An aerial photograph of a city waterfront, likely Copenhagen, showing modern residential and commercial buildings along the water. A large blue rectangular box is overlaid on the left side of the image, containing white text. The sky is filled with dramatic, grey clouds.

A safe and  
sustainable world  
Annual report 2021

# Satisfactory result and good liquidity launch growth plan

FORCE Technology was focused on transition and growth in 2021. After several years of fluctuating results and divestments, 2021 was the year where the first steps towards a more growth and development-oriented company were taken.



**Hanne Christensen**  
CEO



**Jesper Haugaard**  
Chairman of the board



**Per Michael Johansen**  
Vice chairman

## Difficult conditions

FORCE Technology entered 2020 with a good financial and commercial foundation for growth, but the Corona pandemic meant unexpected and difficult conditions with a decline in earnings within most business areas. The difficult conditions continued in 2021 when the Coronavirus especially impacted finances in the spring.

Over the summer, we recovered the lost revenue and earnings, and even though the Corona pandemic once more presented us and our customers with challenges at the end of the year we were able to fulfil the overall expectations for 2021 thanks to a focus on stable order intake and high activity level.

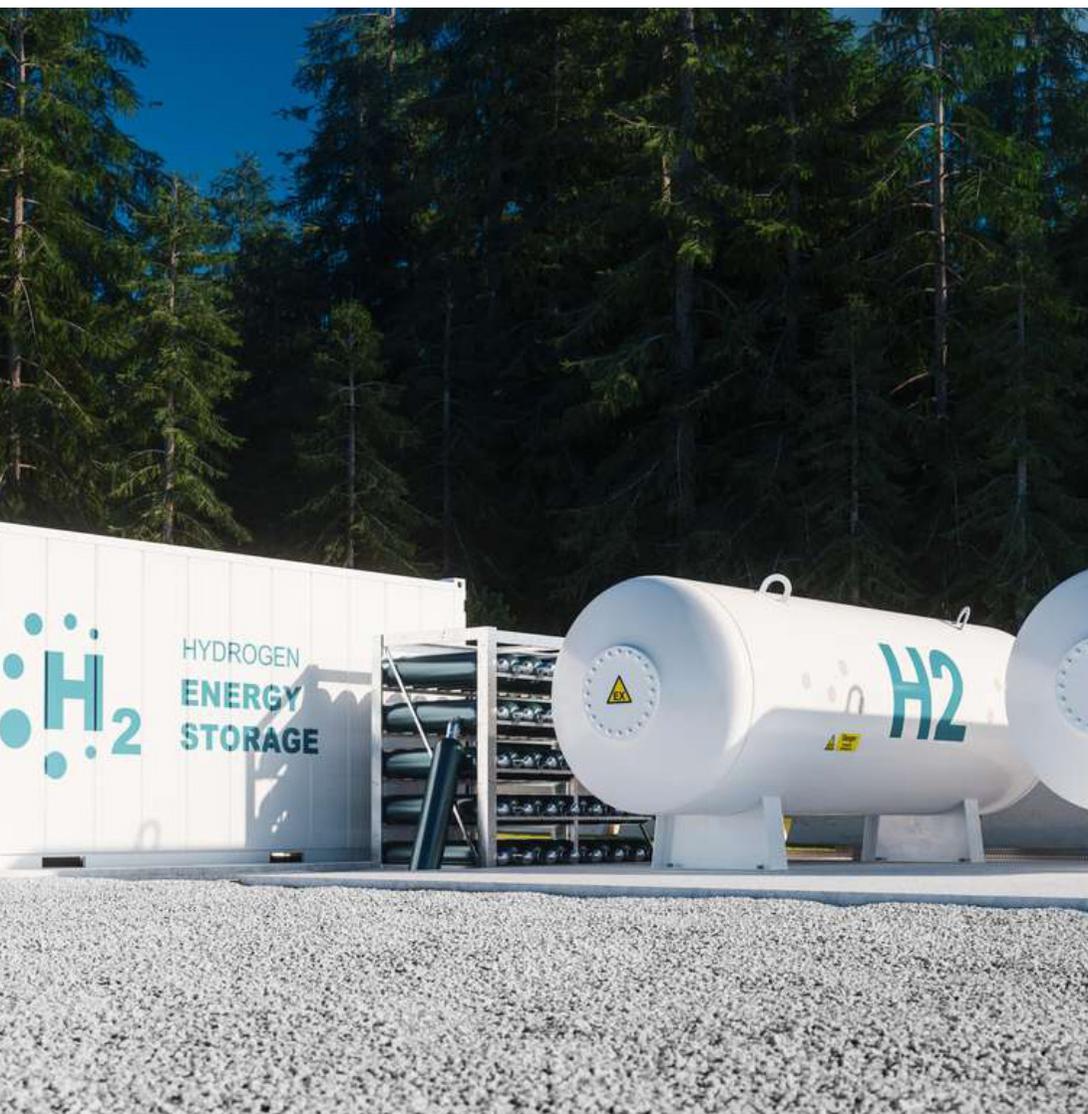
It also made a positive difference that our cost level was lower throughout 2021 than the preceding year and that, for the second year in a row, we succeeded in quickly adjusting many activities to the new reality. For example, we were able to relaunch Simflex with our cloud-based maritime simulator platform, which allows online training in the customers' own environment.

We also maintained the investment level in 2021 by, for example, cutting the first turf for the largest single investment in facilities in the history of FORCE Technology: A new gas calibration plant in Vejen, which is ready for handling Power-to-X gasses. We also upgraded one of our many climate chambers so that it is now able to test equipment and products all the way down to minus 60 degrees Celsius.

## Satisfactory result and good liquidity

Despite the challenges of the Corona pandemic, FORCE Technology generated a satisfactory profit of DKK 14 million in 2021. This is a decline of DKK 50 million, which is primarily due to the divestment of three business areas which generated extraordinary profits of DKK 68 million in 2020 and DKK 24 million in 2021. In addition, the profit for the year is affected by writedown and discontinuation costs of DKK 24 million.

Revenue amounted to DKK 1,019 million in 2021. This is DKK 66 million less than in 2020. The DKK 44 million is due to the



divestments, and the remaining DKK 22 million relates to the loss of one single customer contract. Lower operating expenses could largely compensate for the lost revenue throughout 2021.

In 2021, FORCE Technology improved efficiency. Revenue per employee thus increased by 3 per cent to well over DKK 1 million while the gross profit margin increased by 2 percentage points to 74 per cent - the highest level in 5 years.

#### Growing subsidiaries

Our subsidiaries have seen nice progress. The Norwegian subsidiary FORCE Technology Norway AS increased its activities after the Corona lockdown and emerged from 2021 in good shape with revenue of DKK 155 million, which is DKK 10 million more than the preceding year. At the same time, the company generated a profit for the first time in 6 years.

The Swedish subsidiary, DELTA Development Technology AB, was able to deliver a great profit in 2021 due to the investments in recent years. Revenue increased to DKK 20 million while the profit before tax increased by DKK 4 million to DKK 7 million.

In 2021, FORCE Technology had a new subsidiary, AeroCollect® A/S. The company bases

its business on the patented AeroCollect®-technology, which may revolutionize veterinary diagnostics. With this technology, it is possible to monitor entire stocks of animals for diseases through a single air sample.

#### New strategy

As the foundation for the development of a more growth and development-oriented FORCE Technology, we launched a new strategy in 2021 which set a direction and specific targets for 2024.

Because of the new strategic goals that were launched, we have been able to enhance our customer focus and focus on the areas of digitalization, sustainability and safety. At the same time, we want to create a diverse, innovative and attractive workplace to give our many competent and dedicated employees the best basis for acting professionally and responsibly.

Six new market areas were also identified as part of the strategy: Power-to-X, life science, circular economy and resources, wind energy, digital innovation and hybrid tests. The development of new services and products and strengthening of the existing ones are well under way within the six areas.

At the same time, already existing market areas are strengthened to create a strong basis for reaching the strategic goals and the ambition for annual growth in revenue of four per cent during the strategy period.

As an indirect result of the strategy, we obtained ISO 9001 certification in 2021 to strengthen and document our work with quality management.

### Corporate social responsibility

One of the fundamental values at FORCE Technology is to assume Corporate social responsibility. In the coming years, we will therefore work more strategically with sustainability, both internally and externally. In 2021, we thus started to collect data for new climate accounts for FORCE Technology i Denmark.

The first accounts show that in 2019, we emitted 9,351 tons of CO<sub>2</sub>-eq. In 2020, this decreased to approx. 7,502 tons CO<sub>2</sub>-eq, and for both years electricity and cars are the two largest sources. In 2021, we saw an increase in our emission to well over 8,161 tons CO<sub>2</sub>-eq. However, the increase was due to emission from a leaky valve at our gas calibration plant in Vejen, and it was therefore an isolated emission episode which will not affect the figures in the coming years. Based on the climate accounts, we have

decided to reduce our CO<sub>2</sub> emission by 25 percent compared to 2019 before the end of 2024.

However, corporate social responsibility is not just about sustainability, and in the past year we have therefore introduced a whistleblower scheme so that employees, customers and other stakeholders may report any suspicion of irregularities in a secure and confidential manner.

In 2021, we also signed the Confederation of Danish Industries' Gender Diversity Pledge, and in 2022 we set specific goals for gender diversity in the company. In 2020, the number of female employees represented 21.7 per cent while the number of female managers represented 17.5 percent. In 2021, the number of female employees rose to 22.5 per cent while female managers accounted for 18.7 percent. There has thus been a positive development in the past year, even if it has not been significant.

At the end of 2021, the proportion of external female board members was 25 percent. The target is 33 percent by the end of 2024. If you look at the entire board, including the employee-elected members, the proportion of women is 43 percent. An additional female member will take office in May 2022, bringing the proportion of female board members (including

the employee-elected) up to 50 percent. Furthermore, we have decided to publish the total remuneration for the management and the board of directors. In 2021, it amounted to DKK 5.2 million and DKK 0.1 million in directors' fees paid in FORCE Technology Norway. No remuneration has been paid in other foreign companies. Remuneration has been paid to 13 board members.

### Future of growth and investments

FORCE Technology enters 2022 with a strong financial and strategic foundation.

We have our eyes set on growth, and we will grow both with respect to number of employees, investments, revenue and bottom line. With the unremitting Corona pandemic, the shortage of microchips and challenged supply chains globally, it will be growth under difficult conditions. However, with diligence, agility and focus on investment and recruitment, we have positive expectations for 2022.

The course is set for growth and development, and if everything goes according to plan we will see new colleagues, more investments and a sound and growing financial performance in 2022.



## Notes from management's review



### SimFlex

Pilots and captains from all over the world no longer need to visit FORCE Technology's ship simulators in Lyngby when they need maritime training. In 2021, we launched SimFlex Cloud - a cloud-based simulator platform that can be accessed globally and provides easy and convenient access to the well-known training concept SimFlex, which has existed for over 25 years.

The platform also uses Augmented Reality, which makes training more realistic.



### New gas calibration system

The world's largest closed loop for calibration of gas meters will be located in Vejen. In 2021, FORCE Technology initiated an expansion of the existing loop, doubling its capacity. It will make the loop the world's largest and attract international customers and labor to the area.

The loop will also be able to handle hydrogen mixtures - an important prerequisite for being part of the ambition for a green Power-to-X adventure in Denmark.



### Upgraded climate chamber

Equipment for mining, defense and offshore must be able to function in extreme environments - from the desert heat in the Middle East to the Arctic cold in Greenland. To meet that need, FORCE Technology and LORC upgraded their climate chamber on Lindø in 2021 so that it can expose equipment to minus 60 degrees and test its performance.

The climate chamber is one of the largest in Europe and with the new temperature range it will also be among the most advanced. It can easily accommodate two 40-foot containers and equipment weighing up to 1,000 tons.



### AeroCollect®

One simple air test. That is all abattoirs and producers need to get a clear picture of the disease development in a herd of animals. The revolutionary technology is called AeroCollect® and was developed in Denmark by FORCE Technology.

In recent years, AeroCollect® has shown enormous potential - especially in the field of chicken and pig production - and therefore, FORCE Technology has separated some of the activities of the current AeroCollect® division into a subsidiary that will drive sales with a focus on international growth.



REVENUE

1,019

MDKK

PROFIT FOR THE YEAR

16

MDKK

NUMBER OF EMPLOYEES

1,000

# New market areas in FORCE Technology

In 2021, FORCE Technology launched a new strategy, which formulates and sets specific goals for a new direction towards 2024. Six new market areas are in focus: Power-to-X, life science, circular economy and resources, wind energy, digital innovation and hybrid tests.



## Power-to-X

Power-to-X is often described as Denmark's next green growth adventure. FORCE Technology will support the development and provide solutions to complex problems in infrastructure, materials, electronics, metrology, control and security.

## Life Science

Life Science is one of Denmark's most important export industries. FORCE Technology, with strong competencies in compliance, standards, materials, electronics, hygiene, sound and air, will help the sector to live up to high regulatory requirements.

## Resources and circular economy

Products and production must be sustainable. FORCE Technology will help customers optimize their resource consumption and live up to requirements for documentation, longer product lifecycles, recycling and circular economy.

## Wind energy

Wind energy plays a crucial role in the green transition. FORCE Technology has been involved from the start and will provide services to the entire value chain - from monitoring and corrosion to NDT, simulation, testing, acoustics and materials.

## Digital innovation of industrial products and productions

Many industrial companies need help digitizing their products or processes. FORCE Technology will support the digital development of the companies' production with our extensive knowledge in sensors, electronics and IoT.

## Hybrid tests and digital services

The future is digital and automated. FORCE Technology will therefore not only be a recognized provider of physical testing, but also build a digital infrastructure of testing facilities and digital access to reports, data, knowledge, digital twins and simulations.

## POWER-TO-X

# FORCE Technology issues the world's first OIML certificate for hydrogen refuelling station



Many cars will be fuelled by hydrogen in the future. This requires a brand new infrastructure of hydrogen fuelling stations, which are produced by the Danish-Norwegian Nel Hydrogen.

With the growing demand for hydrogen, there is an increased need for hydrogen refuelling stations that also meet the international standards, and Nel Hydrogen therefore applied for a so-called OIML R138 certificate in 2021. This is a certificate developed by the International Organization of Legal Metrology (OIML). It gives future users of Nel Hydrogen's hydrogen refuelling stations a guarantee that they will receive exactly the hydrogen quantity that they pay for.

Specialists at FORCE Technology carried out the necessary investigations and conducted thorough testing of the hydrogen refuelling stations by means of, for example, EMC, flow and calibration tests before it could be approved. Based on the documentation and the test reports, Nel Hydrogen obtained its OIML R139 certificate - the first of its kind in the world. Based on the documentation and the test reports, Nel Hydrogen obtained its OIML R139 certificate - the first of its kind in the world.



## WIND

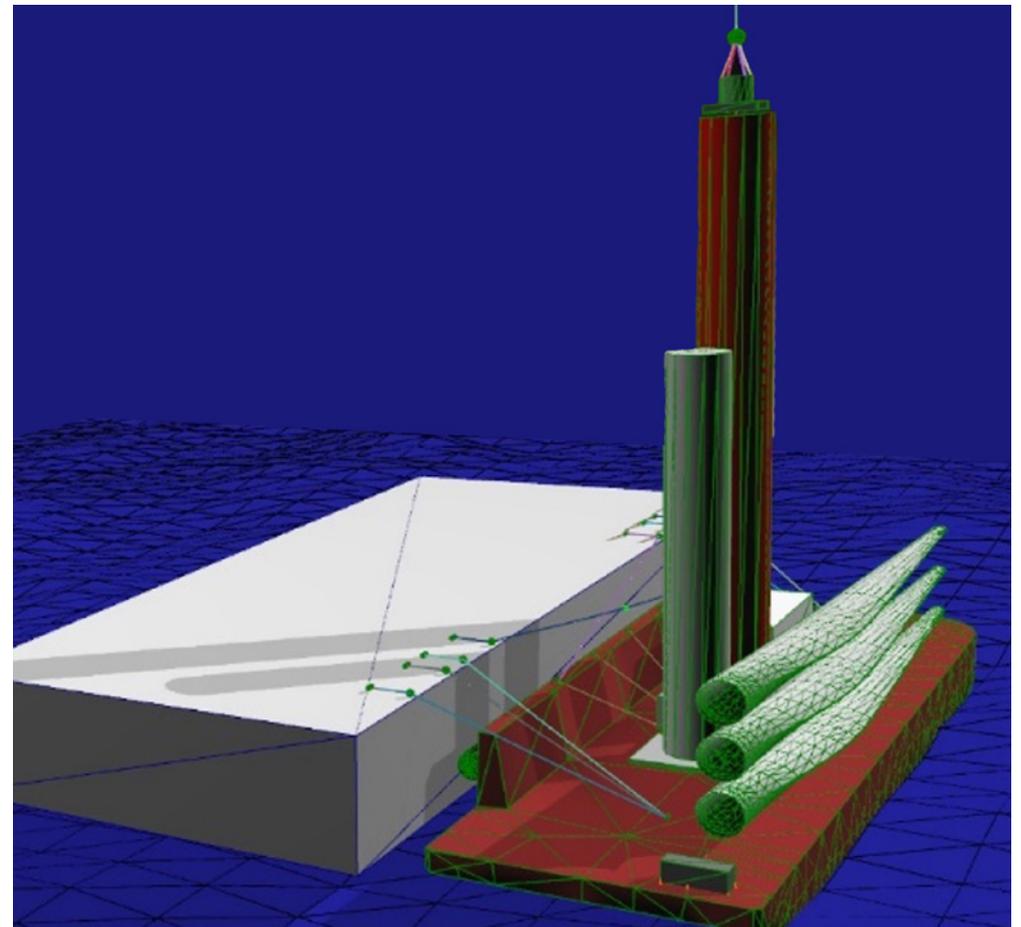
# Simulations help booming offshore wind industry



The American offshore wind industry is currently booming - especially on the East Coast. However, due to local legislation (Jones Act), the logistics solutions from Europe are not directly applicable, and there is therefore a great demand for alternatives to the transportation of the large and heavy wind turbine components from the ports to the offshore wind farms. One solution could be to use conventional transport barges for the transport, and ENABL A/S has therefore, in co-operation with FORCE Technology, developed a special movement compensating system for lifting the wind turbine components from these barges and onto the installation vessels at sea.

The system is designed by means of new simulation software developed by specialists at FORCE Technology. The software gives a clear impression of how the barge, the mooring system, the installation vessel, the crane and lifting equipment behave when impacted by wind, waves and sea currents, and it can therefore be used to optimize design and operation processes with respect to safety and efficiency.

Furthermore, the concept may contribute to reducing the energy price (LCOE) as the installation vessels may save the transit to shore for new components, which may instead be carried out by low-cost feeder barges.



## LIFE SCIENCE

# The world's first automatic swab robot is Danish



No more false positive COVID-19 test results. That is the goal for the Odense based start-up, Lifeline Robotics, which has developed a swab robot capable of performing automatic throat swabs with greater precision than a human swabber.

In just four weeks, a team of researchers from Lifeline Robotics managed to complete a prototype which was able to both prepare a test and perform the actual swab so that it just had to be delivered to the laboratory.

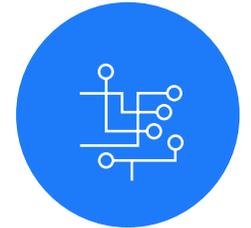
However, while the world's first swab robot was developed in a hurry it was a far slower process to get a handle on all the regulations and thus to have the robot approved as a medical device. Lifeline Robotics therefore sought help from a MADE demonstration project where FORCE Technology introduced them to the most important standards and helped lay the foundation for the company's future quality control system.

The project prepared Lifeline Robotics for entering a world of medical devices, and it became the launching pad for developing, marketing and selling the swab robot.



## DIGITAL INNOVATION OF INDUSTRIAL PRODUCTS AND PRODUCTIONS

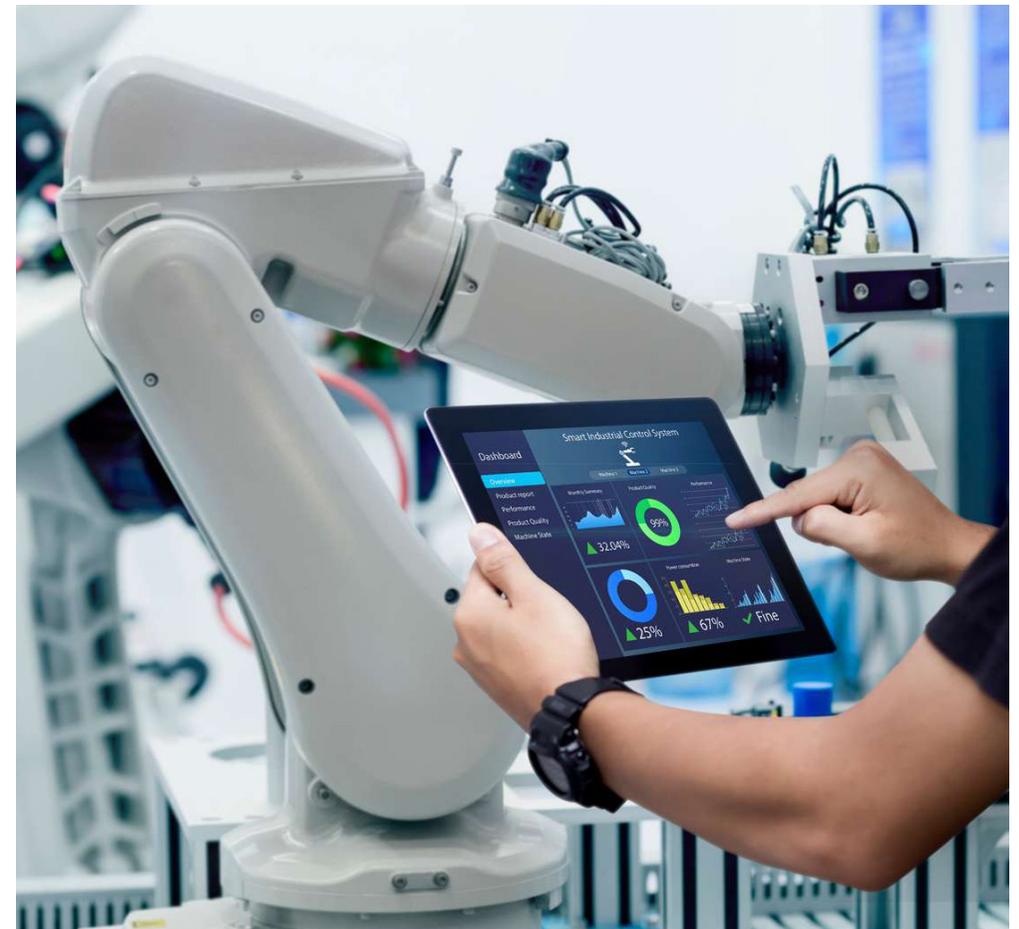
# Project speeds up digitalization in SMEs



Many small and medium-sized production enterprises have a large digitization potential which is often not realized due to a lack of resources, competences or the good business case. In the project 'The Digital Factory', which is run by FORCE Technology with support from the Danish Industry Foundation, the enterprises therefore receive help in accelerating the digital development of their production facilities.

In the coming years, a total of 18 small and medium-sized enterprises from all industries and regions will receive help in transforming their production and enabling them to launch more digitization projects themselves. The first project has just been completed, the second project has been launched and the recruitment of the other 16 enterprises is well under way.

The ability to digitize productions and production processes may be the deciding factor for a small Danish production company's ability to survive on the international market where there is competition on delivery time, price and quality. It is therefore necessary to accelerate digitization in SMEs by helping them to exploit the opportunities for optimization of production offered by new technology.



## RESOURCES AND CIRCULAR ECONOMY

# IoT and big data prolong the life of fans by up to 20 years



Large industrial fans which, for example, cool data centres or provide ventilation in multi-storey car parks have a large energy consumption. In some cases, consumption may cost up to 50 times more than the fan itself, and the fan manufacturer, NOVENCO, therefore decided in 2021 to examine how they could make their fans more intelligent and resource efficient.

The thesis was that many of the fans were overdimensioned and consumed too much energy, but in order to document this NOVENCO had to obtain more data on the fans. In co-operation with FORCE Technology, the company therefore started a project where known sensor technology for monitoring wind turbines was modified, downscaled and used for the fans.

The result was billions of new pieces of information about NOVENCO's products. This information is now used for intelligent control of the fans to ensure optimal operation, a longer service life and consumption of the least possible amount of energy. For example, lifetime models were developed for the ventilators showing that, with a few modifications, their service life could be increased by up to 20 years.



## HYBRID TESTS AND DIGITAL SERVICES

# Virtual listening panel is a supplement to real ears



Headphones are not just headphones. Loudspeakers are not just loudspeakers. Their audio design varies greatly depending on whether they are going to be used by bass-loving hip-hop fans with slight hearing loss, pod cast enthusiasts on the go or a third group.

Many manufacturers therefore use FORCE Technology's SenseLab services. Using listening panels composed of either experts or ordinary consumers, structured listening tests contribute important knowledge about the perceived sound quality.

Over the years, SenseLab has carried out hundreds of this type of physical listening tests, and the massive amount of data collected in this connection are now being used in the development of a brand new tool: a virtual listening panel.

The virtual panel has been developed with modern machine learning techniques and may provide enterprises with a tool for predicting the sound quality of a given product from the early development phase and of prototypes to be assessed internally, for example to maintain confidentiality.

The panel enables the manufacturer to make the right design decisions early in the process, ensures lower costs and provides greater certainty that the sound quality of the product matches the end user's preferences. At the same time, it is easier to focus the development process on the specific target groups and use situations.



# Corporate social responsibility

As a GTS institute, FORCE Technology plays a special role in society and therefore has particular obligations and responsibilities. We must be of use to others, and through our contribution to technological development, we contribute to creating growth and prosperity and to making a real, positive difference for people, companies and society at large.



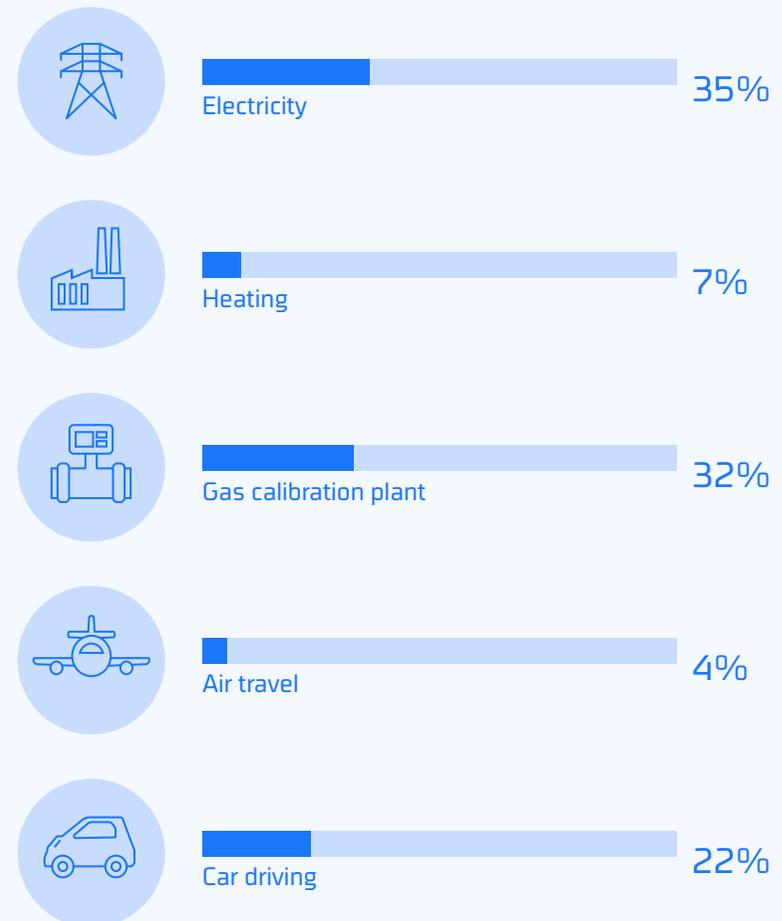
# Carbon footprint

FORCE Technology is striving to make the world more sustainable and safe, and in 2021 we therefore prepared climate accounts in order to set ambitious goals for reduction of our emission on the basis of specific data.

Emissions in  
2021: 8,161  
tons of CO<sub>2</sub>-eq

Goal in 2024: reduction of 25  
per cent compared to 2019

Emissions in 2021: 8,161 tons of CO<sub>2</sub>-eq



## Gender diversity

Being a sustainable company also involves gender equality. In 2021, we therefore signed the Confederation of Danish Industries' Gender Diversity Pledge, and on this basis we have set specific goals for gender diversity at our company.



Female employees in 2021: 22.5 %  
Goal in 2024: 25 %



Female managers in 2021: 18.7 %  
Goal in 2024: 22 %



Female board members\*  
(excluding employee-elected)  
in 2021: 25 %  
Goal in 2024: 33 %

*\*The proportion of female board members incl. employee-elected is 43 percent. An additional female member will take office in May 2022, bringing the proportion of female board members (including the employee-elected) up to 50 percent.*

# Research and development

As one of Denmark's largest GTS institutes, FORCE Technology is one of the cornerstones in a strong Danish innovation system, and through participation in research and development projects we contribute to maturing new technologies and making them accessible to Danish companies.

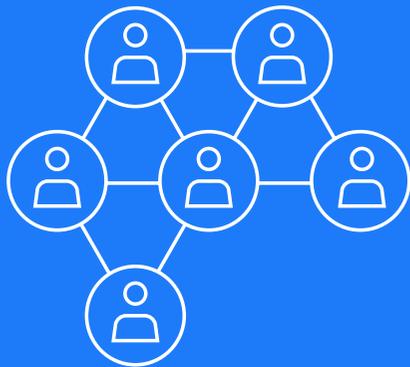
R&D revenue

**108**  
MDKK

R&D projects

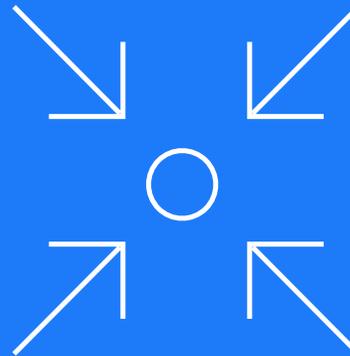
**102**





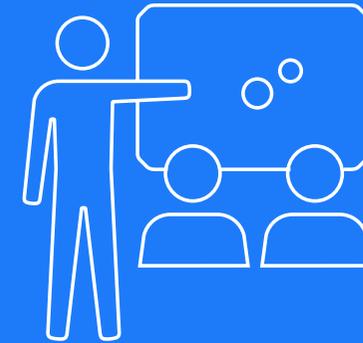
## Clusters and standards

Knowledge partner in 12 of 14 clusters  
Member of the board in 7 of 14 clusters  
Member of 85+ standardization committees



## Professional clubs

10 professional clubs  
2,000 individual members  
400 member companies

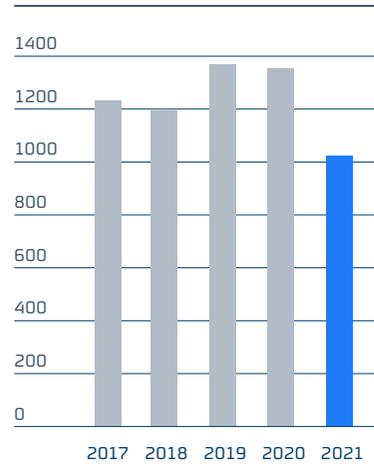


## Courses and webinars

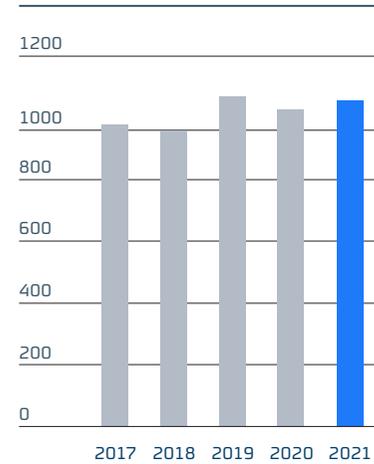
62 courses  
35+ webinars  
3,200+ participants

# Key figures

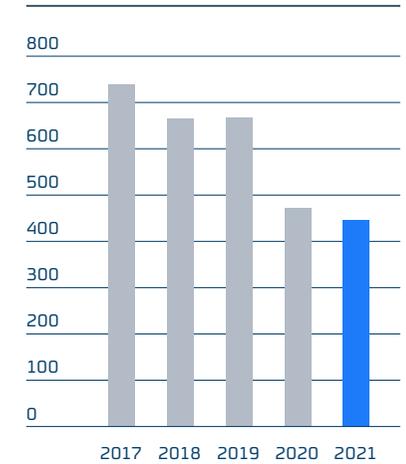
**REVENUE**  
MDKK



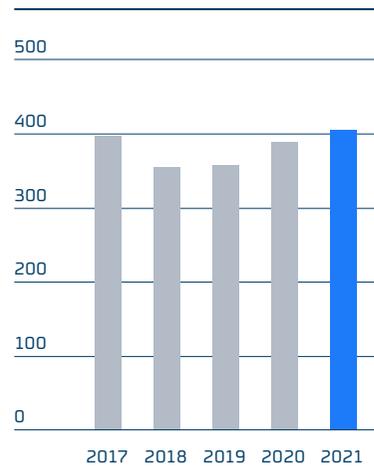
**REVENUE PER EMPLOYEE**  
TDKK



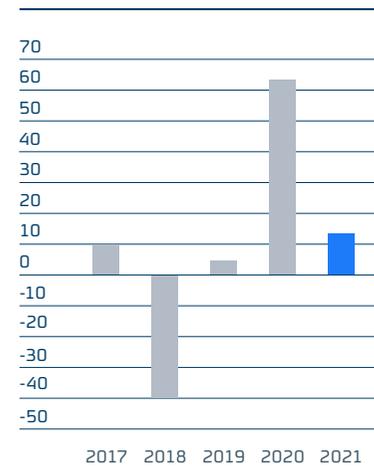
**REVENUE, INTERNATIONAL**  
MDKK



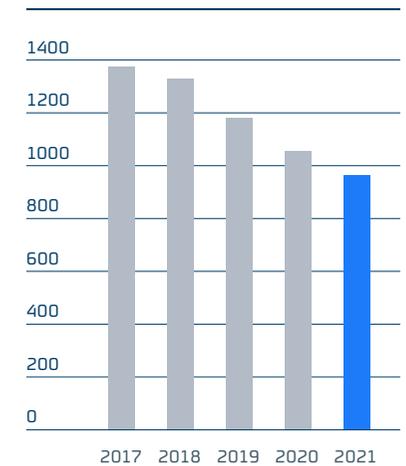
**EQUITY**  
MDKK



**PROFIT OR LOSS FOR THE YEAR**  
MDKK



**NUMBER OF EMPLOYEES**  
ANNUAL AVERAGE



# Excerpts from the Group's annual report 2021

Profit and loss account  
1 January - 31 December

	<b>GROUP 2021</b> <i>DKK 1,000</i>	<b>GROUP 2020</b> <i>DKK 1,000</i>
<b>Group revenues</b>	<b>1,018,672</b>	<b>1,084,195</b>
Other income	7,203	7,767
Direct case-related expenses, disbursements	156,003	188,715
Other external expenses	116,409	122,159
Employee expenses	<b>675,932</b>	<b>701,031</b>
Amortisation and depreciation	78,267	66,353
Special items	16,989	48,018
<b>Operating profit</b>	<b>16,253</b>	<b>61,722</b>
Profit shares	1,094	7,679
<b>Profit before interest etc.</b>	<b>17,347</b>	<b>69,401</b>
Financing, net	-1,072	-5,519
<b>Resultat før skat</b>	<b>16,275</b>	<b>63,882</b>
Tax	2,719	414
<b>Profit/loss before minority interests</b>	<b>13,556</b>	<b>63,468</b>

# Excerpts from the Group's annual report 2021

## Balance sheet as of 31 December Assets

	GROUP 2021 <i>DKK 1,000</i>	GROUP 2020 <i>DKK 1,000</i>
<b>Fixed assets</b>		
Goodwill	202	2,827
Other intangible assets	36,197	8,476
Development assets under construction	27,892	47,769
<b>Total intangible fixed assets</b>	<b>64,291</b>	<b>59,072</b>
Land and buildings	111,309	131,410
Fixtures and equipment	143,885	168,877
<b>Total tangible fixed assets</b>	<b>276,691</b>	<b>300,287</b>
Capital shares	32,727	31,627
Other financial assets	52,157	41,906
<b>Total financial assets</b>	<b>84,884</b>	<b>73,533</b>
<b>Total fixed assets</b>	<b>425,866</b>	<b>432,892</b>
<b>Current assets</b>		
Stock and work in progress	73,874	91,451
Receivables related to work in progress and completed work	194,203	172,470
Other receivables	42,859	63,754
Securities	4	4
Liquid assets	138,512	150,307
<b>Total current assets</b>	<b>449,452</b>	<b>477,986</b>

# Excerpts from the Group's annual report 2021

## Liabilities

	<b>GROUP 2021</b> <i>DKK 1,000</i>	<b>GROUP 2020</b> <i>DKK 1,000</i>
<b>Equity</b>	<b>405,228</b>	<b>389,192</b>
Other provisions	0	61,942
<b>Total provisions</b>	<b>47,662</b>	<b>61,942</b>
Prepayments	3,064	3,626
Mortgage debt	117,619	122,471
Holiday pay provisions	56,362	59,478
<b>Total long-term debt</b>	<b>210,454</b>	<b>185,575</b>
Short-term part of long-term liabilities	4,850	4,852
Bank debt	734	10,713
Creditors and accrued expenses	38,390	37,163
Pre-payment and pre-invoicing	33,148	34,622
Other debt	60,561	186,819
Total short-term debt	211,974	274,169
<b>Total debt</b>	<b>422,428</b>	<b>459,744</b>
<b>Total liabilities</b>	<b>875,318</b>	<b>910,878</b>



## **FORCE Technology**

**Head Office**  
Park Allé 345  
DK-2605 Brøndby  
Denmark

Telephone +45 43 25 00 00  
[info@forcetechnology.dk](mailto:info@forcetechnology.dk)

[forcetechnology.com](http://forcetechnology.com)