to the market and customers. In collaboration with our representatives, they are responsible for worldwide sales, marketing and services.

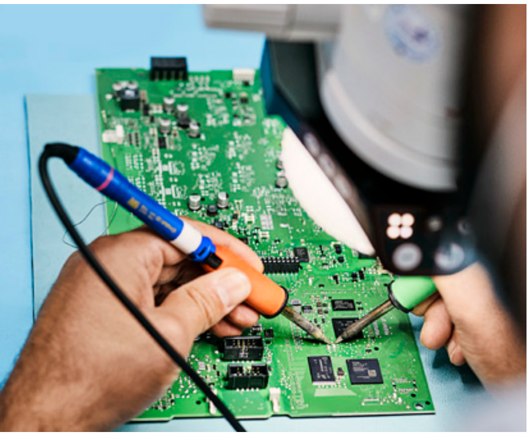
Production centers and sales centers are legally independent business units, as are the support and holding companies that perform cross-corporate functions. Some of the recently acquired companies also have integrated structures for production, sales and support functions.

Group management lies in the hands of the Executive Board of Endress+Hauser AG, chaired by the CEO. Business and organizational regulations define the competencies and responsibilities of the Executive Board and the independent Supervisory Board.

Values and strategy

Our vision describes the high-level, long-term goal of the company: we strive to be a successful family-owned company. In lab and process automation, customers around the world trust and rely on our products, solutions and services to improve their processes, and thus their products. And from our mission we formulate a mandate: we support our customers to improve their products and to manufacture them even more efficiently.

Guided by our vision and mission, our new Strategy 2027+ gives us orientation on our way into the future. It outlines seven strategic directions of impact on which we intend to work intensively over the next few years to continue meeting our customers' expectations in the future, too. We have rolled out Strategy 2027+ over the past year. The individual Group companies are currently drawing up their own strategies on this basis. These



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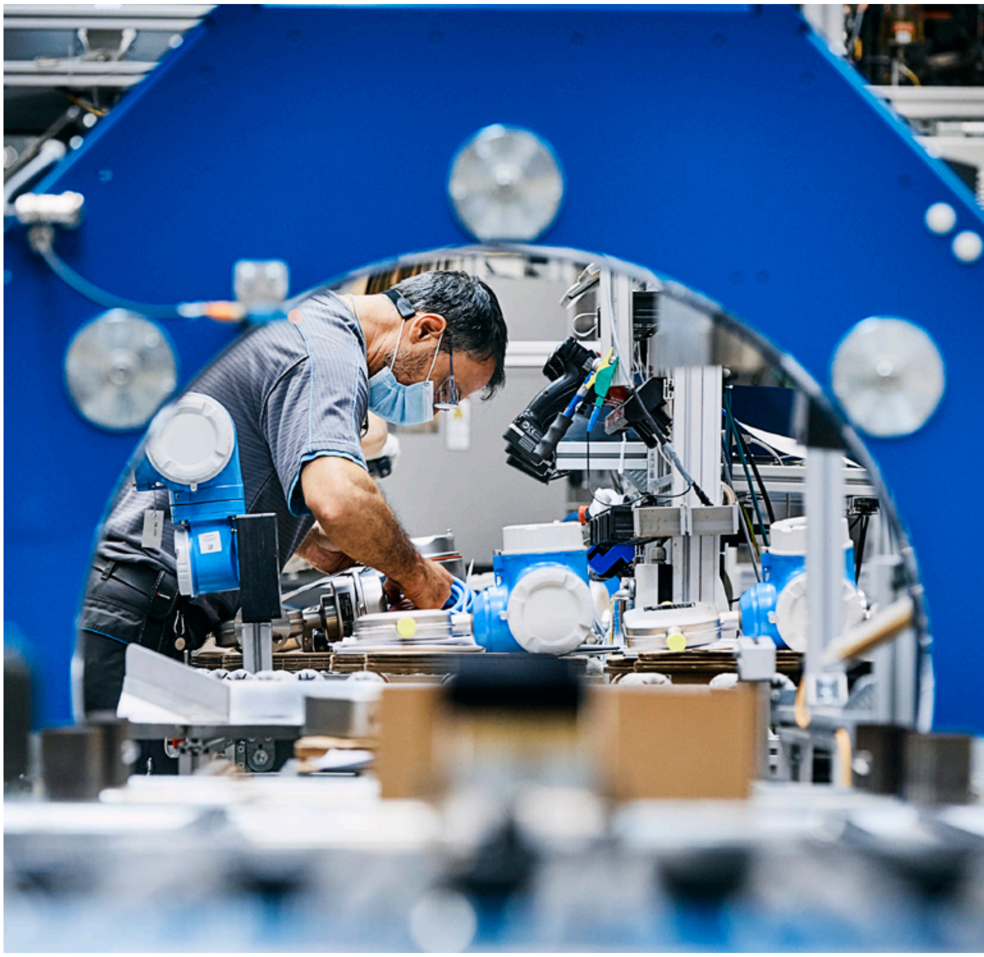

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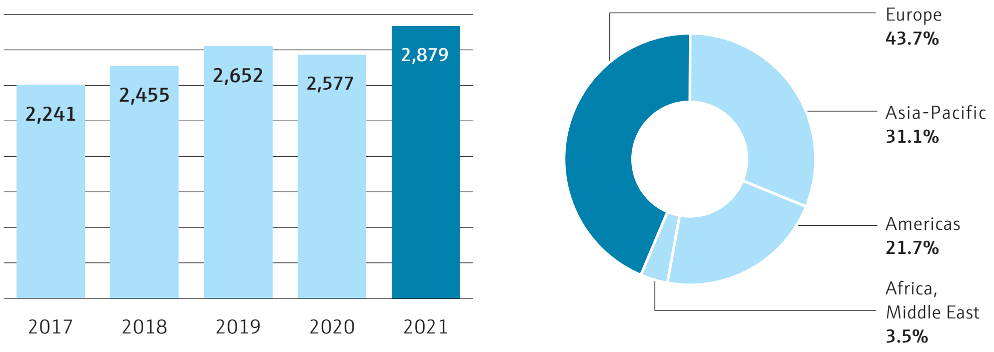
Net sales and net sales by regions
(EUR in millions)



4

1
Strong supplier relationships were helpful in ensuring availability of materials.

2
In some cases, additional shifts had to be run in manufacturing to process all orders.

3
Last year Endress+Hauser delivered 2.6 million instruments.

4
Endress+Hauser was always able to deliver in 2021.

are implemented through initiatives and projects along our business processes, which we harmonize and coordinate across the Group.

Endress+Hauser is founded on a corporate culture firmly rooted in the company. Fundamental principles and values have been recorded in the Spirit of Endress+Hauser. In addition, a binding Endress+Hauser Code of Conduct has been implemented across the Group. A Brand Guide raises our employees' awareness of the importance of the Endress+ Hauser brand and how to implement it correctly.

Technology and innovation
Last year we launched more than 70 new products and 1,000 device options among our markets and customers. We applied for 258 initial patent filings at patent offices around the world. This is clear evidence of Endress+Hauser's strong focus on innovation. More than 8,600 active patents and patent applications protect our intellectual property.

In 2021, we spent 213.4 million euros, an increase of 9.4 percent compared to the previous year, on research & development. This equates to 7.4 percent of our consolidated sales. Almost 1,200 of our employees are working on the development of new products, solutions and services. Following the digitalization of industry, firmware, connectivity and the integration capability of our instruments are becoming increasingly important, as are software-based solutions and services.

Market development

Business environment
The economic recovery expected by the International Monetary Fund (IMF) for 2021 did take place but weakened in the second half of the year. New waves of the coronavirus pandemic led to further disruptions in global supply chains as well as restrictions on mobility. Increasing energy prices and persistent supply bottlenecks resulted in higher and more broadly based inflation than expected. Over the last year, the IMF thus adjusted its forecasts downward.

According to the IMF, economic output in the industrialized countries rose by an average of 5.0 percent in 2021. The United States of America recorded an increase of 5.6 percent, in the Eurozone the figure was 5.2 percent, in Germany 2.7 percent and in Japan 1.6 percent. The recovery was more pronounced in some European economies that had been hit hard by the pandemic in 2020, including the United Kingdom (7.2 percent growth), France (6.7 percent) and Italy (6.2 percent).

In the emerging and developing countries, the economic output increased on average by 6.5 percent in 2021. According to the IMF, India recorded a growth rate of 9.0 percent and China a rate of 8.1 percent. Brazil's economy was up 4.7 percent and Russia's 4.5 percent.

Market trends
For 2021, the German Electrical and Electronic Manufacturers' Association (ZVEI) forecasted 9 percent growth in the automation industry. The ZVEI measurement technology and process automation section estimated an even higher increase in incoming orders of 12 percent, with reference to catch-up effects. Positive momentum came primarily from Asia, especially China, Europe, Latin America and the United States, according to the ZVEI. The performance of Russia and the Middle East was weaker. Almost all target industries for process automation – chemical, pharmaceutical, life sciences, food & beverage, plant engineering and the marine industry – showed high growth rates, according to the association.

Competition
The lines between factory and process automation are becoming less strict, a development driven in part by digitalization and modularization of production plants. Major competitors are strengthening their efforts to position themselves accordingly. Within our own closer market environment, the competitive situation has not changed significantly. Competition is especially strong in individual product segments. In emerging countries, local providers are becoming more visible. In addition, suppliers in the field of factory automation are establishing themselves in the market for process sensor technology.

Endress+Hauser in the marketplace
The Endress+Hauser Group's consolidated sales have grown substantially in 2021; incoming orders have increased at an even higher pace. Exchange rates had only a minor impact on our income statement compared to previous years. Overall, currency translation resulted in lower sales of approximately 10 million euros in 2021. According to our own calculations, our sales developed more dynamically than the market for process instrumentation as a whole, which enabled us to further strengthen our position.

After three weak quarters as a result of the coronavirus pandemic in 2020, we made a good start to 2021. We were able to keep this momentum throughout the year and even strengthen it over time. Even at the end of the year, this strong business performance continued. Virtually all regions and industries were up considerably. China, the United States, Switzerland and India turned out to be the most dynamic markets.

Compared to Asia and the Americas, our business in Europe developed somewhat more slowly, but above the economy in general. Germany, our third-largest market globally, recorded good growth, along with Italy and France. In Switzerland, the life sciences industry created momentum.

In the Asia-Pacific region – Australia, China, India, Thailand and Malaysia – we recorded very strong growth. China further expanded its lead as our largest sales market. Sales in the USMCA region (formerly NAFTA) also recovered substantially. As in the previous year, the Latin American countries performed particularly well. While Africa was in the plus, development in the Middle East was disappointing, where business in the oil & gas industry has not yet returned to its previous level.

All our strategic industries contributed to the strong growth, this time the cyclical as much as the non-cyclical sectors, with life sciences, chemical and food & beverage in the lead. We were able to exceed pre-Covid 2019 sales figures in all sectors. With significant double-digit growth, the recovery in project business was particularly noticeable. The service segment also showed above-average growth.

As concerns process automation, in 2021 our business was partly driven by catch-up effects. Laboratory instrumentation, which had experienced significant growth in 2020 due to the demand for PCR diagnostics, was able to continue its good development and improved further from an already high level. As expected, we saw a decline in sales in the sensors segment owing to a long-term supply contract. The core business with sensors and sensor modules developed in a very positive way.

Advanced analysis also achieved good growth. Following life sciences, the chemical industry is increasingly discovering the opportunities offered by inline measurement with Raman spectrometers. To be able to provide customers with competent advice in this area, we have established a network of experts in our sales centers across Europe, backed up by a support center for optical analyzers in Lyon, France. We will now be rolling out this successful model in the Asia-Pacific region as well.

This development encourages us in our goal to assist customers from laboratory to process and to strengthen our offering especially in the field of advanced analysis and quality measurements. In 2021, evidence again highlighted the significance of digitalization, which offers opportunities we want to make even better use of in future in our products, in collaboration with our customers and in our internal processes.

Corporate development

General development
In 2021, we continued to drive forward the long-term development of the Group despite the pandemic. We have continued our major investment projects as planned and expanded our sales, production and support network. We provided security for our employees and partners during the crisis. We held on to our employees and continued our commitment to vocational training. As a result, we were able to provide immediate support to our customers and to cope with the high number of incoming orders when business picked up in 2021.

At the same time, we managed to successfully increase productivity at a high level and to improve profitability, which again strengthened the Group's financial power. This reflects our goal of maintaining a balanced corporate development that equally

Product innovations are an important driver of our business. Nearly 1,200 people work on new products and technologies at Endress+Hauser.

suits the interests of our customers, employees and shareholders. At the same time, we live up to our responsibility toward the environment and society.

Establishment, acquisition and divestiture of companies
New companies strengthen our corporate network. In early 2021 Endress+Hauser and ifm set up a joint venture. Under the name of Automation24, we operate a manufacturer-independent online trading platform for automation products with our partner. The partner companies brought their former subsidiaries Automation24 GmbH (ifm) and Process & Lab Devices Online GmbH (Endress+Hauser) into the joint venture where they continue to develop their respective activities. The joint platform is intended to be open to other companies for participation.

In Freiburg, Germany, Endress+Hauser BioSense GmbH was established. The joint venture with the Hahn-Schickard Society for Applied Research aims to increase safety in food production and other process engineering applications and enable fast on-site molecular analysis to detect, for example, bacterial or viral contamination in water and beverages, genetic alterations in food or impurities in milk.

In the United States, we founded Endress+Hauser Flow (USA) Inc. and merged a former operating facility into the new company at the end of 2021. In Thailand, we established Analytik Jena Instruments (Thailand) Ltd. In Peru, Kazakhstan, Egypt and Oman, we opened additional sales offices.

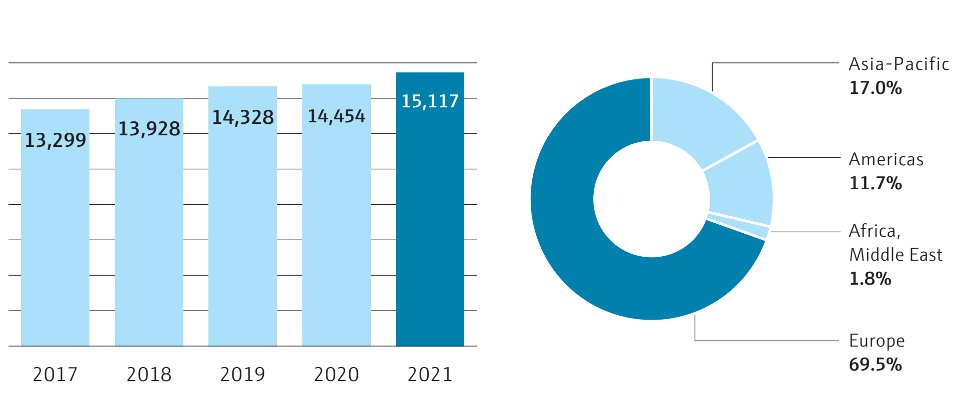
At the same time, we have focused our Group once again. We merged Endress+Hauser Systemplan GmbH with Endress+Hauser Process Solutions (Deutschland) GmbH and renamed it Endress+Hauser Digital Solutions (Deutschland) GmbH. In Ireland, we divested our shares in CompuCal Calibration Solutions Ltd. In the United Kingdom, Ultra-Violet Products Ltd. was dissolved. Endress+Hauser (Netherlands) Holding BV was merged into Endress+Hauser Management AG.

Strategic partnerships
In order to address the challenges of digitalization, we are increasingly seeking to strengthen relationships with partners. We are one of the founding members of the Open Industry 4.0 Alliance as well as the Industrial Digital Twin Association. In 2021, the two organizations entered into a strategic partnership with the mission of advancing the digitalization of the industry. Meanwhile, 13 well-known manufacturers have joined our own Open Integration Partner Program. In collaboration with our partners, we strive to ensure the smooth interaction of different products in Industry 4.0 applications.

Economic indicators
With an overall increase in net sales of 11.7 percent, we significantly exceeded our own expectations in 2021. Return on sales was 16.1 percent, above our strategic target of 13.0 percent. We have increased the productivity factor – reflecting the net value added related to personnel expenses – to the exceptionally high figure of 1.41, which is significantly above our target of 1.33. The equity ratio at the end of the year increased to 79.1 percent, 2.1 percentage points more than the previous year. Our strategy requires a minimum ratio of 70.0 percent.

Social and environmental indicators
Endress+Hauser is keenly aware of its economic, social and ecological responsibilities. We understand creation and preservation of secure jobs to be part of our corporate social responsibility. Against this backdrop, in the crisis year of 2020 we felt it was important not to lay off any employees as a consequence of the pandemic and to avoid reduced working hours.

Employees of the Endress+Hauser Group



To cope with the significant growth in units produced we have created new jobs, mainly in manufacturing. Our global workforce increased by 663 to 15,117, a gain of 4.6 percent. As usual, we were able to offer virtually every apprentice a permanent position upon completion of their vocational training. Across the whole Group, we trained 360 young people. This equates to a trainee ratio of 2.5 percent.

We offer vocational training programs in some European countries as well as in India and the USA. In addition, we sponsor talented and keen people in their engineering and business administration studies and again sought cooperation with colleges and universities around the world at many levels.

Well-trained professionals are key to the success of our company. At the same time, we also believe that our commitment to vocational training of young people is a way of demonstrating our social responsibility. In the long term Endress+Hauser therefore strives to double the training rate. Five percent of all positions worldwide will be reserved for interns, apprentices, trainees and students. We are working on a concept to implement this plan over the next few years.

This year we publish our eighth sustainability report together with our Group management report (starting on page 69). We consider the EcoVadis score a key indicator in this regard. In the past year, for the first time we achieved platinum level in this audit. With 76 out of 100 points (2020: 72 points), we are among the top percentile of the companies in our comparison group. Our strategic goal is to place in the top 25 percent.

To make further progress in the area of sustainability, we have created the position of a Corporate Social Responsibility Officer at Group level. The objective is to advance Endress+Hauser's

Income statement in brief (EUR in thousands)

	2021	2020	Change	
Net sales	2,879,104	2,576,792	302,312	11.7%
Total operating expenses	–2,504,871	–2,270,796	–234,075	10.3%
Operating profit (EBIT)	**434,003**	**337,065**	**96,938**	**28.8%**
Net financial result	31,978	502	31,476	
Profit before taxes (EBT)	**463,775**	**337,567**	**126,208**	**37.4%**
Income taxes	–106,980	–82,713	–24,267	29.3%
Net income	**356,795**	**254,854**	**101,941**	**40.0%**

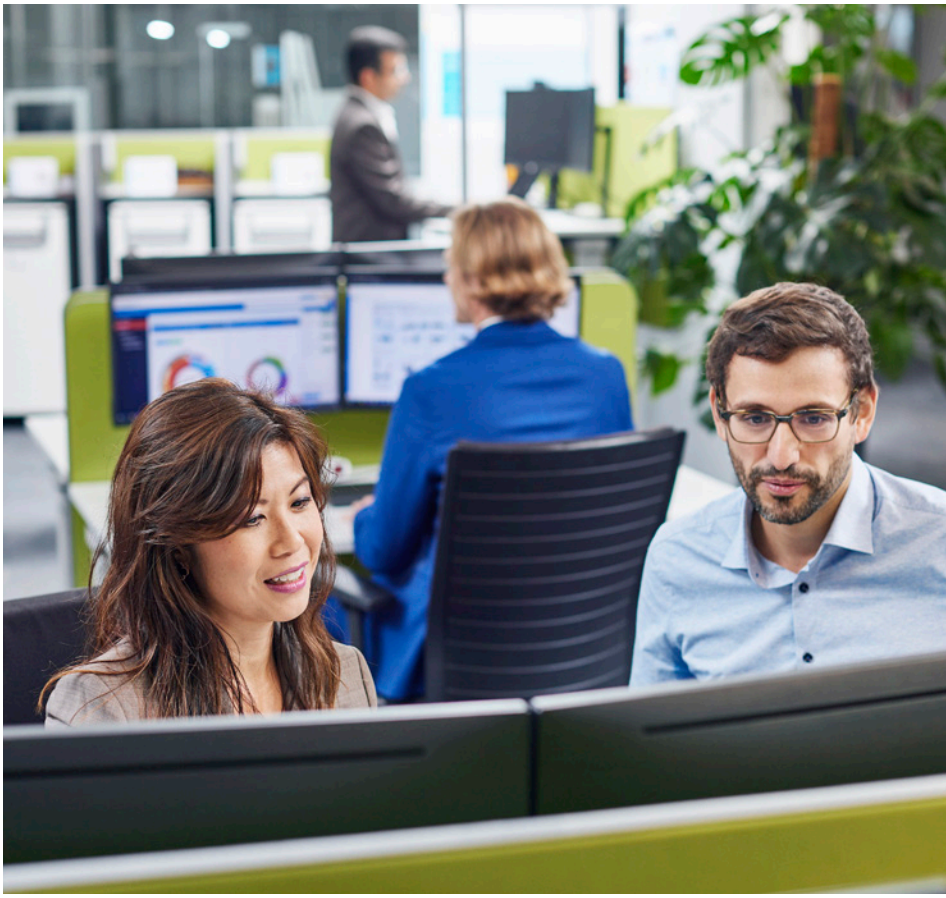
Balance sheet in brief (EUR in thousands)

	2021	2020	Change	
Non-current assets	1,682,589	1,476,449	206,140	14.0%
Inventories	457,460	357,467	99,993	28.0%
Accounts receivable	668,084	543,171	124,913	23.0%
Short-term financial assets	398,473	315,497	82,976	26.3%
Cash and cash equivalents	481,749	456,630	25,119	5.5%
Total assets	**3,688,355**	**3,149,214**	**539,141**	**17.1%**
Equity	2,915,890	2,425,118	490,772	20.2%
Retirement benefit obligations	89,212	178,852	–89,640	–50.1%
Other non-current liabilities	123,959	133,193	–9,234	–6.9%
Trade accounts and notes payable	116,086	96,197	19,889	20.7%
Other current liabilities	443,208	315,854	127,354	40.3%
Total equity and liabilities	**3,688,355**	**3,149,214**	**539,141**	**17.1%**

1
Communication and interaction are key to an inspiring and attractive working environment.

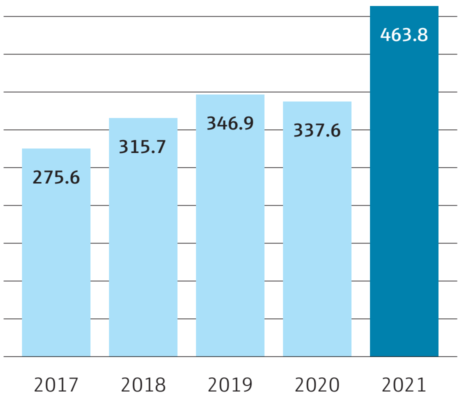
2
Digitalization is changing the workplace, but face-to-face collaboration remains important.

1

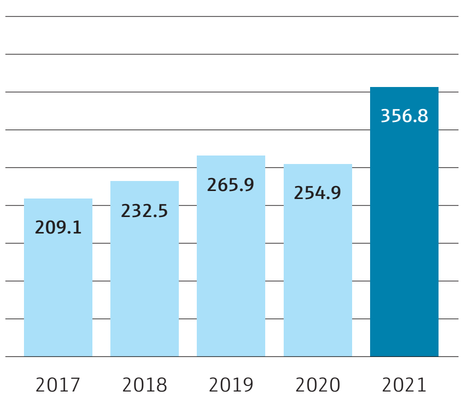


2

Profit before taxes
(EUR in millions)



Net profit
(EUR in millions)



sustainability strategy, which is becoming increasingly important for our customers as part of their efforts to achieve climate neutrality. In addition to the independent EcoVadis audit, we are aiming for an assessment under the Carbon Disclosure Project for the first time in 2022.

Results of operation, financial position and net assets

Sales performance
Net sales increased to 2.879 billion euros in 2021. Adjusted for exchange rate effects, growth would have been 0.4 percent higher. At constant currencies revenues would have been higher by some 10 million euros.

Our revenues increased in almost all regions in 2021. Our business grew by 7.2 percent in Europe, by 17.4 percent in Asia-Pacific and by 16.8 percent in the Americas. Only in Africa and the Middle East did we record a decline in sales of 4.6 percent. We grew by 12.9 percent in the process technology segment and by 7.2 percent in the laboratory business. Despite a good business performance in the sensor segment, overall sales contracted by 11.9 percent, as expected, due to a long-term supply contract.

Consolidated income statement
Operating profit (EBIT) increased by 28.8 percent to 434.0 million euros. Operating expenses increased below average compared with consolidated sales, rising by 10.3 percent to 2.505 billion euros.

Due to hiring and effects resulting from variable remuneration components, personnel expenses rose by 7.9 percent to 1.100 billion euros. Expenses for purchased goods and services increased, caused among other things by higher purchase prices and freight rates, by 17.2 percent to 823.5 million euros. Other operating expenses grew by 10.5 percent to 441.9 million euros, in particular due to sales-related commissions for our representatives. Depreciation and amortization fell to 139.8 million euros despite strong investment activities.

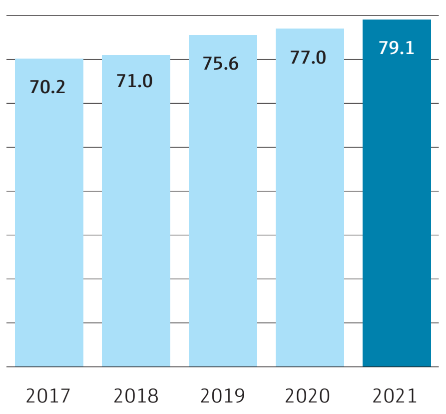
Profit before taxes (EBT) increased by 37.4 percent to 463.8 million euros, mainly because the financial result of 32.0 million euros is significantly above the previous year. Benefiting from lower currency hedging costs, our net foreign exchange losses of 1.3 million euros were considerably lower than in 2020 (6.7 million euros). Net interest income was positive again at 1.3 million euros. We achieved a good result of 31.9 million euros with our financial investments thanks to the strong performance of the stock markets (2020: 7.5 million euros).

Our net income improved by 40.0 percent to 356.8 million euros as a result of an effective tax rate that fell to 23.1 percent.

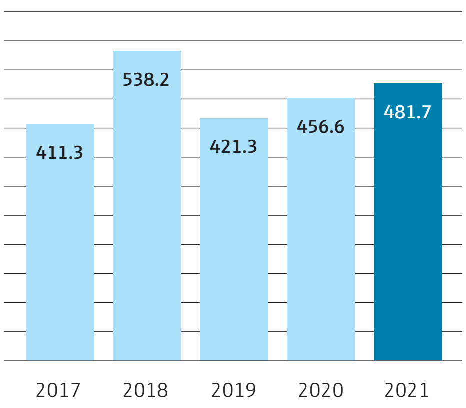
Consolidated balance sheet
Exchange rate effects are reflected in the consolidated balance sheet. Non-current assets increased by 14.0 percent to 1.683 billion euros in 2021. Tangible fixed assets reached 1.163 billion euros at the end of the year, 7.2 percent more than in 2020 – a consequence of exchange rate movements as well as our still extensive investment activities. In 2021, we invested 36.0 million euros in associated companies. Long-term financial assets increased by 99.2 million to 272.1 million euros owing to reallocations of funds and the appreciation of the Swiss franc.

Current assets increased by 19.9 percent to 2.006 billion euros. Short-term financial assets rose by 26.3 percent to 398.5 million euros. Cash and cash equivalents increased by 5.5 percent to 481.7 million euros. To increase our safety stocks, we raised inventories by 28.0 percent to 457.5 million euros. Trade accounts receivables rose by 15.9 percent to 522.0 million euros due to sales-related effects.

Equity ratio
(in percent)



Cash equivalents
(EUR in millions)



Equity increased by 20.2 percent to 2.916 billion euros. At the same time, total assets climbed by 17.1 percent to 3.688 billion euros on account of exchange rate effects and the appreciation of our assets. As a consequence, the equity ratio further grew by 2.1 points to 79.1 percent, a highly respectable figure for our industry.

Pension obligations fell by 50.1 percent to 89.2 million euros as a result of the increase in discount rates. Long- and short-term provisions increased by 52.1 percent to 202.5 million euros. This includes provisions for variable and performance-based salary components, which we had to raise compared to 2020.

We lowered bank loans to 1.3 million euros. We only use this instrument if internal funding is impossible or does not seem sensible. Our total liabilities increased by 6.7 percent to 772.5 million euros. The Group's healthy financial situation is also shown in a still strong cash flow from operating activities. Due to impacts from the build-up of inventories and increase of current receivables, cash flow decreased by 14.7 percent to 374.7 million euros.

Capital expenditures

Last year we invested 192.8 million euros in buildings, plant and machinery, software and information technology, 6.4 percent less than the previous year. We continued and implemented all major investment projects despite the pandemic. This allowed us to further strengthen our sales and production network throughout the world.

At 58.1 million euros, the largest single project concerns the expansion of our production center for flow measurement engineering in Reinach, Switzerland. Flow and temperature measurement capacities are also being expanded in Aurangabad, India, at a total cost of 10.2 million euros. Our product center for liquid analysis is expanding its sensor production facilities in Waldheim, Germany at a cost of 22.5 million euros and is expanding the site in Gerlingen, Germany at a cost of 11.8 million euros.

Our Canadian salesforce relocated to a new 12.7 million euro customer experience center in Burlington, Ontario. Our sales center in Mexico is building its own premises in Mexico City at a cost of 7.5 million euros.

Supplemental report

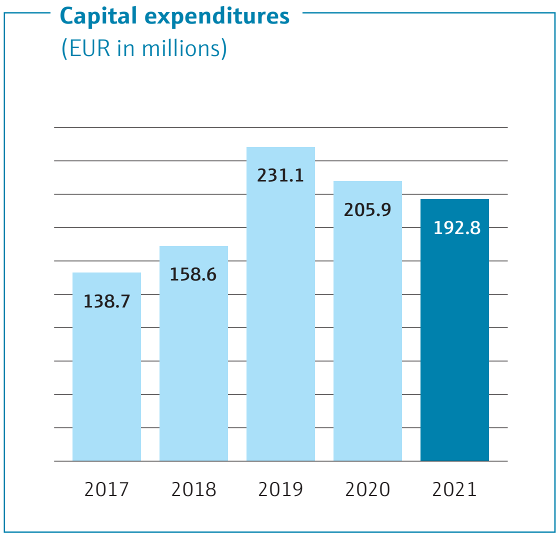
Events after the end of the financial year

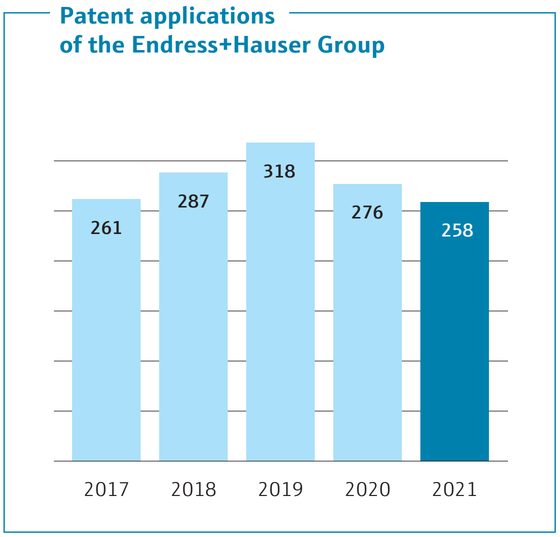
The Russian Federation launched a war of aggression against Ukraine on 24 February 2022. In response to the invasion, the United States and the European Union intensified sanctions already in place since the annexation of Crimea and expanded them to Belarus. In addition to restrictions on trade and disruptions in global supply chains, impacts are to be expected, particularly on energy, raw material and food prices. According to experts, this will intensify existing inflationary trends and increase uncertainty in the markets.

Risk report

Risk management

On principle, Endress+Hauser takes only calculable risks when making business decisions. According to the principles of corporate governance, we introduced an Internal Control System (ICS), designed to meet the needs of our company.





Our employees were always available for our customers last year – virtually via online platforms and in person on site, if required.

The company attempts to reduce uncertainty resulting from economic and sector-related developments, fluctuations in exchange rates, political events of worldwide significance or natural disasters by means of broad-based support in the market in terms of industries, regions and customer segments as well as products, solutions and services. The Supervisory Board plays an important role as a supervisory and advisory body and supports the work of the Executive Board constructively, thus increasing the quality of all fundamental business decisions.

Risks for the company
In accordance with our risk-management guidelines, we raise awareness of business risks at all levels and encourage all associates to avoid and minimize unnecessary risk. A Group standard for Business Continuity Management has been introduced. Appropriate coverage is provided in terms of essential liability and claims risks. Beyond already posted provisions, there are currently no significant risks from legal cases.

We reduce financial risks from exchange and interest rates with the aid of derivative hedging instruments. Explanations of our financial risk management can be found in our Accounting Policies. Manufacturing close to customers in the various regions of the world reduces the impact of exchange rate fluctuations. These production sites mainly invoice in the respective local currencies.

A consistent IT security concept guarantees an exceptionally high level of protection from loss of data. Environmental and security risks connected with our activities and our production sites are negligible.

Report on opportunities

Opportunity management
Opportunities for the company arise from its strategic focus, economic development, the outcomes of its research & development work and the performance and achievements of the company's employees. In all these areas Endress+Hauser pursues systematic approaches to safeguard sustained business success.

Opportunities for the company
Our broad-based orientation allows us to partake in the growth of varied industries in the process industry. The worldwide presence of sales and production makes sure that we remain dynamic as a business, especially in emerging countries.

To ensure that enough suitable and dedicated employees, apprentices and trainees find their way to us, we rely on activities at many levels to make Endress+Hauser a more attractive employer, according to the needs of our respective locations. These activities include continuous investments in up-to-date professional education and training programs, targeted measures for a better work–life balance and retirement models tailored to the needs of the employee.

Our close cooperation with selected universities, colleges and research facilities, as well as wide-ranging activities in research & development, keep our powers of technological innovation at a high level. Apart from our established innovation management program, this is supplemented by increased efforts to create new expertise and skills outside our existing structures with the help of start-ups and corporate venturing. These new entities are designed to serve over time as a breeding ground for innovations across the entire company.

Digitalization, which offers the potential to drive efficiency across the entire value chain, is currently providing additional opportunities for the Group companies. We want to grow above average in the mid to long term by employing advanced analytical engineering to a greater degree in process technology applications, as well as by developing the market for laboratory analysis.

Report on expected developments

Business environment
The IMF had adjusted its expectations downward in its January 2022 World Economic Outlook even before the war in Ukraine broke out. The global economy had started the current year weaker than expected. According to the organization, the coronavirus pandemic continues to cause uncertainty, with ongoing supply disruptions and high inflation affecting economic recovery.

The analysts expect global economic output to rise by 4.4 percent in 2022 (as of January). For the developed economies, the IMF expects an increase of 3.9 percent; for the emerging and developing economies, it's 4.8 percent. The forecast for the United States is 4.0 percent economic growth, and the respective rates for the Eurozone and Germany are 3.9 and 3.8 percent. For China the organization expects an increase in economic performance of 4.8 percent. For India the figure is 9.0 percent, for Brazil 3.7 percent and for Russia 2.8 percent.

Economic effects of the war in Ukraine are not yet included in these projections. The United States and the European Union have been responding to the Russian invasion with sanctions. Experts believe that, as a consequence, trade with Russia is likely to collapse and supply chains will be disrupted. Rising energy, commodity and food prices are likely to reinforce the already existing inflationary trends; moreover, the situation increases uncertainty for consumers and investors.

According to experts, the war could considerably slow down the recovery of the global economy from the impacts of the pandemic, depending on the duration and extent of the conflict, as well as the scope and severity of sanctions. In addition, Russian retaliatory measures cannot be excluded. As of the editorial deadline for this annual report (14 March 2022), no dependable statements could be made in this regard.

Objectives of company development
The ZVEI had expected the positive trend in automation to continue in 2022 and predicted global growth in the industry of 6 percent (as of July 2021). The ZVEI measurement technology and process automation section again expected above-average development for this subsegment, with growth in the high single-digit percentage range in terms of incoming orders.

Endress+Hauser has started 2022 with a record volume of orders in hand. In the first nine weeks, the strong development of the previous year continued, and we are well ahead of the figures for the same period in 2021 in terms of incoming orders and net sales.

Consolidated in euros, our target for the Group is growth in the higher single-digit region. On the earnings side, we anticipate a decline in profitability. Many of the savings we realized in 2020 and 2021, for example by omitting business travel, customer seminars and event attendance, cannot be repeated. Rising prices for transportation, raw materials and components are going to impact expenses.

At the time of preparing this annual report in early March 2022, we are not yet able to fully assess the impact of the war in Ukraine on our business. With regard to Russia, Belarus and Ukraine, we expect a total loss of business.

In general, Endress+Hauser is active in areas that are highly relevant to society, irrespective of economic developments and geopolitical influences. Our products, solutions and services contribute to ensuring the supply of water, food, medication, energy and everyday necessities to a growing world population. In doing so, we help to utilize resources carefully and to protect the environment.

Against this backdrop, our Strategy 2027+ aligns us even more closely to the constantly changing needs of markets and customers. The digitalization of industrial manufacturing continues to offer significant momentum for our business; we also expect process and laboratory analysis to continue to develop above average.

Last but not least, we consider innovation one of the most important drivers of our business. We are planning to launch over 30 product innovations in the course of the year; the number of new device options will exceed 1,500 due to the UKCA marking that will be required in the United Kingdom in future.

Important projects
We are planning investment projects totaling over 300 million euros in 2022. A large proportion of this amount will again flow into our production facilities. The largest projects involve the expansion in Reinach, Switzerland, the further development of the Maulburg, Germany site and a new plant in Suzhou, China. Construction is also in progress at the manufacturing sites in Gerlingen and Waldheim in Germany as well as Aurangabad in India.

Regarding our sales organization, new buildings are being constructed in Vantaa, Finland and Mexico City, Mexico; in Buenos Aires, Argentina and Sydney, Australia, our sales centers are planning to purchase buildings.

General statement on corporate development
Thanks to our broad support base in terms of products, regions and industries, and also owing to our sustainable strategic alignment, we see ourselves well positioned even in a still challenging environment. Our independence as a solidly financed family-owned company allows us to continue to guide the Group through difficult times with a long-term perspective and further pursue key future projects. We are in a position to quickly make all necessary decisions.

We continue to address the exceptional situation caused by the Ukraine conflict and the coronavirus pandemic, as well as the associated economic consequences, with flexibility and agility. Even in times of crisis, we want to take advantage of the opportunities we have and continue to successfully develop the company in a business environment that is likely to change for a long period or perhaps even permanently.

Consolidated financial statements

Consolidated balance sheet

Assets		EUR in thousands		CHF in thousands	
	Notes	Year ended 31 Dec 2021	Year ended 31 Dec 2020	Year ended 31 Dec 2021	Year ended 31 Dec 2020
Non-current assets					
Tangible fixed assets	11	1,136,491	1,060,560	1,178,746	1,146,953
Intangible assets	12	139,470	134,664	144,655	145,634
Investments in associated companies	13	34,021	0	35,286	0
Long-term financial assets	14	272,070	172,889	282,186	186,973
Deferred tax assets	21	100,537	108,336	104,275	117,161
Non-current assets		**1,682,589**	**1,476,449**	**1,745,148**	**1,596,721**
Current assets					
Inventories	15	457,460	357,467	474,468	386,586
Trade accounts receivable	16	521,984	450,471	541,391	487,166
Current income tax assets		5,294	12,135	5,491	13,124
Other accounts receivable	17	140,806	80,565	146,041	87,128
Short-term financial assets	14	398,473	315,497	413,288	341,197
Cash and cash equivalents	18	481,749	456,630	499,661	493,827
Current assets		**2,005,766**	**1,672,765**	**2,080,340**	**1,809,028**
Total assets		**3,688,355**	**3,149,214**	**3,825,488**	**3,405,749**

The notes are an integral part of these consolidated financial statements.

Equity and liabilities		EUR in thousands		CHF in thousands	
	Notes	Year ended 31 Dec 2021	Year ended 31 Dec 2020	Year ended 31 Dec 2021	Year ended 31 Dec 2020
Equity					
Share capital		14,842	14,842	22,000	22,000
Other reserves		204,148	23,542	211,738	25,460
Retained earnings		2,689,441	2,381,166	2,782,828	2,569,187
Capital and reserves attributable to shareholders		**2,908,431**	**2,419,550**	**3,016,566**	**2,616,647**
Non-controlling interest		7,459	5,568	7,736	6,022
Equity		**2,915,890**	**2,425,118**	**3,024,302**	**2,622,669**
Liabilities					
Long-term loans	19, 20	36,983	38,919	38,358	42,089
Deferred tax liabilities	21	42,335	50,062	43,909	54,140
Retirement benefit obligations	22	89,212	178,852	92,529	193,421
Long-term provisions	23	44,408	43,919	46,059	47,497
Other long-term liabilities	24	233	293	242	317
Non-current liabilities		**213,171**	**312,045**	**221,097**	**337,464**
Short-term loans	19, 20	48,018	37,953	49,803	41,045
Trade accounts and notes payable	19	116,086	96,197	120,402	104,033
Current income tax liabilities		46,566	18,663	48,298	20,182
Short-term provisions	23	158,072	89,218	163,949	96,486
Other short-term liabilities	24	190,552	170,020	197,637	183,870
Current liabilities		**559,294**	**412,051**	**580,089**	**445,616**
Liabilities		**772,465**	**724,096**	**801,186**	**783,080**
Total equity and liabilities		**3,688,355**	**3,149,214**	**3,825,488**	**3,405,749**

The notes are an integral part of these consolidated financial statements.

Consolidated income statement

		EUR in thousands		CHF in thousands	
	Notes	**2021**	**2020**	**2021**	**2020**
Net sales	6	**2,879,104**	**2,576,792**	**3,107,187**	**2,759,074**
Change in inventories		27,869	2,574	30,077	2,756
Own work capitalized		7,015	8,921	7,571	9,552
Other operating revenues		24,886	19,574	26,857	20,959
Purchased goods and services		−823,524	−702,882	−888,764	−752,604
Personnel expenses	7	−1,099,615	−1,019,138	−1,186,727	−1,091,232
Depreciation and amortization		−139,818	−148,949	−150,894	−159,486
Other operating expenses	8	−441,914	−399,827	−476,922	−428,111
Total operating expenses	9	**−2,504,871**	**−2,270,796**	**−2,703,307**	**−2,431,433**
EBIT / Operating profit		**434,003**	**337,065**	**468,385**	**360,908**
Result from associated companies	13	−2,206	0	−2,381	0
Net financial result	10	31,978	502	34,511	538
EBT / Profit before taxes		**463,775**	**337,567**	**500,515**	**361,446**
Income taxes	21	−106,980	−82,713	−115,455	−88,564
Net income		**356,795**	**254,854**	**385,060**	**272,882**
Attributable to					
Shareholders		356,410	255,026	384,645	273,066
Non-controlling interest		385	−172	415	−184
		356,795	**254,854**	**385,060**	**272,882**

The notes are an integral part of these consolidated financial statements.

Consolidated comprehensive income

		EUR in thousands		CHF in thousands	
	Notes	2021	2020	2021	2020
Net income		**356,795**	**254,854**	**385,060**	**272,882**
Other comprehensive income					
Remeasurements of the net defined benefit liability	22	83,257	−14,887	89,853	−15,940
Income taxes thereon	21	−17,475	3,486	−18,859	3,733
Items that can not be reclassified to net income		**65,782**	**−11,401**	**70,994**	**−12,207**
Gains (+) or losses (−) from translating the financial statements of foreign subsidiaries	2.4	115,029	−48,775	124,142	−52,226
Items that can be reclassified to net income		**115,029**	**−48,775**	**124,142**	**−52,226**
Other comprehensive income		**180,811**	**−60,176**	**195,136**	**−64,433**
Comprehensive income		**537,606**	**194,678**	**580,196**	**208,449**
Attributable to					
Shareholders		537,019	195,658	579,562	209,498
Non-controlling interest		587	−980	634	−1,049
		537,606	**194,678**	**580,196**	**208,449**

The notes are an integral part of these consolidated financial statements.

Consolidated statement of changes in equity

All amounts in EUR thousands	Share capital	Other reserves	Retained earnings	Capital and reserves attributable to shareholders	Non-controlling interest	Equity
Balance at 31 Dec 2019	**14,842**	**82,914**	**2,178,356**	**2,276,112**	**9,560**	**2,285,672**
Net profit for the period			255,026	255,026	−172	254,854
Change in non-controlling interest			−1,265	−1,265	−3,012	−4,277
Dividend payments			−50,955	−50,955		−50,955
Currency translation differences		−47,971	4	−47,967	−808	−48,775
Actuarial gains and losses		−11,401		−11,401		−11,401
Balance at 31 Dec 2020	**14,842**	**23,542**	**2,381,166**	**2,419,550**	**5,568**	**2,425,118**
Net profit for the period			356,410	356,410	385	356,795
Change in non-controlling interest			−29	−29	1,379	1,350
Dividend payments			−48,109	−48,109	−75	−48,184
Currency translation differences		114,824	3	114,827	202	115,029
Actuarial gains and losses		65,782		65,782		65,782
Balance at 31 Dec 2021	**14,842**	**204,148**	**2,689,441**	**2,908,431**	**7,459**	**2,915,890**

The share capital is fully paid and composed of 2.2 million registered shares with a par value of 10.00 CHF per share.
During the business year 2021 dividends of 23.60 CHF per ordinary share have been paid (in total 51.92 CHF millions or 48.10 EUR millions).
The notes are an integral part of these consolidated financial statements.

Consolidated cash flow statement

All amounts in EUR thousands	Notes	2021	2020
Cash flow from operating activities			
Net income		356,795	254,854
Depreciation and amortization	11, 12	139,818	148,949
Income taxes	21	106,980	82,713
Result from associated companies	13	2,109	0
Net financial result net of foreign exchange gains (+) / losses (–)		–33,240	–7,249
Result on sale of assets and investments		–3,758	1,714
Change in provisions		64,643	–16,336
Other non-cash items		25,358	17,200
Change in inventories, trade accounts receivable and other current assets		–215,110	24,752
Change in trade payables und other liabilities		22,977	18,371
Income taxes paid		–91,898	–85,585
Cash flow from operating activities		**374,674**	**439,383**
Cash used in investing activities			
Purchase of fixed assets		–172,368	–181,081
Investments in associated companies		–36,000	0
Investments in financial assets		–186,689	–238,542
Disposals of fixed assets		12,883	5,244
Disposal of subsidiaries net of cash disposed		389	–113
Disposals of financial assets		72,202	119,731
Interest received		3,004	1,526
Cash used in investing activities		**–306,579**	**–293,235**
Free cash flow		68,095	146,148
Cash flow from financing activities			
Acquisition of non-controlling interests		–150	–4,277
Dividends paid		–48,184	–50,955
Proceeds from loans		13,590	5,899
Repayments of loans		–2,595	–21,796
Interest paid		–1,704	–1,810
Payments for the principal portion of lease liabilities		–24,855	–23,491
Cash flow from financing activities		**–63,898**	**–96,430**
Effects of exchange rate changes on cash and cash equivalents		**20,922**	**–14,428**
Changes in cash and cash equivalents		**25,119**	**35,290**
Cash and cash equivalents at beginning of year		456,630	421,340
Cash and cash equivalents at end of year		481,749	456,630

The notes are an integral part of these consolidated financial statements.

Notes to the consolidated financial statements

This financial report is a translation from the original German version. In case of any inconsistency the German version shall prevail.

1. General information

The Endress+Hauser Group (the Group) is a global leader in measurement instrumentation, services and solutions for industrial process engineering.

The parent company of the Group is Endress+Hauser AG (the company), which is a stock company and is incorporated and domiciled in Reinach, Switzerland.

2. Accounting policies

2.1 Accounting standards

The consolidated financial statements of the Endress+Hauser Group are prepared in accordance with International Financial Reporting Standards (IFRS). As the Company is not publicly listed, the Group is not required to publish segment reporting.

The Group has adopted all standards and interpretations applicable as per 31 December 2021. The adjustments from the Interest Rate Benchmark Reform (IBOR reform) are not relevant for the Group. There are no IFRSs or IFRIC interpretations that are effective for the first time for the financial year 2021 that have a material impact on the net assets, financial position and earnings performance of the Group.

No major impact is expected from application of other changed or new standards or interpretations that will apply in future on the net assets, financial position and earnings performance or cash flow statement. The Group has not early adopted any amendment or new standard or interpretation.

On 14 March 2022 the Supervisory Board recommended these consolidated financial statements for approval by the Annual General Meeting.

2.2 Principles and method of consolidation

Subsidiaries Subsidiaries are all companies over which the Group has control. Subsidiaries are fully consolidated from the date on which control is transferred to the Group and deconsolidated from the date that control ceases. Newly acquired companies are accounted for using the acquisition method as at the acquisition date, which is the date on which control is transferred to the Group. The cost of an acquisition is measured at the fair value of the assets and liabilities acquired. Acquisition-related costs are expensed as incurred. Identifiable assets, liabilities and contingent liabilities are measured initially at their fair values at the acquisition date, irrespective of the extent of any non-controlling interest. The excess of the cost of acquisition over the fair value of the Group's share of the identifiable net assets acquired is recorded as goodwill.

The financial statements of the companies included in the consolidation have been prepared using the historical cost convention, with the exception of financial assets and financial liabilities (including derivative instruments), and applying uniform presentation and valuation principles. The financial statements of the subsidiaries and the Company are prepared as of the same reporting date. Financial assets and financial liabilities (including derivative instruments) have been recorded at fair value.

Intercompany liabilities, assets, revenues and expenses within the Group and all intercompany profits are eliminated.

Non-controlling interests of third parties are shown separately in the balance sheet, income statement and statement of comprehensive income.

Associated companies Associates are all entities over which the Group has significant influence but not control. Investments in associated companies and joint ventures are accounted for using the equity method. These investments are initially recognized at cost. When the Group's share of losses in an associated company equals or exceeds its interest in the associated company, the Group does not recognize further losses, unless the Group has incurred obligations or made payments on behalf of the associated company.

Other investments are reported as long-term financial assets.

2.3 Recognition of income and expenses

Revenues for goods and services are recognized in line with the requirements of IFRS 15 "Revenues from Contracts with Customers", based on the consideration the Group expects to receive in exchange for the products or services. Revenue from sales of products is recognized in the income statement when control has been transferred to the buyer, which is usually upon delivery, at a fixed price, and when collectability is reasonably assured. Delivery is defined based on the terms of the sale contract. Revenue from services is recognized when the respective services have been rendered. The regular case for solutions projects is that the products and services can be treated as separate performance obligations and the revenue is recognized at a point in time. Only as exception the obligation is satisfied over time and the revenue recognized according to the stage of completion. Revenue is reported net of sales taxes, returns, discounts and rebates. Rebates to customers are recognized in the same period that the related sales are recorded based on the contract terms.

Advance payments received on customer contracts are recorded as contract liabilities and presented as part of other short-term liabilities. Liabilities from advance payments are released and revenues associated with such advance payment transactions are recognized upon delivery and transfer of title, ownership, and risk of loss of the related products to the customer. Rebates and discounts granted to customers are classified as a reduction of revenue.

Interest income and interest expense is recognized on a time proportion basis. Dividend income is recognized when the right to receive payment is established.

Dividend distributions to the company's shareholders are recorded in the Group's financial statement in the period in which the dividends are approved by the company's shareholders.

2.4 Foreign currency translation

Presentation currency The consolidated financial statements are presented in euros. This currency has been selected due to the fact that the majority of the Group's assets, liabilities, revenues and expenses are denominated in this currency.

For the convenience of the reader the consolidated income statement, comprehensive income and balance sheet are also presented in Swiss francs. The calculation is simplified based on consolidated Euro values using the relevant closing and average rates.

Transactions and balances Foreign currency transactions are translated into the presentation currency using the exchange rates prevailing at the dates of the transactions. Foreign exchange gains and losses resulting from the settlement of such transactions and from the translation of monetary assets and liabilities denominated in foreign currencies are recognized in the income statement.

Group companies The Group subsidiaries present their financial statements in local currency. Conversion of the profit and loss accounts into the Group presentation currency is done at the average annual rates, while the balance sheet is converted at the closing rate at the date of that balance sheet.

All resulting exchange differences are recognized as a separate component of equity.

On consolidation, exchange differences arising from the translation of the net investment in foreign entities are taken to shareholder's equity. When a foreign entity is sold, exchange differences that were recorded in equity are recognized in the income statement as part of the gain or loss on sale.

Goodwill and fair value adjustments arising from the acquisition of a foreign entity are treated as assets and liabilities of the reporting entity and translated at the closing rate.

Consolidated comprehensive income In addition to the income statement, the comprehensive income comprises results recognized directly in equity, i.e. without affecting profit or loss. Relevant for the Group are actuarial gains or losses from defined benefit plans and currency differences from the translation of the financial statements of foreign subsidiaries. The translation differences result from the difference between historical exchange rates and closing rates on investments and equity in foreign currencies; there are no related tax effects.

2.5 Tangible fixed assets

Property, plant and equipment is valued at historical acquisition or production costs, less accumulated depreciation calculated on a straight-line basis over the useful life of the asset. Subsequent expenses that enhance the economic benefits associated with the item are capitalized. Land is reported at cost.

The estimated useful life to determine straight-line depreciation is as follows:

Land, assets under construction	none
Buildings (light constructions)	10–20 years
Buildings (massive constructions)	25–40 years
Plant, equipment and machinery	7–15 years
Production tools and other equipment	3–7 years
Office equipment and furniture	8–10 years
IT equipment (hardware)	3–5 years
Motor vehicles	4–6 years

Gains or losses on disposals are determined by comparing proceeds with book values and are included in operating profit. Interest costs on borrowings to finance the construction of property, plant and equipment are expensed in the period in which they are incurred if they are not directly attributable.

The property, plant and equipment financed by finance lease agreements are depreciated over the shorter of the duration of the lease agreement and its duration in use.

2.6 Intangible assets

Goodwill Goodwill on acquisitions of subsidiaries is included in intangible assets. Goodwill is tested annually for impairment and carried at cost less accumulated impairment losses. The calculation of gains and losses on the disposal of an entity is based on the carrying amount of goodwill relating to the entity sold.

Research and development costs Research expenditure is recognized as an expense as incurred. Since the extent and timing of future economic benefits of development projects is difficult to assess, development costs are regularly recognized as expenses as incurred.

Other intangible assets Costs associated with developing or maintaining computer software programmes are recognized as an expense as incurred. Expenditure to acquire patents, trademarks and licences is capitalized. Intangible assets are amortized using the straight-line method over the following useful lives:

Concessions, rights and licences	3–15 years
Computer software	3–5 years
Technology and other intangible assets	3–15 years

2.7 Impairment of assets

Assets that have an indefinite useful life are not subject to depreciation or amortization and are tested annually for impairment. Assets that are subject to depreciation or amortization are reviewed for impairment whenever an indication is given. Where the book value of an asset is greater than its estimated recoverable amount, it is written down immediately to its recoverable amount.

2.8 Financial assets

Financial assets are classified into the following categories: Financial assets at fair value through profit or loss and financial assets at amortised cost.

A financial asset is classified in the category “at fair value through profit or loss” if the criteria for classification “at amortised cost” are not fulfilled. Investments in equity instruments are measured at fair value. The possibility to present subsequent changes in fair value in other comprehensive income is not applied. Investments in debt instruments are classified on the basis of the business model as determined by Group management. The majority of these instruments are held and managed on the basis of fair value considerations and therefore measured at fair value. Derivatives are also measured at fair value through profit or loss. Regular purchase and sales of financial assets are recognized on the trade-date, the date on which the Group commits to purchase or sell the asset. Profits and losses arising from changes in market value are recorded in the net financial result.

2.9 Derivative financial instruments

Due to its international activities, the Endress+Hauser Group is particularly exposed to changes in interest and exchange rates. The companies of the Endress+Hauser Group use derivative financial instruments to limit these risks. The Endress+Hauser Group uses forward exchange contracts to hedge existing underlying transactions. On the interest rate side, risks are limited by interest rate derivatives in the form of interest rate options and interest rate swaps, with interest rate swaps being used specifically to reduce the interest rate risk from liabilities originally subject to variable interest rates. Derivatives are valued at market value. Changes in the market value are taken to the income statement (see note 26). Hedge accounting is not applied.

2.10 Leasing agreements

As a lessee the Group leases certain tangible fixed assets like land, buildings, offices, vehicles, machinery and IT equipment. Under the accounting model of IFRS 16, all leases are generally recognised in the balance sheet. The Right-of-use Asset, which represents the right to use the underlying asset, and the liability from the lease, which represents the obligation to make lease payments, are recognized.

The Group has made use of the practical expedients not to capitalize short-term leases with a term of less than 12 months and leases of low-value assets (less than EUR 5,000) as rights-of-use. These contractual relationships are recognized as expenses on a straight-line basis over the term of the lease. The Group has also decided not to treat software licenses under IFRS 16 as all other intangible assets.

A contract is classified as a lease under IFRS 16 if the Group has the right to obtain economic benefits from the use of an identified asset and has the right to decide whether to use the asset alone. Rights-of-use are recognized at cost and amortized on a straight-line basis over the lease term using the cost model or over the expected useful life if a purchase option exists. For the latter, the same depreciation periods are used as for purchased property, plant and equipment. The costs for the right of use consist of the present value of the leasing liability, the direct costs and the future dismantling costs. In addition, where necessary, rights of use are subject to extraordinary depreciation (impairment) and the lease liability is adjusted for certain revaluations. Lease and non-lease components of an agreement are not accounted for separately, but are treated as one lease. The exception here is non-leasing components for rentals and buildings (in particular ancillary costs). These are recognized separately as expenses on a straight-line basis over the term of the lease.

The lease liability is measured at the present value of the lease payments. The lease payments are discounted at the interest rate on which the lease is based, if this can be easily determined. Otherwise, the marginal borrowing rate is normally applied, which is centrally determined by the Group according to countries and currencies.

The option for simplified accounting for certain corona-related changes to leasing contracts was not exercised.

The Group does not have any material leases as lessor.

2.11 Inventories
Inventories are stated at the lower of cost and net realizable value. The cost of purchased inventory is determined using the weighted average cost method. The cost of finished goods and work in progress comprises raw materials, direct labor, other direct costs and related production overheads (based on normal operating capacity) but excludes borrowing costs. Net realizable value is the estimated selling price in the ordinary course of business, less the costs of completion and selling expenses. The value adjustments are calculated on a line-by-line basis using the stock reach criterion and take also slow-moving items and specific cases into consideration.

2.12 Trade accounts receivables, income tax receivables and other receivables
Trade receivables are valuated and recognized in the balance sheet at original invoice amount, which equals their fair value. Provisions for impairment of these receivables have been made for doubtful and overdue debts. The amount of the expected loss is recognized in the income statement within other operating expenses. Other receivables also include other assets (precious metals). Due to an existing regulatory gap in IFRS on the accounting for such precious metals, which are neither held for trading nor for consumption in production, a separate accounting policy has been formed taking into account the IFRS framework. The Group measures precious metals in tangible ownership at fair value and recognizes their change in value in the income statement.

2.13 Cash and cash equivalents
Cash and cash equivalents includes cash in hand, deposits held at call with banks and other short-term highly liquid investments with original maturities of three months or less and are carried at nominal value.

2.14 Trade accounts payable and other liabilities
Trade accounts payable represent liabilities for goods and services purchased in the ordinary course of business. They are presented as current liabilities if payment is due within one year or less than one year. Otherwise they are reported under non-current liabilities.

They are measured at the originally invoiced amount which equals fair value.

2.15 Loans
Loans are initially recognized at fair value, net of transaction costs incurred and are subsequently stated at amortized cost. Any discount, which corresponds to the difference between the proceeds (net of transaction costs) and the redemption amount is amortized over the term of the loan and is recognized in the income statement using the effective interest method. Loans are classified as current liabilities unless the Group has an unconditional right to defer settlement of the liability for at least 12 months after the balance sheet date.

2.16 Provisions
Provisions are recognized when the Group has a present legal or constructive obligation as a result of past events, it is probable that an outflow of resources will be required to settle the obligation, and a reliable estimate of the amount can be made. Provisions are measured at the expected future outflow of resources.

2.17 Current and deferred income tax
Provisions are made for all tax obligations at the balance sheet date, regardless of their payment date.

In addition, provisions are made for deferred taxes at the anticipated local tax rate on the difference between the values in the consolidated balance sheet and the values in the tax balance sheets of the individual companies. Deferred taxes resulting from temporary differences relating to investments in subsidiaries or associated companies are not recognized as the Group can control the timing of the reversal and it is probable that the temporary difference will not reverse in the foreseeable future.

Deferred income tax assets and liabilities are offset when there is a legally enforceable right to set off current tax assets against current tax liabilities and when the deferred income taxes relate to the same fiscal authority.

Tax relevant losses carried forward and temporary differences are capitalized only to the extent that it is likely that sufficient taxable profit will be generated in the future to offset them.

2.18 Employee benefits
The Group operates various post-employment schemes, including both defined benefit and defined contribution pension plans.

Retirement benefit obligations – Defined benefit plans
The liability recognized in the balance sheet in respect of defined benefit pension plans is the present value of the defined benefit obligation at the end of the reporting period less the fair value of plan assets.

The pension obligation under all major defined benefit plans is determined yearly by independent qualified actuaries based on the Projected Unit Credit Method.

The present value of the defined benefit obligation is calculated by discounting the estimated future cash outflows using interest rates for government bonds plus a premium of 0.5 to 2% or for high-quality corporate bonds. The government bonds or corporate bonds are denominated in the currency in which the benefits will be paid and have terms to maturity approximating to the terms of the related pension liability of 15 to 20 years.

Actuarial gains and losses arising from changes in actuarial assumptions and experience adjustments are charged or credited to equity in other comprehensive income in the period they arise. Pension costs from defined benefit plans include service cost, interest expense and past service cost of the current period and are shown separately in note 7 (personnel expenses).

Retirement benefit obligations – Defined contribution plans
Defined contribution plans are saving plans which do not include future benefit commitments. The contributions, which the Group is called upon to pay in respect of a particular period, are recorded as personnel expenses in that period and separately shown in note 7.

Termination benefits Termination benefits are payable when employment is terminated by the Group before the normal retirement date, or whenever an employee accepts voluntary redundancy in exchange for these benefits. The Group recognizes termination benefits at the earlier of the following dates: (a) when the Group can no longer withdraw the offer of those benefits; and (b) when the entity recognizes costs for a restructuring that is within the scope of IAS 37 and involves the payment of termination benefits.

Profit-sharing and bonus plans The Group recognizes a provision for bonuses and profit-sharing where contractually obliged or where there is a past practice that has created a constructive obligation.

3. Management of financial risks

3.1 Financial and exchange risks

In view of the Group's world-wide activities and locations in a variety of countries, the local entities are actively engaged in managing exchange risks. Risk management is concentrated on monitoring and analyzing exchange risks, with the aim of limiting their effects on the Group's results. Risk management is ensured by the central treasury of the Group, which acts in accordance with the directives of the Group's corporate management. The risks are assessed mainly by the local Group companies, whereby the Group's treasury is supporting the units.

The Group uses derivative financial instruments like forex forward contracts, options or interest rate derivatives to hedge exchange and interest rate risks.

Financial instruments, exposed to foreign exchange risks are primarily trade accounts receivable, cash and cash equivalents, financial assets, loans and trade accounts payable. This comprises transactions with third parties and Group-internal transactions. Relevant net foreign currency exposures exist in CHF and USD. Assuming for the purpose of a sensitivity analysis a change of ±5% of these currencies against the euro, this would result in a possible change of the net income of ±3.9 EUR millions (prior year ±2.7 EUR millions).

As the Group is almost debt-free, changes in interest rates have only an insignificant impact on the Group's financial result.

3.2 Credit risks

Credit risk arises from cash and cash equivalents, derivative financial instruments and financial assets, as well as receivables from customers. For banks and financial institutions, only first-class institutions are accepted.

For other business partners, the Group's policy on customer credits specifies that a periodic credit worthiness check is required and performed under the supervision of the controller of the respective Group company. The Group has no significant concentration of credit risks. The maximum exposure is the book value of the receivables.

3.3 Liquidity risks

Group companies maintain a certain amount of cash in order to secure their normal business activities. They can adjust their cash balance by usage or repayment of intercompany loans. The majority of the cash is managed by Corporate Treasury. The amount of deposits on bank accounts (= operational liquidity) considers the thresholds up to which no negative interest or deposit fee is charged. The investment regulations define a minimum operational liquidity. Amounts above these thresholds are generally assigned to strategic liquidity, which is invested in various asset classes (e.g. money market investments, bonds, mortgage funds, shares or precious metals). The Investment Committee decides on the investment of strategic liquidity every six months. Besides the liquid funds the Group can revert to secured credit lines with major international banks. These credit lines can be utilized by the Group or its entities to fund cash loans or trade financing and to secure exchange rate margins.

The forecasted liquidity reserve per 31 December 2022 is as follows (EUR in millions):

Cash and cash equivalents at 31 December 2022	482
Short-term financial assets	485
Not used credit lines	62
Total available liquidity reserve	1,029

Credit lines with banks are unchanged from the previous year.

For details on the remaining terms of the liabilities, please refer to note 19.

3.4 Capital risk management
The Group wants to stay autonomous and independent and strives for a healthy debt to equity ratio, which should exceed the industry average. The strategic objective is an equity capital ratio (equity in relation to total assets) of over 70%.

3.5 Fair value estimation
The following fair value measurement hierarchy levels have been defined for financial instruments carried at fair value:
- Level 1: Valuation based on quoted prices in active markets
- Level 2: Valuation based on quoted prices in inactive markets or according to the discounted cash flow method based on observable market data
- Level 3: Valuation based on unobservable inputs

For details of the Group's assets and liabilities measured at fair value, please refer to notes 14 and 26.

4. Critical accounting estimates and assumptions

When drawing up the consolidated financial statements, the Group makes estimates and takes assumptions concerning the future. The actual values can deviate from the assumptions and estimates. The estimates and assumptions that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year are discussed below.

4.1 Estimated impairment of goodwill
The Group tests annually whether goodwill has suffered any impairment in accordance with the requirements of IAS 36 "Impairment of Assets". The recoverable amounts of all cash generating units are determined based on value-in-use calculations or as exception based on calculation of the fair value less costs of disposal.

4.2 Estimates for the accounting for employee benefits
IAS 19 "Employee Benefits" requires that certain assumptions are made in order to determine the amount to be recorded for retirement benefit obligations and pension plan assets, in particular for defined benefit plans. These are mainly actuarial assumptions such as expected future inflation rates, average life expectancy, expected rates of returns on pension plan assets as well as discount factors. Substantial changes in the assumed development of any of these variables may significantly change the Group's retirement benefit obligation and pension assets.

5. Key figures not defined under IFRS

By stating its free cash flow in the cash flow statement, the Group is reporting an item that is not defined in IFRS but is being widely used and recognized in the financial sector. This key figure is the total cash flow from operating and from investing activities.

Notes to the consolidated financial statements

6. Net sales by region (all amounts in EUR thousands)

	Notes	2021	2020
Europe		1,257,002	1,172,566
Asia-Pacific		896,170	763,264
Americas		623,961	534,095
Africa, Middle East		101,971	106,867
		2,879,104	**2,576,792**
Net sales by products (all amounts in EUR thousands)			
Process instrumentation and automation		2,633,778	2,333,494
Laboratory instrumentation and automation		173,758	162,078
Sensors		71,568	81,220
		2,879,104	**2,576,792**

7. Personnel expenses (all amounts in EUR thousands)

	Notes	2021	2020
Wages and salaries		908,521	827,910
Social securities		143,044	127,006
Pension costs – defined benefit plan	22	12,492	31,085
Pension costs – defined contribution plan		20,508	18,510
Other employee benefit expenses		15,050	14,627
		1,099,615	**1,019,138**
Number of employees by region (at balance sheet date)			
Europe		10,517	10,083
Asia-Pacific		2,568	2,452
Americas		1,766	1,653
Africa, Middle East		266	266
		15,117	**14,454**

8. Other operating expenses (all amounts in EUR thousands)

	Notes	2021	2020
Other personnel related costs		59,326	52,768
Customer related costs		96,112	89,778
IT (EDP) related costs		58,575	52,991
Building maintenance, furniture and fixtures		75,689	71,009
Lease expenses short-term	20	26,261	24,783
Expenses for rights and other services		88,994	78,712
Other operating expenses		22,139	14,449
Non-income taxes		13,581	12,736
Loss from sale of fixed assets		1,237	2,601
		441,914	**399,827**

9. Research and development (all amounts in EUR thousands)

	Notes	2021	2020
Part of total operating expenses is the following expenditure for research and development		213,418	195,116
In % of net sales		**7.4%**	**7.6%**

10. Net financial result (all amounts in EUR thousands)

	Notes	2021	2020
Interest expense – loans		−685	−766
Interest expense – lease liabilities		−1,019	−1,044
Interest expenses		**−1,704**	**−1,810**
Interest income		3,004	1,526
Interest result		**1,300**	**−284**
Various foreign exchange gains (+) / losses (−)		−18,951	−12,642
Foreign exchange gains (+) / losses (−) from derivative financial instruments	26	17,689	5,895
Net foreign exchange gains / losses		**−1,262**	**−6,747**
Result from financial assets (at fair value)		37,008	12,244
Result from derivative financial instruments	26	−5,068	−4,711
Result from financial assets		**31,940**	**7,533**
Net financial result		**31,978**	**502**

Notes to the consolidated financial statements

11. Tangible fixed assets 2021 (all amounts in EUR thousands)

	Land and buildings	Plant, equipment and machinery	Office equipment and furniture	Advance payments & assets under construction	2021 total
Acquisition value					
Value as at 1 Jan 2021	**932,742**	**724,655**	**252,840**	**128,525**	**2,038,762**
Additions	67,575	32,398	29,234	48,829	178,036
Disposals	−10,223	−9,648	−17,373	−3,963	−41,207
Transfers	45,451	30,702	3,612	−80,697	−932
Exchange differences	30,158	19,826	3,879	3,177	57,040
Value as at 31 Dec 2021	**1,065,703**	**797,933**	**272,192**	**95,871**	**2,231,699**
Accumulated depreciation					
Value as at 1 Jan 2021	**−323,468**	**−481,803**	**−172,931**		**−978,202**
Depreciation	−39,286	−52,595	−32,392		−124,273
Impairment	0	−442	0		−442
Disposals	6,687	8,750	16,501		31,938
Transfers	7	527	−35		499
Exchange differences	−9,611	−12,272	−2,845		−24,728
Value as at 31 Dec 2021	**−365,671**	**−537,835**	**−191,702**		**−1,095,208**
Net book value as at 1 Jan 2021	**609,274**	**242,852**	**79,909**	**128,525**	**1,060,560**
Net book value as at 31 Dec 2021	**700,032**	**260,098**	**80,490**	**95,871**	**1,136,491**
Information on leases included above					
Additions to right-of-use assets	10,616	52	9,799		20,467
Depreciation	−10,877	−168	−11,819		−22,864
Net book value of right-of-use assets as at 31 Dec 2021	36,119	218	22,414		58,751
					2021
Fixed assets pledged as security					1,549

11. Tangible fixed assets 2020 (all amounts in EUR thousands)

	Land and buildings	Plant, equipment and machinery	Office equipment and furniture	Advance payments & assets under construction	2020 total
Acquisition value					
Value as at 1 Jan 2020	**861,470**	**690,575**	**232,709**	**133,602**	**1,918,356**
Additions	42,862	40,777	35,037	74,959	193,635
Disposals	−8,790	−15,624	−11,128	−560	−36,102
Transfers	54,638	20,037	1,691	−78,127	−1,761
Exchange differences	−17,438	−11,110	−5,469	−1,349	−35,366
Value as at 31 Dec 2020	**932,742**	**724,655**	**252,840**	**128,525**	**2,038,762**
Accumulated depreciation					
Value as at 1 Jan 2020	**−292,695**	**−453,882**	**−155,969**		**−902,546**
Depreciation	−41,937	−48,682	−30,963		−121,582
Disposals	6,215	13,559	10,449		30,223
Transfers	493	5	28		526
Exchange differences	4,456	7,197	3,524		15,177
Value as at 31 Dec 2020	**−323,468**	**−481,803**	**−172,931**		**−978,202**
Net book value as at 1 Jan 2020	**568,775**	**236,693**	**76,740**	**133,602**	**1,015,810**
Net book value as at 31 Dec 2020	**609,274**	**242,852**	**79,909**	**128,525**	**1,060,560**
Information on leases included above					
Additions to right-of-use assets	8,878	81	16,148		25,107
Depreciation	−12,528	−160	−11,107		−23,795
Net book value of right-of-use assets as at 31 Dec 2020	47,603	360	24,720		72,683

					2020
Fixed assets pledged as security					1,534

Notes to the consolidated financial statements

12. Intangible assets 2021 (all amounts in EUR thousands)

	Goodwill	Concessions, rights and licences	IT software	Technology and other intangible assets	2021 total
Acquisition value					
Value as at 1 Jan 2021	**109,904**	**57,729**	**112,381**	**39,220**	**319,234**
Additions	0	1,587	9,374	3,850	14,811
Disposals	0	–851	–3,285	–1,809	–5,945
Transfers	0	0	2,248	–1,818	430
Exchange differences	4,152	2,782	1,370	1,085	9,389
Value as at 31 Dec 2021	**114,056**	**61,247**	**122,088**	**40,528**	**337,919**
Accumulated amortization					
Value as at 1 Jan 2021	**–30,160**	**–42,209**	**–85,778**	**–26,423**	**–184,570**
Amortization	0	–2,519	–9,923	–2,270	–14,712
Impairment	0	–391	0	0	–391
Disposals	0	851	3,285	1,787	5,923
Transfers	0	0	3	0	3
Exchange differences	–732	–2,096	–972	–902	–4,702
Value as at 31 Dec 2021	**–30,892**	**–46,365**	**–93,385**	**–27,808**	**–198,449**
Net book value as at 1 Jan 2021	**79,744**	**15,520**	**26,603**	**12,797**	**134,664**
Net book value as at 31 Dec 2021	**83,164**	**14,882**	**28,703**	**12,720**	**139,470**

Impairment tests for goodwill
Goodwill is allocated to the Group's cash-generating units (CGUs) identified according to reporting entities (group companies or sub-groups). The recoverable amount of a CGU is determined based on value-in-use calculations. These calculations use pre-tax cash flow projections over a four-year period and do not result in any impairment charge.

The significant assumptions regarding goodwill were as follows:

Sub-groups	Goodwill in EUR thousands	Goodwill from year	WACC	Long-term sales growth rate	Average return on sales
Endress+Hauser Optical Analysis Inc.	19,322	2012/2013	6.2%	2.0%	–2.6%
Subgroup Analytik Jena GmbH	18,822	2013/2014	6.2%	2.0%	2.7%

SpectraSensors Inc. and Kaiser Optical Systems Inc. will be merged into Endress+Hauser Optical Analysis Inc. as of 1 January 2022. Therefore, they are now considered as one CGU and a joint impairment test has been performed.

12. Intangible assets 2020 (all amounts in EUR thousands)

	Goodwill	Concessions, rights and licences	IT software	Technology and other intangible assets	2020 total
Acquisition value					
Value as at 1 Jan 2020	**115,580**	**61,104**	**104,283**	**50,246**	**331,213**
Additions	0	2	7,717	4,595	12,314
Disposals	−754	−328	−939	−13,501	−15,522
Transfers	0	0	1,807	−630	1,177
Exchange differences	−4,922	−3,049	−487	−1,490	−9,948
Value as at 31 Dec 2020	**109,904**	**57,729**	**112,381**	**39,220**	**319,234**
Accumulated amortization					
Value as at 1 Jan 2020	**−22,694**	**−41,538**	**−78,121**	**−32,951**	**−175,304**
Amortization	0	−3,126	−9,044	−6,187	−18,357
Impairment	−8,993	0	0	−17	−9,010
Disposals	754	328	922	11,715	13,719
Transfers	0	0	0	58	58
Exchange differences	773	2,127	465	959	4,324
Value as at 31 Dec 2020	**−30,160**	**−42,209**	**−85,778**	**−26,423**	**−184,570**
Net book value as at 1 Jan 2020	**92,886**	**19,566**	**26,162**	**17,295**	**155,909**
Net book value as at 31 Dec 2020	**79,744**	**15,520**	**26,603**	**12,797**	**134,664**

Impairment tests for goodwill
Goodwill is allocated to the Group's cash-generating units (CGUs) identified according to reporting entities (group companies or sub-groups). The recoverable amount of a CGU is determined based on value-in-use calculations. These calculations use pre-tax cash flow projections over a four-year period and did result in an impairment charge of 8,993 EUR thousands.

The significant assumptions regarding goodwill were as follows:

Sub-groups	Goodwill in EUR thousands	Goodwill from year	WACC	Long-term sales growth rate	Average return on sales
Subgroup Analytik Jena GmbH	18,656	2013/2014	6.4%	2.0%	3.0%
SpectraSensors Inc.	10,925	2012	6.4%	2.0%	1.4%
Kaiser Optical Systems Inc.	7,059	2013	6.4%	2.0%	8.4%

Notes to the consolidated financial statements

13. Investments in associated companies (all amounts in EUR thousands)

	Notes	2021	2020
Change in investments in associated companies:			
Value as at 1 Jan		**0**	**0**
Additions		36,000	0
Group's share of profit		–2,206	0
Exchange differences		227	0
Value as at 31 Dec		**34,021**	**0**

Joint ventures are accounted for using the equity method and listed under investments in associates (see scope of consolidation in note 33).

Endress+Hauser and ifm have established a joint venture early 2021. Under the brand Automation24, they operate a multi-vendor online sales platform for automation products. The new platform will also be open to other companies for participation.

The summarised financial information for associated companies are as follows:		2021	2020
– Non-current assets		723	9
– Current assets		24,637	381
– Non-current liabilities		146	137
– Current liabilities		2,489	253
– Net sales		20,819	433

14. Financial assets (all amounts in EUR thousands)

	Notes	2021	2020
Long-term financial assets (at fair value)		269,795	167,246
Long-term investments in non-consolidated companies		3	695
Long-term loans to third parties (amortised cost)		1,527	4,230
Long-term financial assets (amortised cost)		745	718
Total long-term financial assets		**272,070**	**172,889**
Short-term financial assets (at fair value)		338,826	242,283
Short-term financial assets (amortised cost)		46,015	69,307
Short-term loans to third parties (amortised cost)		0	28
Derivative financial instruments – assets	26	13,632	3,879
Total short-term financial assets		**398,473**	**315,497**
Total financial assets		**670,543**	**488,386**
The financial assets (at fair value) are included in the fair value hierarchy levels as follows:	3.5		
Level 1		338,837	242,294
Level 2		282,789	170,492
Level 3		627	622
Total financial assets (at fair value)		**622,253**	**413,408**

Long-term financial assets (at fair value) mainly include a real estate fund.
Fair value level 1 mainly contains short-term financial assets (at fair value) such as share funds and bonds with quoted marked prices.
Fair value level 2 mainly contains the above-mentioned long-term financial assets (at fair value) as well as derivative financial instruments.

15. Inventories (all amounts in EUR thousands)

	Notes	2021	2020
Raw materials and supplies		179,180	136,463
Work in progress and semi-finished goods		141,132	112,116
Finished goods and merchandise		132,979	106,549
Advance payments for inventory		4,169	2,339
		457,460	**357,467**
As in the previous year, no inventories were pledged as security for borrowings.			
Change in stock provision based on the stock-reach analysis:			
Value as at 1 Jan		**−56,792**	**−54,394**
Additions (via income statement)		−9,293	−7,098
Amounts used		4,101	3,257
Reversal (via income statement)		2,505	449
Exchange differences		−1,438	994
Value as at 31 Dec		**−60,917**	**−56,792**

Notes to the consolidated financial statements

16. Trade accounts receivable (all amounts in EUR thousands)

	Notes	2021	2020
Trade accounts receivable from third parties		540,766	467,640
Trade accounts receivable – associated companies	29	164	0
Bad debt valuation allowance		–18,946	–17,169
Total trade accounts receivable		**521,984**	**450,471**
Movements on the provision for impairment of trade receivables:			
Value as at 1 Jan		**–17,169**	**–17,263**
Provision for receivables impairment		–5,906	–4,934
Utilization of provision for receivables written off		2,878	714
Reversal of unused provision		1,840	3,498
Exchange differences		–589	816
Value as at 31 Dec		**–18,946**	**–17,169**
At reporting date provisions for doubtful and overdue debts have been made. The aging analysis of the receivables is as follows:			
Aging analysis			
Not due or overdue under 2 months		477,117	422,176
2 to 6 months overdue		30,234	21,226
6 to 12 months overdue		12,587	7,097
Over 12 months overdue		20,992	17,141
Total trade accounts receivable – gross		**540,930**	**467,640**
Trade accounts receivable include amounts denominated in the following major currencies:			
Functional currencies of subsidiaries		465,215	409,878
Euro		44,876	37,124
US dollar		29,751	19,331
Other currencies		1,088	1,307
Total trade accounts receivable – gross		**540,930**	**467,640**

17. Other accounts receivable (all amounts in EUR thousands)

	Notes	2021	2020
Other tax receivables		35,681	30,836
Accounts receivable from social benefits institutions		424	696
Accounts receivable from employees		971	1,009
Other accounts receivable from third parties		18,427	15,300
Other assets (precious metals)		41,179	0
Contract assets (IFRS 15)	25	13,450	9,612
Prepayments and accruals		30,674	23,112
		140,806	**80,565**

Other receivables do not contain impaired assets.

18. Cash and cash equivalents (all amounts in EUR thousands)

	Notes	2021	2020
Cash and cash deposits		470,234	448,410
Short-term interest bearing deposits		11,515	8,220
		481,749	**456,630**

19. Loans and other liabilities with residual maturity (all amounts in EUR thousands)

	Notes	2021	2020
The carrying amounts of loans are as follows:			
Long-term loans from banks		1,241	962
Long-term loans from third parties		1,099	629
Long-term lease liabilities	20	34,643	37,328
Total long-term loans		**36,983**	**38,919**
Short-term loans from banks		95	1,392
Short-term loans from third parties		20,850	17,044
Short-term loans from other affiliated companies	29	8,400	0
Short-term lease liabilities	20	18,673	19,517
Total short-term loans		**48,018**	**37,953**
Total loans		**85,001**	**76,872**
Changes in liabilities arising from financing activities are as follows:			
Total loans as at 1 Jan		**76,872**	**91,249**
Financing cash flows		−13,860	−39,388
New leases		20,467	25,107
Exchange differences		1,369	−1,667
Other changes		153	1,571
Total loans as at 31 Dec		**85,001**	**76,872**
Trade accounts payable to third parties		116,047	95,607
Trade accounts payable to associated companies	29	39	0
Short-term notes payable to third parties		0	590
Trade accounts and notes payable		**116,086**	**96,197**
Other liabilities with residual maturity	24	**81,700**	**73,668**
Breakdown by maturity			
Under 1 year		245,571	207,525
1 to 5 years		35,211	37,620
Over 5 years		2,005	1,592
Total liabilities with residual maturity		**282,787**	**246,737**

Bank loans are mainly secured by the land and buildings of the Group (see note 11).

All loans are in functional currencies of subsidiaries. The fair value of the loans equal their carrying amount, as the impact of discounting is not significant.

20. Leasing (all amounts in EUR thousands)

	Notes	2021	2020
As a lessee the Group has recognized the following amounts in the balance sheet:			
Net book value of right-of-use assets	11	**58,751**	**72,683**
Short-term lease liabilities		18,673	19,517
Long-term lease liabilities 1 to 5 years		32,895	36,057
Long-term lease liabilities over 5 years		1,748	1,271
Present value of lease liabilities	19	**53,316**	**56,845**
The income statement shows the following amounts relating to leases:			
Depreciation	11	22,864	23,795
Interest expense – lease liabilities	10	1,019	1,044
Lease expenses short-term	8	11,414	10,667
Lease expenses low-value leases	8	2,346	2,832
Expenses for additional charges for lease contracts	8	12,501	11,284
Total cash outflows for leases		52,345	49,532

The Group does not generate any income from subleasing right-of-use assets and no gains or losses from sale and leaseback transactions.

There are no significant cash outflows that have not been taken into account in the measurement of lease liabilities.

The Group's right-of-use assets shown in the balance sheet are spread over a large number of different contracts. The leasing agreements are concluded directly by the respective Group companies in accordance with local laws, rules and customs. The majority of lease payments are fixed but include index-linked rents. The restrictions and undertakings on the right-of-use assets are customary conditions in the industry.

21. Income taxes (all amounts in EUR thousands)

	Notes	2021	2020
Income tax expenses			
Current income tax charge		125,348	78,394
Deferred income tax charge (+) / benefit (–)		–18,368	4,319
Total charge for income taxes		**106,980**	**82,713**
Analysis of tax rate			
The income tax expense on the consolidated profit before taxes differs from the expected tax rate (the weighted average of the local tax rates of the Group companies) as follows:			
Average expected tax rate		**23.0%**	**23.0%**
Tax effect of			
– Different tax rates in other countries		–0.7%	–0.3%
– Changes in tax rates		0.0%	0.4%
– Additional tax (+) or tax refunds (–) from previous years		2.2%	0.1%
– Income not subject to tax		–2.1%	–0.4%
– Expenses not deductible for tax purposes or reduced rate		1.9%	2.0%
– Current year change in unrecognized tax losses		–1.1%	–0.2%
– Other items		–0.1%	–0.1%
Effective tax rate		**23.1%**	**24.5%**
Changes in deferred taxes (assets and liabilities) recorded in the balance sheet:			
Balance as at 1 Jan		**58,274**	**60,049**
Income statement charge / credit		18,368	–4,319
Tax debited (–) / credited (+) to equity		–17,475	3,486
Exchange differences		–965	–942
Net balance as at 31 Dec		**58,202**	**58,274**
Tax losses on which no deferred tax was calculated			
Expiry			
– Within 5 years		14,260	18,609
– Within 6 to 10 years		16,640	24,100
– Over 10 years		41,013	38,699
Unrecognized tax losses as at 31 Dec		**71,913**	**81,408**

21. Income taxes (all amounts in EUR thousands)

	Notes	2021	2020
Source of deferred tax			
Deferred tax assets and liabilities relate to the following items on the consolidated balance sheet:			
Tangible fixed assets		−38,492	−38,877
Intangible assets		15,272	6,188
Capitalized tax losses		28,996	32,535
Inventories		15,184	12,659
Other assets		−6,084	−3,253
Employee benefit liabilities		24,686	43,205
Loans		11,141	10,552
Other liabilities		7,499	−4,735
Net deferred tax balance recognized as at 31 Dec		**58,202**	**58,274**

The partial outsourcing of the German pension scheme done in 2019 results in tax losses that have to be shown off balance sheet and that are part of capitalized tax losses.

22. Retirement benefit obligations (all amounts in EUR thousands)

	Notes	2021	2020
The defined benefit obligations are composed of as follows:			
Group companies in Germany		95,684	129,380
Group companies in Switzerland		−6,472	49,472
Defined benefit obligations recognized in the balance sheet		**89,212**	**178,852**
Defined benefit obligations – Group companies in Germany			
The defined benefit obligations of the Group companies in Germany refer particularly to the pension scheme of 1993 and individual obligations to directors and senior staff. The pension scheme provides benefits to employees of the Group in the form of a guaranteed level of pension payable for life, depending on the final salary. Effective 1 August 2019, the transferable parts of the pension scheme of 1993 were transferred to Allianz Pensionsfonds AG, Stuttgart, and deducted from the defined benefit obligation in the balance sheet. Due to the obligation to make additional contributions, as set out in the agreement with Allianz, full derecognition of the corresponding pension liabilities is not permitted according to IAS 19.			
The obligations are as follows:			
Present value of obligations		336,767	359,437
Fair value of plan assets		−241,083	−230,057
Defined benefit obligations recognized in the balance sheet		**95,684**	**129,380**

22. Retirement benefit obligations (all amounts in EUR thousands)

	Notes	2021	2020
Movement in the defined benefit obligation			
Value as at 1 Jan		**359,437**	**343,900**
Current service cost		6,493	6,630
Interest cost		1,780	3,065
Total defined benefit plan costs, included in personnel expenses	7	**8,273**	**9,695**
Remeasurement resulting from actuarial gains (–) / losses (+) recognized in year from			
Change in financial assumptions		–24,077	19,706
Change in experience adjustments		2,475	–4,492
Total Remeasurement, included in other comprehensive income		**–21,602**	**15,214**
Benefits paid		–9,341	–9,372
Value as at 31 Dec		**336,767**	**359,437**
Movement in the fair value of the plan assets			
Value as at 1 Jan		**230,057**	**231,530**
Interest income		1,135	2,070
Total defined benefit plan costs, included in personnel expenses	7	**1,135**	**2,070**
Remeasurement: return on plan assets		18,169	5,065
Total remeasurement, included in other comprehensive income		**18,169**	**5,065**
Benefits paid		–8,278	–8,608
Value as at 31 Dec		**241,083**	**230,057**

Plan assets contain investments with quoted market prices (thereof 53.1% bonds and 30.4% shares), 15.6% real estate and 0.9% investments without quoted market price (cash and pledged liability insurances).

The significant actuarial assumptions (weighted averages) were as follows:		2021	2020
Discount rate		1.00%	0.50%
Future salary increase		2.30%	2.00%
Future pension increase		1.70%	1.60%

Sensitivity analysis
Changes in the weighted principal assumptions have the following impact on the defined benefit obligation:

		2021	
		Impact on defined benefit obligation	
		Increase in assumption	Decrease in assumption
Discount rate: change in assumption by 0.1%		–1.9%	+1.9%
Future salary increase: change in assumption by 0.1%		+0.4%	–0.4%
Future pension increase: change in assumption by 0.1%		+1.5%	–1.5%
Life expectancy: change in assumption by +1 year		+3.8%	

The weighted average duration of the defined benefit obligation is 18.9 years.

Notes to the consolidated financial statements

22. Retirement benefit obligations (all amounts in EUR thousands)

	Notes	2021	2020
Defined benefit obligations – Group companies in Switzerland			
Retirement benefit obligations in Switzerland compound of plans regulated by the Federal Law on Occupational Old-Age, Survivors' and Disability Insurance (BVG). The pension plans of the Group are managed by a reputable insurance company and are financed by regular employee and employer contributions. The final pension benefits are dependent on contributions and involve specified minimum guarantees.			
The obligations are as follows:			
Present value of obligations		499,325	502,272
Fair value of plan assets		−505,797	−452,800
Asset surplus / defined benefit obligations recognized in the balance sheet		**−6,472**	**49,472**
Movement in the defined benefit obligation			
Value as at 1 Jan		**502,272**	**466,908**
Current service cost		23,626	23,334
Past service cost		−18,346	0
Interest cost		755	1,420
Total defined benefit plan costs, included in personnel expenses	7	**6,035**	**24,754**
Remeasurement resulting from actuarial gains (−) / losses (+) recognized in year from			
Change in financial assumptions		−11,763	11,906
Change in experience adjustments		9,493	2,504
Change in demografic assumptions		−22,715	0
Total Remeasurement, included in other comprehensive income		**−24,985**	**14,410**
Contributions by plan participants		24,616	26,448
Benefits paid		−29,103	−31,624
Exchange differences		20,490	1,376
Value as at 31 Dec		**499,325**	**502,272**
Movement in the fair value of the plan assets			
Value as at 1 Jan		**452,800**	**425,396**
Interest income		681	1,294
Total defined benefit plan costs, included in personnel expenses	7	**681**	**1,294**
Remeasurement: return on plan assets		18,501	9,672
Total remeasurement, included in other comprehensive income		**18,501**	**9,672**
Contributions by plan participants		24,616	26,448
Employer contributions		17,663	20,312
Benefits paid		−29,103	−31,624
Exchange differences		20,639	1,302
Value as at 31 Dec		**505,797**	**452,800**

22. Retirement benefit obligations (all amounts in EUR thousands)

	Notes	2021	2020
Assets of the old-age and surviving dependants' pensions correspond to the present value of the related obligations as follows:		76,477	68,813
The difference to assets from insurance contracts is:		2,854	8,245

Plan assets contain 13.7% securities with quoted market prices and 86.3% investments without quoted market price (insurance contracts, loans and real estate).

Due to the existing employer contribution reserves an economic benefit is given, and therefore the asset surplus can be presented as an asset.

The past service cost result form the adjustment of the mandatory and extra-mandatory conversion factor.

The changes in the demographic assumptions for mortality, disability and turnover rate result from the changeover to BVG 2020 (previous year BVG 2015).

The significant actuarial assumptions (weighted averages) were as follows:	Notes	2021	2020
Discount rate		0.35%	0.15%
Future salary increase		1.00%	1.00%
Future pension increase		0.00%	0.00%

Sensitivity analysis
Changes in the principal actuarial assumptions have the following impact on the defined benefit obligation:

		2021	
		Impact on defined benefit obligation	
		Increase in assumption	Decrease in assumption
Discount rate: change in assumption by 0.1%		−1.5%	+1.7%
Future salary increase: change in assumption by 0.1%		+0.1%	−0.1%
Life expectancy: change in assumption by 1 year		+2.0%	−2.0%

The weighted average duration of the defined benefit obligation is 15.4 years.

23. Provisions (all amounts in EUR thousands)

	Other employee benefit obligations	Warranty provisions	Provisions for legal claims	Other provisions	2021 total	2020 total
Long-term provisions						
Value as at 1 Jan	**40,358**	**1,514**	**461**	**1,586**	**43,919**	**39,759**
Additions (via income statement)	4,080	325	0	543	4,948	9,525
Amounts used	−4,858	0	0	−58	−4,916	−3,441
Amounts released (via income statement)	−700	−635	−352	0	−1,687	−1,769
Transfers	1,133	63	0	157	1,353	590
Exchange differences	725	28	0	38	791	−745
Value as at 31 Dec	**40,738**	**1,295**	**109**	**2,266**	**44,408**	**43,919**
Short-term provisions						
Value as at 1 Jan	**62,422**	**15,599**	**466**	**10,731**	**89,218**	**113,081**
Additions (via income statement)	117,369	4,466	8,886	7,694	138,415	49,203
Amounts used	−59,431	−3,376	−297	−4,282	−67,386	−62,351
Amounts released (via income statement)	−2,046	−2,075	−158	−590	−4,869	−7,534
Transfers	−1,133	−52	0	−168	−1,353	−590
Exchange differences	3,339	447	0	261	4,047	−2,591
Value as at 31 Dec	**120,520**	**15,009**	**8,897**	**13,646**	**158,072**	**89,218**
Total provisions						
Value as at 31 Dec	**161,258**	**16,304**	**9,006**	**15,912**	**202,480**	**133,137**

Other employee benefit obligations
Other long-term employee benefit obligations include obligations from contribution plans and provisions for jubilee/anniversary benefits. Short-term employee benefit obligations mainly refer to holiday, vacation and flexible work time balances of employees, liabilities from management bonuses and severance payments.

Warranty provisions
The Group offers warranties on certain products and repairs or replaces those products which do not work to satisfaction. The provision set up at the end of the year to cover future warranty costs is based on historic experience with respect to the volume of repairs and returns.

Provisions for legal claims
The amounts shown include provisions for some legal proceedings instituted against the Group. It is the Supervisory Board's and Executive Board's opinion, which is backed up by the appropriate legal advice, that these proceedings will not result in any significant loss beyond the amounts set aside at year end.

Other provisions
Other provisions relate to various commitments to third parties, as entered into by the companies of the Group. These are, for example, accounting and audit costs, consulting fees, outstanding invoices and further commitments where the expiry date and amount are not definitively specified.

24. Other liabilities (all amounts in EUR thousands)

	Notes	2021	2020
Other long-term liabilities to third parties		233	293
Total other long-term liabilities		**233**	**293**
Other tax liabilities		34,305	32,812
Accounts payable to social benefits institutions		11,733	11,565
Accounts payable to employees		22,968	19,639
Other accounts payable to third parties		14,680	11,625
Derivative financial instruments – liabilities	26	166	3,496
Advance payments received	25	71,397	59,763
Accrued revenues from customer contracts (IFRS 15)	25	3,383	4,070
Accruals and deferrals		31,920	27,050
Total other short-term liabilities		**190,552**	**170,020**
Total other liabilities		**190,785**	**170,313**

25. Balances from customer contracts (all amounts in EUR thousands)

Trade accounts receivable are outlined in note 16. Contract liabilities are composed of accrued revenue from customer contracts and advance payments received, see note 24.

	2021		2020	
The development of contract assets and contract liabilities is as follows:	Contract assets	Contract liabilities	Contract assets	Contract liabilities
Value as at 1 Jan	**9,612**	**63,833**	**7,325**	**57,928**
Excess of performance over payments received	5,641		2,685	
Cumulative adjustments of revenues from previous periods	−155	1,058	659	1,196
Impairment of contract assets	−813		−73	
Transfer to trade accounts receivable	−1,137		−845	
Excess of payments received over performance		63,485		45,491
Revenue recognized from contract liabilities		−57,867		−37,867
Exchange differences	302	4,271	−139	−2,915
Value as at 31 Dec	**13,450**	**74,780**	**9,612**	**63,833**

Notes to the consolidated financial statements

26. Derivative financial instruments (all amounts in EUR thousands)

Derivative financial instruments held at year end are used primarily to hedge currency and interest rate risks for the Group. Contracts are concluded only with first-class institutions.

	Notes	2021	2020
Trading derivatives are classified as a current asset or liability:			
Derivative financial instruments – assets	14	13,632	3,879
Derivative financial instruments – liabilities	24	–166	–3,496
		13,466	**383**
The assignment to fair value hierarchy levels of trading derivatives is as follows:	3.5		
Level 2		13,466	383
		13,466	**383**
Gain (or loss) recognized			
Foreign currency hedging instruments	10	17,689	5,895
Interest rate hedging instruments	10	–5,068	–4,711
		12,621	**1,184**
The notional principal amounts and fair values of the foreign currency and interest rate derivatives are composed as follows:		**31 Dec 2021**	**31 Dec 2020**
Notional principal amounts			
Foreign currency hedging instruments		659,945	660,903
Interest rate hedging instruments		6,462	19,387
Total notional principal amounts		**666,407**	**680,290**
Fair values			
Foreign currency hedging instruments		11,866	–1,534
Interest rate hedging instruments		1,600	1,917
Total fair values		**13,466**	**383**

27. Commitments and contingent liabilities (all amounts in EUR thousands)

	Notes	2021	2020
Capital expenditure contracted for at the balance sheet date but not recognized in the financial statements is as follows:			
Capital commitments			
Open obligations for the acquisition of tangible fixed assets and intangible assets in the following year:		41,935	39,318
No provisions were recognized for the following contingent liabilities, as the occurrence of the risk is considered unlikely:			
Guarantees to third parties		0	12,100

28. Acquisitions of subsidiaries (all amounts in EUR thousands)

No companies have been purchased during 2020 and 2021.

29. Related party transactions (all amounts in EUR thousands)

Details to associates including proportion of ownership and consolidation method are given in the scope of consolidation (see note 33).

	Notes	2021	2020
Transactions			
Sales of goods and services to associated companies		897	0
As in the previous year, no major business transactions were effected with closely associated individuals.			
Key management compensation			
Salaries and social securities		5,832	6,133
Pension costs		461	499
Receivables or liabilities with associated companies			
Receivables from associated companies	16	164	0
Loans from associated companies	19	8,400	0
Liabilities to associated companies	19	39	0

30. Exchange rates

The main exchange rates used are:	**Average rate**		**Closing rate**	
To EUR	**2021**	**2020**	**31 Dec 2021**	**31 Dec 2020**
1 CHF	0.92660	0.93393	0.96415	0.92468
1 CNY	0.13166	0.12669	0.13834	0.12539
1 GBP	1.16496	1.12662	1.18886	1.11857
1 JPY	0.00768	0.00820	0.00764	0.00793
1 USD	0.84758	0.87225	0.87944	0.81853
To CHF				
1 CNY	0.14209	0.13565	0.14348	0.13560
1 EUR	1.07922	1.07074	1.03718	1.08146
1 GBP	1.25725	1.20632	1.23306	1.20969
1 JPY	0.00829	0.00878	0.00792	0.00858
1 USD	0.91473	0.93395	0.91214	0.88521

31. Impact of the coronavirus pandemic on Endress+Hauser's economic situation

As in the previous year, the Endress+Hauser Group countered the special situation caused by the pandemic with a high degree of flexibility and agility in the course of 2021. With strong growth in 2021, Endress+Hauser left the coronavirus pandemic behind economically. The consolidated net sales rose more than 11 percent. Endress+Hauser was always able to deliver despite restrictions due to the pandemic, procurement shortages and strained logistics chains.

Short-time working was deemed unnecessary. Headcount also experienced sizable growth. At the end of 2021, the Group had more than 15,000 employees worldwide, over 600 more than a year ago. Thanks to strict cost discipline, operating profit was significantly higher than the previous year.

The coronavirus pandemic had again no fundamental impact on the net assets, financial position or results of operations of the Endress+Hauser Group in 2021. There were no significant bad debts or value adjustments and there was sufficient liquidity available at all times. The equity ratio remains above 75%, and financial strength was reinforced at a high level. All major investment projects were continued and implemented as planned.

32. Post balance sheet events

Based on experience with similar events in the past, the invasion of Ukraine by Russian troops will have consequences for business in Russia. However, at this time we cannot say what this will actually mean for our operations in the region, for how long or how deep the impact will be. Since the start of the invasion, we have withheld all shipments to Russia and Ukraine in order to assess the impact of the sanctions. We will fully comply with the embargoes already announced as well as future measures. We will continually reevaluate the situation and adjust our actions accordingly.

The Supervisory Board is not aware of any other significant post-closing events that would justify an adjustment to the financial statements at the time of finalizing this report.

33. Endress+Hauser Group – Scope of consolidation as at 31 Dec 2021

	Company name, registered office	Field of activity	Share	Consolidation
Europe				
Switzerland	Endress+Hauser AG, Reinach	Holding	100%	Full
	Endress+Hauser Beteiligungs AG, Reinach	Support	100%	Full
	Endress+Hauser Flowtec AG, Reinach	Production	100%	Full
	Endress+Hauser Group Services AG, Reinach	Support	100%	Full
	Endress+Hauser International AG, Reinach	Sales	100%	Full
	Endress+Hauser Management AG, Reinach	Support	100%	Full
	Endress+Hauser Process Solutions AG, Reinach	Engineering/Development	100%	Full
	Endress+Hauser (Schweiz) AG, Reinach	Sales	100%	Full
	Innovative Sensor Technology IST AG, Ebnat-Kappel	Production	100%	Full
	IST Manufacturing AG, Ebnat-Kappel	Production	100%	Full
	TrueDyne Sensors AG, Reinach	Production	100%	Full
Austria	Endress+Hauser GmbH, Wien	Sales	100%	Full
Belgium	Endress+Hauser S.A.-N.V., Bruxelles	Sales	100%	Full
Bulgaria	Endress+Hauser (Bulgaria) LLC, Sofia	Sales	100%	Full
Croatia	Endress+Hauser d.o.o., Zagreb	Sales	100%	Full
Czech Republic	Endress+Hauser Czech s.r.o., Praha	Sales	100%	Full
	Innovative Sensor Technology s.r.o., Roznov	Production	100%	Full
Denmark	Endress+Hauser A/S, Søborg	Sales	100%	Full
Finland	Endress+Hauser Oy, Helsinki	Sales	100%	Full
France	Analytik Jena France SARL, Saint-Aubin	Sales	100%	Full
	Endress+Hauser Process Analysis Support SARL, Saint-Priest	Sales	100%	Full
	Endress+Hauser S.A.S., Huningue	Sales	100%	Full
	Société Générale de Métrologie S.A.S., Vitrolles	Sales	100%	Full
Germany	Analytik Jena GmbH, Jena	Production	100%	Full
	Automation24 GmbH, Essen	Sales	50%	At Equity
	Biometra GmbH, Göttingen	Production	100%	Full
	CodeWrights GmbH, Karlsruhe	Development	66.7%	Full
	Endress+Hauser Administration SE, Maulburg	Administration	100%	Full
	Endress+Hauser BioSense GmbH, Freiburg	Development	75%	Full
	Endress+Hauser Conducta GmbH+Co. KG, Gerlingen	Production	100%	Full
	Endress+Hauser Conducta Verwaltungs-GmbH, Gerlingen	Administration	100%	Full
	Endress+Hauser (Deutschland) GmbH+Co. KG, Weil	Sales	100%	Full
	Endress+Hauser Digital Solutions (Deutschland) GmbH, Freiburg	Engineering/Development	100%	Full
	Endress+Hauser Flow Deutschland AG, Coburg	Production	100%	Full
	Endress+Hauser Group Services (Deutschland) AG+Co. KG, Weil	Support	100%	Full
	Endress+Hauser InfoServe GmbH+Co. KG, Weil	Support	100%	Full
	Endress+Hauser InfoServe Verwaltungs-GmbH, Weil	Administration	100%	Full
	Endress+Hauser Logistik GmbH+Co. KG, Weil	Support	100%	Full
	Endress+Hauser Messtechnik Verwaltungs-GmbH, Weil	Administration	100%	Full
	Endress+Hauser SE+Co. KG, Maulburg	Production	100%	Full
	Endress+Hauser Wetzer GmbH+Co. KG, Nesselwang	Production	100%	Full
	Endress+Hauser Wetzer Verwaltungs-GmbH, Nesselwang	Administration	100%	Full

Notes to the consolidated financial statements

33. Endress+Hauser Group – Scope of consolidation as at 31 Dec 2021

	Company name, registered office	Field of activity	Share	Consolidation
Europe				
Germany	ETG Entwicklungs- und Technologie Gesellschaft-mbH Ilmenau	Production	90%	Full
	IMKO Micromodultechnik GmbH, Ettlingen	Production	100%	Full
	IST Innuscreen GmbH, Berlin	Production	100%	Full
	Jobst Technologies GmbH, Freiburg	Development	100%	Full
Greece	Endress+Hauser (Hellas) Single Member S.A., Marousi, Athens	Sales	100%	Full
Hungary	Endress+Hauser (Magyarország) Kft., Budapest	Sales	100%	Full
Ireland	Endress+Hauser (Ireland) Ltd., Kill, Dublin	Sales	100%	Full
Italy	Endress+Hauser Italia S.p.a., Cernusco s/Naviglio	Sales	100%	Full
	Endress+Hauser Sicestherm S.r.L., Pessano	Production	100%	Full
Lithuania	Endress+Hauser (Baltic) UAB, Kaunas	Sales	100%	Full
Netherlands	Endress+Hauser BV, Naarden	Sales	100%	Full
Norway	Endress+Hauser AS, Lierskogen	Sales	100%	Full
Poland	Endress+Hauser Polska Sp.z.o.o., Wroclaw	Sales	100%	Full
Portugal	Endress+Hauser Portugal S.A., Palmela	Sales	100%	Full
Romania	Analytik Jena Romania srl., Bucharest	Sales	70%	Full
	Endress+Hauser Romania SRL, Bucharest	Sales	100%	Full
Russia	LLC Endress+Hauser, Moscow	Sales	100%	Full
	Endress+Hauser Flowtec LLC, Moscow	Production	100%	Full
Slovenia	Endress+Hauser d.o.o. Slovenija, Ljubljana	Sales	100%	Full
Spain	Endress+Hauser S.A., Sant Cugat del Vallès	Sales	100%	Full
Sweden	Endress+Hauser AB, Solna	Sales	100%	Full
Turkey	Endress Hauser Elektronik Sanayi ve Ticaret A.Ş., Istanbul	Sales	100%	Full
United Kingdom	Analytik Jena UK Ltd., Maidstone	Sales	100%	Full
	Endress+Hauser Ltd., Manchester	Sales	100%	Full
	MHT Technology Ltd., Richmond	Production	100%	Full
Americas				
Argentina	Endress+Hauser Argentina S.A., Buenos Aires	Sales	100%	Full
Brazil	Endress+Hauser (Brasil) Instrumentação e Automação Ltda., Itatiba	Production	100%	Full
	Endress+Hauser Controle e Automação Ltda., São Paulo	Sales	100%	Full
	Endress+Hauser Flowtec (Brasil) Fluxômetros Ltda., Itatiba	Production	100%	Full
Canada	Endress+Hauser (Canada) Ltd., Burlington	Sales	100%	Full
Chile	Endress+Hauser (Chile) Ltda., Santiago de Chile	Sales	100%	Full
Colombia	Endress+Hauser (Colombia) S A S, Bogotá	Sales	100%	Full
Mexico	Endress+Hauser (México) S.A. de C.V., Tlanepantla de Baz	Sales	100%	Full
Panama	Endress+Hauser Panama, Inc., Panama City	Sales	100%	Full
Peru	Endress+Hauser (Peru) S.A.C., Lima	Sales	100%	Full
United States of America	Analytik Jena US LLC, Upland (California)	Production	100%	Full
	Automation24 Inc., King of Prussia (Pennsylvania)	Sales	50%	At Equity
	Endress+Hauser Conducta Inc., Anaheim (California)	Production	100%	Full
	Endress+Hauser DISC Inc., Greenwood (Indiana)	Sales	100%	Full
	Endress+Hauser Flow (USA), Inc., Greenwood (Indiana)	Production	100%	Full

33. Endress+Hauser Group – Scope of consolidation as at 31 Dec 2021

	Company name, registered office	Field of activity	Share	Consolidation
Americas				
United States of America	Endress+Hauser Inc., Greenwood (Indiana)	Sales	100%	Full
	Endress+Hauser InfoServe Inc., Greenwood (Indiana)	Support	100%	Full
	Endress+Hauser (USA) Automation Instrumentation Inc., Greenwood (Indiana)	Production	100%	Full
	Endress+Hauser (USA) Holding Inc., Greenwood (Indiana)	Support	100%	Full
	Endress+Hauser Wetzer (USA), Inc., Greenwood (Indiana)	Production	100%	Full
	Innovative Sensor Technology USA Division, Las Vegas (Nevada)	Sales	100%	Full
	Kaiser Optical Systems Inc., Ann Arbor (Michigan)	Production	100%	Full
	SpectraSensors Inc., Rancho Cucamonga (California)	Production	100%	Full
Asia-Pacific				
Australia	Endress & Hauser Australia Pty. Ltd., North Ryde NSW	Sales	100%	Full
China	Analytik Jena (Beijing) Instruments Co. Ltd., Beijing	Sales	100%	Full
	Analytik Jena Shanghai Instruments Ltd. Co., Shanghai	Sales	100%	Full
	Endress+Hauser Analytical Instruments (Suzhou) Co. Ltd., Suzhou	Production	100%	Full
	Endress+Hauser (China) Automation Co. Ltd., Shanghai	Sales	100%	Full
	Endress+Hauser Flowtec (China) Co. Ltd., Suzhou	Production	100%	Full
	Endress+Hauser InfoServe (Shanghai) Co. Ltd., Shanghai	Support	100%	Full
	Endress+Hauser Shanghai International Trading Co. Ltd., Shanghai	Sales	100%	Full
	Endress+Hauser (Suzhou) Automation Instrumentation Co. Ltd., Suzhou	Production	100%	Full
	Endress+Hauser Wetzer (Suzhou) Co. Ltd., Suzhou	Production	100%	Full
Hong Kong	Analytik Jena (Hong Kong) Ltd., Hong Kong	Sales	90%	Full
	Endress+Hauser (HK) Ltd., Hong Kong	Sales	100%	Full
India	Analytik Jena India Pvt. Ltd., Delhi	Sales	99.7%	Full
	Endress+Hauser Flowtec (India) Pvt. Ltd., Aurangabad	Production	100%	Full
	Endress+Hauser (India) Automation Instrumentation Pvt. Ltd., Aurangabad	Production	100%	Full
	Endress+Hauser (India) Pvt. Ltd., Mumbai	Sales	100%	Full
	Endress+Hauser InfoServe (India) Pvt. Ltd., Aurangabad	Support	100%	Full
	Endress+Hauser Wetzer (India) Pvt. Ltd., Aurangabad	Production	100%	Full
Indonesia	PT. Endress+Hauser Indonesia, Jakarta	Sales	100%	Full
Japan	Analytik Jena Japan Co., Ltd., Yokohama	Sales	100%	Full
	Endress+Hauser Japan Co. Ltd., Tokyo	Sales	100%	Full
	Endress+Hauser Yamanashi Co. Ltd., Yamanashi	Production	100%	Full
Kazakhstan	Endress+Hauser (Kazakhstan) LLP, Almaty	Sales	100%	Full
Malaysia	Endress+Hauser (M) Sdn. Bhd., Shah Alam Selangor	Sales	100%	Full
	Endress+Hauser (Tenaga) Sdn. Bhd., Shah Alam Selangor	Sales	30%[1)]	Full
Philippines	Endress+Hauser (Philippines), Inc., Manila	Sales	100%	Full
Singapore	Endress+Hauser (S.E.A.) Pte. Ltd., Singapore	Sales	100%	Full
South Korea	Analytik Jena Korea Ltd., Seoul	Sales	100%	Full
	Endress+Hauser (Korea) Ltd., Seoul	Sales	100%	Full
Thailand	Analytik Jena Instruments (Thailand) Ltd., Nonthaburi	Sales	100%	Full
	Analytik Jena Far East (Thailand) Ltd., Nonthaburi	Sales	49%[1)]	Full
	Endress+Hauser (Thailand) Ltd., Nonthaburi	Sales	100%	Full

33. Endress+Hauser Group – Scope of consolidation as at 31 Dec 2021

	Company name, registered office	Field of activity	Share	Consolidation
Asia-Pacific				
Vietnam	Endress+Hauser Vietnam Co. Ltd., Ho Chi Minh City	Sales	100%	Full
Africa, Middle East				
Algeria	Endress+Hauser Algérie SARL, Algier	Sales	49%[1]	Full
Egypt	Endress+Hauser (Egypt) LLC, Cairo	Sales	100%	Full
Oman	Endress and Hauser Muscat SPC, Muscat	Sales	100%	Full
Qatar	Endress+Hauser (Qatar) L.L.C., Doha	Sales	49%[1]	Full
Saudi Arabia	Endress and Hauser (Arabia) LLC, Al-Khobar	Sales	75%	Full
South Africa	Endress+Hauser Investments (Pty.) Ltd., Sandton	Support	100%	Full
	Endress+Hauser (Pty.) Ltd., Sandton	Sales	66.7%	Full
United Arab Emirates	Endress & Hauser Process Automation (UAE) Trading LLC, Dubai	Sales	49%[1]	Full

The scope of consolidation includes 130 companies in total in 55 countries, 11 of them registered in Switzerland and 119 abroad.

[1] The company is fully consolidated. Control according to IFRS 10 results from contractual agreements.

Changes in scope of consolidation 2021
In Germany, 50% of the shares in Automation24 GmbH, Essen and its subsidiary Automation24 Inc., King of Prussia (Pennsylvania, United States of America) were acquired. Process+Lab Devices Online GmbH, Berlin was merged into this company with economic effect as of 1 January 2021. Endress+Hauser BioSense GmbH, Freiburg was established in April 2021. SensAction AG was renamed Endress+Hauser Flow Deutschland AG in June 2021. AJ Innuscreen GmbH was renamed IST Innuscreen GmbH in July 2021. Endress+Hauser Systemplan GmbH was merged with Endress+Hauser Process Solutions (Deutschland) GmbH in December 2021 and renamed Endress+Hauser Digital Solutions (Deutschland) GmbH. In Ireland, the shares in CompuCal Calibration Solutions Ltd. were sold in November 2021. In the United Kingdom, Ultra Violet Products Ltd. was dissolved as of 15 June 2021. The Dutch Endress+Hauser (Netherlands) Holding BV was transformed into Endress+Hauser Holding GmbH, Liechtenstein and merged into Endress+Hauser Management AG with economic effect as of 1 January 2021. In the United States of America, Endress+Hauser Flow (USA) Inc. was established and a former permanent establishment was transferred to it at the end of 2021. The following additional companies were established: Endress+Hauser (Peru) S.A.C. in Peru in January 2021, Endress+Hauser (Kazakhstan) LLP in Kazakhstan in January 2021, Analytik Jena Instruments (Thailand) Ltd. in Thailand in September 2021, Endress+Hauser (Egypt) LLC in Egypt in April 2021, Endress and Hauser Muscat SPC in Oman in June 2021.

Endress+Hauser AG
Reinach

Report of the statutory auditor
to the General Meeting

on the consolidated financial statements 2021

pwc

Report of the statutory auditor

to the General Meeting of Endress+Hauser AG

Reinach

Report on the audit of the consolidated financial statements

Opinion

We have audited the consolidated financial statements of Endress+Hauser AG and its subsidiaries (the Group), which comprise the consolidated balance sheet as at 31 December 2021 and the consolidated income statement, consolidated comprehensive income, consolidated statement of changes in equity and consolidated cash flow statement for the year then ended, and notes to the consolidated financial statements, including a summary of significant accounting policies.

In our opinion, the consolidated financial statements (pages 26 to 64) give a true and fair view of the consolidated financial position of the Group as at 31 December 2021 and its consolidated financial performance and its consolidated cash flows for the year then ended in accordance with the International Financial Reporting Standards (IFRS) and comply with Swiss law.

Basis for opinion

We conducted our audit in accordance with Swiss law, International Standards on Auditing (ISAs) and Swiss Auditing Standards. Our responsibilities under those provisions and standards are further described in the "Auditor's responsibilities for the audit of the consolidated financial statements" section of our report.

We are independent of the Group in accordance with the provisions of Swiss law and the requirements of the Swiss audit profession, as well as the International Code of Ethics for Professional Accountants (including International Independence Standards) of the International Ethics Standards Board for Accountants (IESBA Code), and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Other information in the annual report

The Board of Directors is responsible for the other information in the annual report. The other information comprises all information included in the annual report, but does not include the consolidated financial statements, the stand-alone financial statements of Endress+Hauser AG and our auditor's reports thereon.

Our opinion on the consolidated financial statements does not cover the other information in the annual report and we do not express any form of assurance conclusion thereon.

In connection with our audit of the consolidated financial statements, our responsibility is to read the other information in the annual report and, in doing so, consider whether the other information is materially inconsistent with the consolidated financial statements or our knowledge obtained in the audit, or otherwise appears to be materially misstated. If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

Responsibilities of the Board of Directors for the consolidated financial statements

The Board of Directors is responsible for the preparation of the consolidated financial statements that give a true and fair view in accordance with IFRS and the provisions of Swiss law, and for such internal control as the Board of Directors determines is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, the Board of Directors is responsible for assessing the Group's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern

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basis of accounting unless the Board of Directors either intends to liquidate the Group or to cease operations, or has no realistic alternative but to do so.

Auditor's responsibilities for the audit of the consolidated financial statements

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 to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Swiss law, ISAs and Swiss Auditing Standards will always detect a material misstatement when it exists. 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.

A further description of our responsibilities for the audit of the consolidated financial statements is located at the website of EXPERTsuisse: http://expertsuisse.ch/en/audit-report-for-public-companies. This description forms part of our auditor's report.

Report on other legal and regulatory requirements

In accordance with article 728a paragraph 1 item 3 CO and Swiss Auditing Standard 890, we confirm that an internal control system exists which has been designed for the preparation of consolidated financial statements according to the instructions of the Board of Directors.

We recommend that the consolidated financial statements submitted to you be approved.

PricewaterhouseCoopers AG

Bruno Rossi	Korbinian Petzi
Audit expert Auditor in charge	Audit expert

Basel, 14 March 2022

Group Sustainability Report

The motivation of our employees provides the basis for supporting our customers with outstanding products, solutions and services.

Endress+Hauser Group Sustainability Report

Distinct goals, strong values and a long-term focus characterize the development of Endress+Hauser. As a family company, we want to combine economic success with ecological and social progress. Our work and our products are meant to create sustainable benefits. We are convinced that this will pay off – for people, the environment and the company, in good times as well as in difficult ones.

Responsibility at Endress+Hauser

Sustainability concept

We view sustainability as a holistic concept encompassing an economic, social and ecological dimension. All three dimensions are closely linked and dependent on each other. Only when we are able to fulfill our social and ecological responsibilities can we achieve long-term economic success. On the other hand, only economically successful companies are capable of making a long-term contribution to society and the environment.

As a family company, we think in generations, not in quarters. We pursue long-term goals and want to permanently change things for the better. Thus, the sense of sustainability is deeply rooted in our company culture.

The Spirit of Endress+Hauser, which translates our corporate culture into words, explicitly identifies comprehensive responsibility as one of our central values. We strive to develop trustful and loyal relationships between customers, employees and shareholders. And we maintain an open and constructive dialogue with all stakeholders. In addition, acting responsibly as a corporation for us also means being environmentally aware and conserving natural resources.

Sustainability reporting

We have been publishing a sustainability report since 2014 to document our performance and to describe corresponding measures and concepts. Prior to this, we used a materiality analysis to identify those issues that are important to us and our stakeholder groups and to determine which issues we are in a position to influence. The materiality matrix we developed based on that helped us define suitable key indicators for sustainability. The relevant metrics are recorded worldwide. The report covers the 2021 fiscal year. The data corresponds to the year-end figures.

Strategic sustainability indicator

Since 2015, we have been taking part in the annual EcoVadis sustainability scoring. This independent audit, which we undergo every year, is a strategic indicator of our progress in the field of sustainable business management. Apart from the industry comparisons, EcoVadis also provides improvement recommendations. About 85,000 companies around the world have already been certified by EcoVadis. With 76 out of a possible 100 points, in 2021 we achieved platinum level in the EcoVadis benchmark for the first time, improving our score by another four points compared to the previous year. We thus belong to the top percentile of all certified companies in our comparison group.

Since climate neutrality in particular is becoming increasingly important for our customers, we have been participating in the Carbon Disclosure Project (CDP) since 2021. The focus of the project is on the systematic recording of greenhouse gas emissions. In addition, the risks and opportunities for the company associated with climate change are analyzed and the strategies and principles of corporate governance used by management to address the challenges arising from climate change are reviewed. The first CDP assessment will be made in 2022.

To make further progress in the area of sustainability, we have created the position of Corporate Social Responsibility Officer at Group level. The objective is to advance Endress+Hauser's sustainability strategy, which is becoming increasingly important for our customers as part of their efforts to achieve climate neutrality, and to further improve and expand our sustainability reporting.

Sustainability strategy and sustainable management

Corporate strategy
According to our corporate mission we support our customers around the globe to improve their products and manufacture them more efficiently. Our goal is to further expand our position as a leading provider of products, solutions and services for process and laboratory automation. How we intend to achieve this goal is described in our new Strategy 2027+.

Strategy 2027+ outlines seven strategic directions of impact for our path into the future. These directions include the future of customer interaction, the future of the people in our company, the further development of our core industries, laboratory and process analysis, the strengthening of the Endress+Hauser brand, digitalization and the targeting of markets beyond Europe. Over the next few years, we intend to work intensely on all of these.

In the context of strengthening the Endress+Hauser brand, we specifically refer to the topic of sustainability, one of our brand values. The rating in the independent EcoVadis sustainability audit will remain a strategic indicator. Several strategic projects aim to further enhance our corporate social responsibility and strengthen our ethical conduct.

We have completed and rolled out our new strategy over the past year. The individual Group companies are currently drawing up their own strategies on this basis and will determine how they can contribute to the achievement of the common goals. These are implemented through initiatives and projects along our business processes, which we standardize and coordinate across the Group.

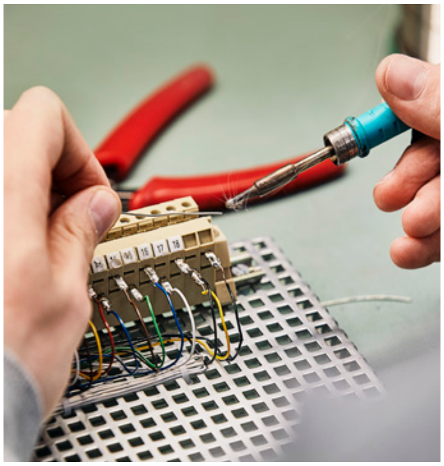
Shareholder structure
As the Endress shareholder family states in its Family Charter, Endress+Hauser should remain a successful family company. The goal of the Family Charter, created in 2006 and revised twice, is to strengthen solidarity within the family over the long term and consistently isolate the company from family issues. Various institutions foster the family members' relationships with the company and introduce the younger generation in particular to the company. The success of these efforts is reflected in the Family Council, which makes important decisions regarding the relationship between the family and the company. Since 2019 the younger generation has made up five of the eight representatives on the council.

In 2022, Sandra Genge, a granddaughter of company founder Georg H Endress, became a member of the Endress+Hauser Supervisory Board – the first representative of the younger generation on this body. She succeeds Hans-Peter Endress, who retired from the Supervisory Board on account of his age. The interests of the family are also represented on this committee by Supervisory Board President Klaus Endress. The members of the family also exert influence on the company as shareholders during the Endress+Hauser AG Annual General Meeting.

Management and corporate governance
The Endress+Hauser Group comprises a network of legally independent companies managed and coordinated by Endress+Hauser AG. Management is in the hands of the Executive Board of Endress+Hauser AG, chaired by the CEO. Business and organizational regulations define the responsibilities and roles of the Executive Board and the independent Supervisory Board.

The Supervisory Board as a supervisory and advisory body is granted an important role in corporate governance. Its task is to oversee the work of the Executive Board by providing constructive feedback. Fundamental and far-reaching decisions are taken with the approval of the Supervisory Board.

1



2

1
In the future, Endress+Hauser intends to reserve five percent of all positions for interns, apprentices, trainees and students.

2
For several years now, we have also been offering vocational training programs in the United States and India.

3
We want to offer our employees a working environment in which they feel comfortable and can best develop.

We apply the 'four-eye' principle across the entire Endress+Hauser Group. That means two or more employees participate in each business process or the results of a process are examined by a second employee. This rule also applies to the members of the Executive Board and Supervisory Board, respectively.

Corporate culture

The Endress+Hauser Group corporate culture is still heavily influenced by the shareholder family and their representatives in the company. The Spirit of Endress+Hauser explains in written form what distinguishes this culture and establishes important values and principles.

Without specifically referencing the principle of sustainability, the Spirit of Endress+Hauser relies on numerous aspects of sustainable corporate management. Key elements of the corporate culture include comprehensive responsibility for the company, a commitment to ethical behavior and a management principle that de-emphasizes profit maximization. The Spirit of Endress+Hauser furthermore contains statements regarding customer relationships, the employees, a culture of quality and communications. The applied corporate culture reflects, not least, a strong sense of solidarity.

Ethical behavior

The Endress+Hauser Code of Conduct provides a binding, Group-wide guideline for dealing with customers, coworkers, partners and suppliers. It encompasses guidance on products and services, personal integrity, corporate integrity, personnel policies, company assets and corporate responsibility. All employees must be familiar with the guidelines of the Code of Conduct in accordance with their duties and responsibilities and, if necessary, confirm their compliance by means of a self-declaration. The main content is conveyed via an interactive training module.

We expect our suppliers to adhere to the same level of sound ethical behavior and to observe ethical and social principles. This includes the obligation to comply with the German Electrical and Electronic Manufacturers' Association (ZVEI) Code of Conduct. We verify the compliance by means of regular on-site audits. In addition, more and more of our key suppliers are participating in the independent EcoVadis sustainability audit.

Economic sustainability

Business approach

We concentrate only on businesses we understand and which are a good fit for us. This is the foundation of our sustainability-aligned business approach. Our portfolio is based on our core expertise in process and laboratory automation and sensor technology.

To us, profit is not the goal, but the result of good management. The vast majority of our earnings remain in the company to develop better products, open up new markets, construct more efficient operating facilities, erect modern buildings, promote our employees, train young people and support the Group's CSR activities. By doing this, we reinforce the company's future sustainability and resilience in times of crisis.

With an equity ratio of 79.1 percent, a cash flow from operating activities of 374.7 million euros plus cash, cash equivalents and financial assets totaling 1.152 billion euros (2021 fiscal year figures), we are well positioned to make the investments needed to ensure a solid and successful future, without relying on external sources, and to grow our Group from within. This guarantees the independence and autonomy of our company.

We serve customers in various industries and have sales and production centers around the world. Even our largest key accounts represent less than 1.5 percent of our net sales, which minimizes the impact of individual customers, economic cycles, regional or sectoral business developments, currency fluctuations, political crises or natural disasters.

Our understanding of responsible corporate management includes fair wages and working conditions, adherence to social standards and the efficient and smart use of energy and resources. Measures aimed at improving sustainability include issues such as occupational safety, employee retention and recruiting as well as environmental protection in our operations.

Offering

Our customers are increasingly interested in how they can use our offerings to achieve their own sustainability objectives. Our products, solutions and services help to improve processes regarding efficiency, safety and resource consumption. That means our global business activities help to increase product quality and production safety, save raw materials and energy and protect the environment and the climate. In addition, digital interconnection of measurement technology makes actual conditions transparent and thus permits the optimization of processes and information flows.

Within the context of operating industrial plants, our instruments require negligible amounts of energy. More serious effects would be malfunctions leading to a production disturbance or an interruption of operations. In addition to comprehensive quality management from development through production to operation of our instruments, predictive maintenance concepts are playing an increasing role in further reducing the risk of unexpected failures.

When it comes to developing new products, an eco-design guideline ensures they are designed as sustainably as possible. This includes special requirements for materials, a design geared to longevity and simple disposal at the end of the life cycle. Endress+Hauser follows the respective European and Chinese RoHS directives to meet the requirements for placing hazardous substances in electrical equipment and electronic components on the market, and applies the provisions of the REACH regulation for the registration, evaluation, authorization and restriction of chemicals.

Innovation

In 2021, we invested 213.4 million euros in research and development. That equates to 7.4 percent of our net sales. We applied for 258 patents for the first time at patent offices around the world. This is clear evidence of the Group's strong focus on innovation. In 2021, we launched a record number of more than 70 new products and over 1,000 product options. As a result of some adjustments, the intellectual property portfolio declined slightly in 2021, now comprising more than 8,600 active patents and patent applications.

Nearly 1,200 employees in research and development ensure that the innovation engine continues to run at full speed. We cooperate closely with universities and institutes, customers and other suppliers. And, alongside our conventional innovation management program, we invest in start-ups as well as joint ventures that are capable of accelerating new developments with a great deal of freedom. Endress+Hauser also acquires cutting-edge technologies and expertise through company takeovers.

Customer, partner and supplier relationships

Long-term success is possible only by sharing ideas and maintaining a constant dialogue. We are convinced that combined strengths make us more successful. This philosophy is reflected in the way we manage our customer and partner relationships. Loyal relationships illustrate that the open sharing of ideas, trust-based collaboration and mutual learning bring benefits to all parties involved.

Customers around the world place their trust in us. We try to earn this trust by regularly measuring their level of satisfaction. We systematically analyze those aspects that can be optimized and address them with individual measures to continually improve. Regular survey cycles reveal long-term developments and make the success of the various actions visible and measurable.

Strategic partnerships and participation in associations and committees enable us to shape and advance important issues together with other companies, our customers and key stakeholders. Recently, one of our focus areas has been to find answers to the challenges of digitalization, for example by standardizing protocols, interfaces and platforms. For instance, Endress+Hauser is one of the founding members of the Open Industry 4.0 Alliance as well as the Industrial Digital Twin Association.

Creating and maintaining secure jobs is an integral part of our corporate social responsibility.

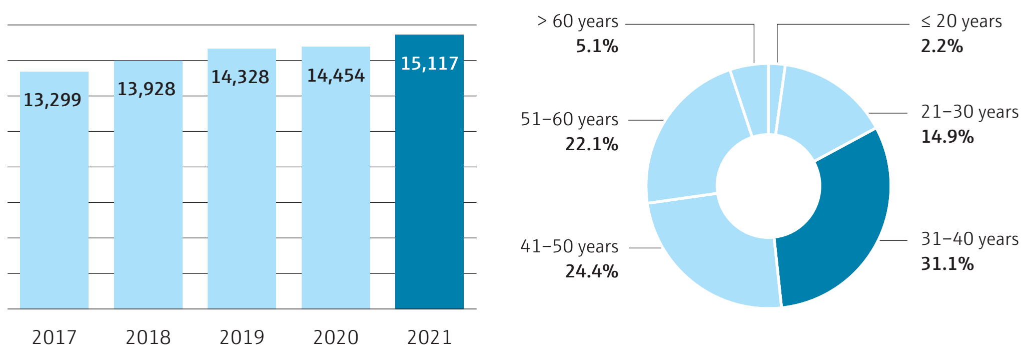
1
The wind tree in Gerlingen, Germany – a metal structure with miniature wind turbines – is a visible sign of the site's sustainable energy concept.

2
Our Canadian sales center's new building in Burlington, Ontario generates more energy than it consumes. It is one of the greenest commercial buildings in the country.

1

2

Endress+Hauser Group employee headcount and demographics



Social sustainability

Social responsibility
We view creating and retaining secure jobs as an important part of our corporate social responsibility. In addition, the taxes generated by our operations make a significant contribution to social well-being around the world.

In our Code of Conduct we commit ourselves to adhering to applicable laws and regulations. That means not only following the letter of the law, but the respective spirit. For this reason, we reject any business structures designed to evade taxes. We utilize tax advantages and tax relief only to the extent they accrue in the course of normal business operations and only if we are legally entitled to them.

We strive at all locations to maintain a transparent, professional and constructive working relationship with tax authorities. This includes providing correct and timely information. In 2021 we paid a total of 107.0 million euros in income taxes worldwide. This equates to an effective tax rate of 23.1 percent.

Employees
Committed and competent employees are the driving force behind our success. They create relationships with our partners based on trust, drive product innovations forward and generate added value for our customers, thus forming the essential foundation of our growth and profitability.

To create a good working environment for our employees, we offer performance-based compensation, above-average social benefits, attractive opportunities for career development and a comprehensive program that allows them to strike an effective work-life balance, including access to childcare services and flexible work models. We furthermore invest in the health of our employees and promote their growth through targeted personnel development and training programs.

In 2021, we made the health of our employees our top priority as before. At the beginning of the pandemic, we responded with travel restrictions and issued Group-wide guidelines for dealing with the coronavirus as early as February 2020, and we have largely succeeded in avoiding infections within the company since then. Last year, we took the initiative at various sites to offer our employees a vaccination against the coronavirus. In some cases, family members, employees of other companies and the public in general were also invited to these campaigns.

We strive to continually improve our attractiveness as an employer. We monitor the satisfaction of our employees with regular surveys based on a Group-wide standard to ensure the results provide a comparison. A current evaluation of the data derived from the employee and customer surveys of recent years illustrates that employee commitment and customer retention are directly related. Only motivated employees provide outstanding service to our customers.

Workforce in numbers
On average globally, our employees have been working for Endress+Hauser for 10.3 years. The Group-wide turnover rate is 6.8 percent and thus higher than in the previous year (2020: 5.0 percent). At the end of 2021, a total of 15,117 people (including temporary employees) were employed by the Endress+Hauser Group, 663 more than the previous year. To cope with the significant growth in units produced we have created new jobs, mainly in manufacturing.

Diversity is a key principle with respect to our employees as well, reducing risks and making us more resilient in times of crisis. A diverse workforce increases productivity, encourages innovation, strengthens customer retention and helps us compete for talent. At the end of 2021, people from 92 countries worked for the Endress+Hauser Group. Women represent 30.0 percent of the workforce, which is an increase over the prior year (29.6 percent) and a high figure compared to other companies in the industrial sector. The age groups are equally distributed across the Group, with little change experienced in 2021.

Occupational health and safety
With respect to Group-wide occupational safety, we put significant effort into ensuring our employees enjoy a safe, pleasant and productive work environment. In 2021, the rate of occupational accidents with lost time increased to 7.0 per 1,000 employees, partly owing to higher workloads and increased shift work (previous year: 5.5).

We initiate accident prevention, risk awareness and work safety measures at our locations. Our occupational safety specialists are generally involved in workplace-related decisions at a very early stage. Company restaurants at numerous locations all around the world offer our employees a varied and well-balanced selection of nutritional meals. In the course of the previous year, we provided several online actions and activities for health promotion and prevention.

Young talent and personnel development
As a technology company, we depend on highly qualified professionals and committed young talent. To attract new employees who are a good fit for us, the Endress+Hauser Group strives to continuously improve the working conditions for its employees and strengthen its internal and external image with targeted employer branding.

One of our objectives is to achieve more diversity, since diverse teams are more successful and cope with change more easily. Therefore, Endress+Hauser makes an effort to attract the best employees, independent of gender, age, ethnic origin, religious or philosophical convictions or sexual orientation. A special focus is on the promotion of women. By 2030, Endress+Hauser wants to increase the share of women in management positions to around 30 percent and on the whole attract more women. The targeted proportion of women in the workforce is 40 percent.

To reach this goal, our global initiative the Women's Integrated Network (WIN) has defined five areas of focus: an employer brand that appeals to women, a staff development program that is geared toward women as well as men, flexible work models, measures against unconscious bias in recruitment and the use of networks to draw the attention of female professionals to Endress+Hauser. Apart from that, female role models in the company should become more visible.

We have already rolled out this initiative worldwide. The Group companies develop – depending on their environment – appropriate concepts and implement them. We have taken some measures to advertise jobs in a way that appeals to a diverse target group. Fair pay based on comprehensible criteria such as skills, experience, performance and responsibility is another important aspect for us. A Group-wide job grading assessment is intended to create better comparability and increase transparency in the future.

Well-trained professionals are key to the success of our company. At the same time, we believe that our commitment to vocational training of young people is a way of demonstrating our social responsibility. Particularly in Germany and Switzerland, we train the vast majority of our specialists internally. In 2021, 360 young people were undergoing vocational training with us, which corresponds to an apprenticeship ratio of 2.5 percent. In the past year we have again been able to offer virtually every apprentice a permanent position upon completion of their vocational training program.

In the long term Endress+Hauser strives to double the training ratio. Five percent of all positions worldwide will be reserved for interns, apprentices, trainees and students. We are in the process of developing a concept to implement this project over the next few years.

We allow for a great deal of freedom for the personal development of our employees. Of all personnel expenses, we are setting aside 2.5 percent for training. This equates to roughly five days of training per employee each year. In addition, we are now able to offer wide-ranging training and development programs virtually, making use of a new IT platform. We recently began offering part of our workforce access to LinkedIn Learning, a platform boasting more than 16,800 virtual courses.

Social engagement
Endress+Hauser is engaged in volunteer activities wherever the company is located in the world. We sponsor select projects involving social, cultural, educational, scientific and sports activities, as well as the promotion of young talent. In the area of charitable contributions, we focus our assistance mainly on non-profit initiatives and social organizations.

We maintain research and education partnerships with scientific facilities and training centers around the world. There is no central accounting of the money invested in our broad range of charitable and sponsor activities, and in our research and education partnerships in the form of monetary and equipment donations and personnel resources, because these activities are the responsibility of the Endress+Hauser Group subsidiaries.

The Endress+Hauser Water Challenge, a Group-wide initiative, has been running since 2019. In charity runs around the world, employees raise funds to improve worldwide access to clean drinking water; the company then doubles the total amount. The funds go to select aid projects in Asia, South America or Africa. We have thus taken our business commitment to a safe, efficient and eco-friendly water supply and transferred it to the non-profit sector.

Since the pandemic again made joint activities difficult last year, our employees are increasingly setting off on their own or in smaller groups – the main idea being that there is a goal that involves physical activity. In this way, the initiative encourages our employees worldwide to keep moving. The funds go to new projects in the Philippines and India.

In light of the coronavirus pandemic, Endress+Hauser has provided opportunities for vaccination at numerous locations in 2021. Particularly important was an initiative at the production site in Aurangabad in western India: supported by the industry association CII and the conglomerate Bajaj, Endress+Hauser set up a vaccination center on its local premises. Employees of micro, small and medium-sized enterprises in the region, as well as the residents of the surrounding villages, came to get vaccinated at no charge. To date, more than 50,000 doses have been administered.

Environmental sustainability

Environmental footprint
Our production is not energy intensive and has only a minor impact on the environment. The major sources of our ecological footprint are building and office infrastructures, commuting to and from work, business travel and material transport. We generally seek opportunities to reduce impacts, for example by constructing energy-efficient buildings, utilizing renewable energy or supporting electromobility.

Our Canadian sales center in Burlington, Ontario has moved into a building that generates more energy than it consumes. The new buildings of the plant for flow measurement technology in Reinach, Switzerland, with over 25,000 square meters of space, are also climate neutral in operation. In addition to supplementary solar panels, the energy concept involves a heat storage tank with a capacity of 57,000 liters. In Aurangabad, India, where around 250 people manufacture instruments for Endress+Hauser, two electric buses recently began taking employees from the surrounding area to work in the morning and back home again in the evening.

1

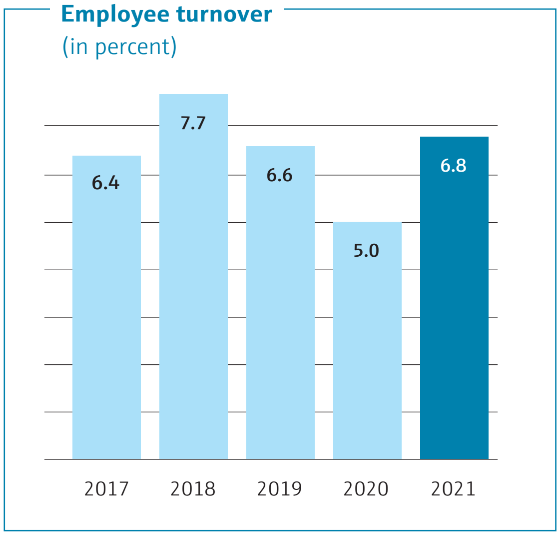
2

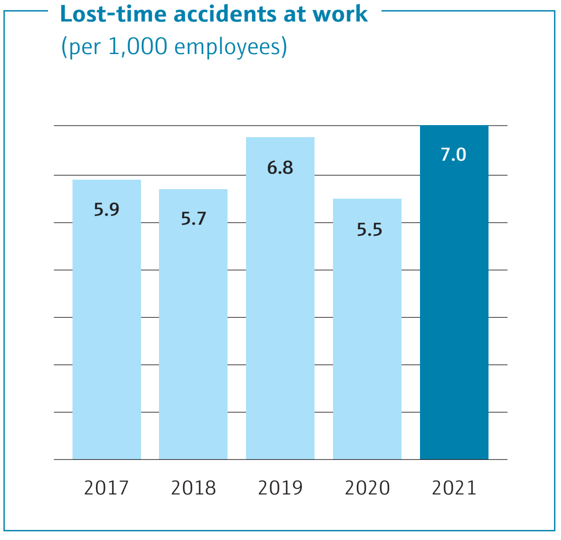
3

1
On the roofs of many of our buildings, photovoltaic installations generate solar energy.

2
Energy monitoring helps to systematically cut consumption and emissions at the major sites.

3
This cogeneration plant provides environmentally friendly heat and electricity from biogas.





Endress+Hauser manufactures to the same high quality and environmental standards all over the world.

We also look for possible savings in our supply chain: the new logistics hub located in Wörrstadt, Germany not only bundles shipping of all products from European production facilities to customers, but in addition receives and redirects material supplies to the manufacturing sites. Sending the shuttle trucks delivering the products back with loads of supply parts eliminates about 75 percent of empty trips. Thus, the ecological footprint of the entire supply chain is improved.

We also support our employees' environmentally aware behavior, for example through participation in the Bike to Work initiative, which promotes cycling via team-based competitions, or through JobRad, a bicycle leasing service in Germany. Furthermore, we increasingly offer the necessary charging infrastructure to visitors and employees using electric vehicles at our locations.

Environmental footprint
To examine our environmental footprint, each year we capture corresponding data related to energy and water consumption, carbon dioxide emissions and waste accumulation. The data encompasses all domestic and overseas production sites and the great majority of our sales and support entities all over the world.

Energy
For an industrial enterprise, energy consumption for plants and machinery in facilities of the Endress+Hauser Group is comparatively low. The production centers use a large part of the energy for heating and lighting, as well as for the office and IT infrastructures. Relative energy consumption for heating and electricity at our major sites has declined steadily over the years.

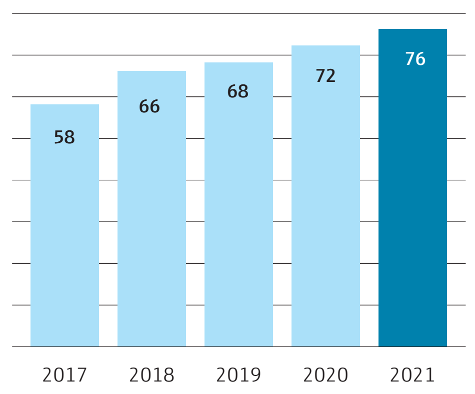
We have been using energy monitoring to continuously increase energy efficiency. In the context of the pandemic, energy consumption increased again due to intensive building ventilation and more shift work, among other things. In 2021, we were able to reduce it again to 47.9 megawatt hours per million euros of sales (2020: 49.7 megawatt hours).

Carbon dioxide
Thanks to a systematic use of green electricity, our European product centers significantly reduced their CO_2 emissions in 2019. In many locations, photovoltaics are also used to cover part of their electricity demand without emissions. On that basis, the Endress+Hauser Group improved its overall balance by more than one third. As a consequence of the coronavirus pandemic, CO_2 emissions rose again slightly from 10.6 to 11.1 tonnes per million euros of sales, partly due to the higher energy requirements for building ventilation.

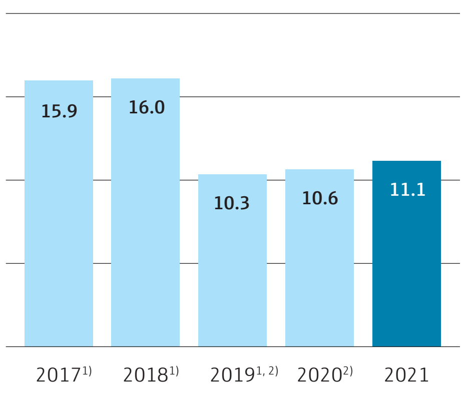
Water consumption
At Endress+Hauser, water is required primarily for sanitary and cleaning purposes. Many of our employees have been working from home since 2020. Owing to that, water consumption decreased accordingly and remained unchanged at 115 cubic meters per million euros of sales in 2021.

Waste
Waste accumulation within the Endress+Hauser Group fluctuates from year to year in relation to the various types of waste, resulting for example from changes in the product mix or reflecting special effects such as construction work or inventory adjustments.

EcoVadis sustainability score



Carbon dioxide emissions
(in tonnes/EUR millions in sales)



1) Excluding Innovative Sensor Technology IST
2) Value adjusted

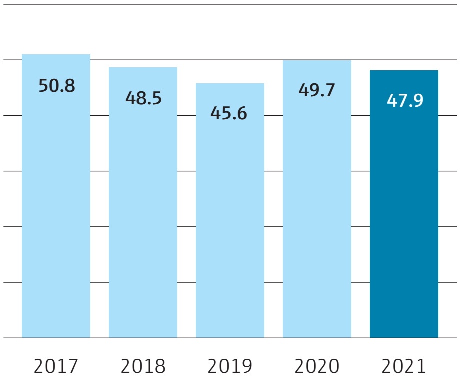
Because the information regarding the amount of waste is derived from the disposal company invoices, the various pickup schedules also influence the yearly figures.

In the past financial year, our worldwide operations accumulated 1,196 kilograms of municipal waste per million euros in sales, an increase compared to the previous year (1,134 kilograms). The volume of hazardous waste increased from 229 to 246 kilograms per million euros in sales, while the amount of scrap metal grew from 396 to 437 kilograms per million euros in sales. The volume of electronic scrap decreased in the reporting period from 19.6 to 14.0 kilograms per million euros in sales.

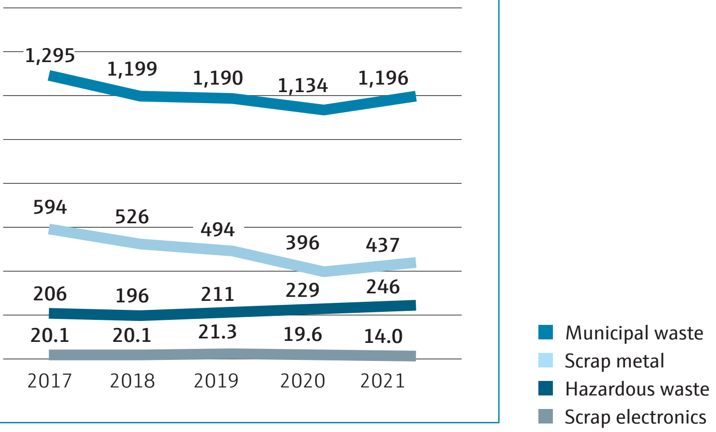
Certification and auditing
Sustainability is increasingly becoming a focus for our customers, some of whom are using the United Nations' 17 sustainable development goals as a blueprint. How to deal with social and environmental standards is a vital part of many procurement processes. All Endress+Hauser production centers are certified in accordance with ISO 9001/14001 (quality management and environmental management) and OHSAS 18001/ISO 45001 (occupational health and safety) as well as, in some instances, ISO 50001 (energy management).

Endress+Hauser analyzes the sustainability of its own business processes by annually undergoing the independent EcoVadis audit. The audit evaluates management systems of companies regarding CSR based on 21 criteria grouped into the topics of environment, labor practices and human rights, fair business practices and sustainable procurement. These are based on international standards including the Global Compact Principles, the International Labour Organization (ILO) conventions, the Global Reporting Initiative (GRI) standards, the ISO 26000 guidelines and the Ceres Roadmap. Apart from that, we are now also participating in the Carbon Disclosure Project.

Energy consumption for heating and electricity (in MWh/EUR millions in sales)



Waste accumulation (in kg/EUR millions in sales)



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People for Process Automation

Endress+Hauser

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