

# Annual Report 2018





$\mathbf{n}$	nt		n	ГС
U	IIU	.С		ts
		-		

03	Management review
07	The future starts today
11	Knowledge is something we share
13	At our clients' service
15	FORCE Technology at a glance
17	Key figures
20	Extract of the consolidated Annual Repo
23	Management

25 Addresses

ort 2018

### Management review 2018

#### A challenging 2018

The year 2018 took a negative financial turn following a profitable 2017. The group's earnings before interest and tax equalled DKK -51 million, which was significantly less than expected.

FORCE Technology is a very diversified company. The unsatisfactory financial performance is a result of various circumstances pertaining to the company's different business areas, where positive as well as unsatisfactory results have been realised.

FORCE Technology Denmark includes a substantial and stable core business, which has contributed to positive results in 2018 and is experiencing growth. The business areas are characterised by a widespread customer intervention in Denmark, as well as internationally. Meanwhile, project-based business areas with fewer and primarily international customers have experienced significant challenges in 2018, which has entailed a very unsatisfactory result. These areas are characterised by large, single contracts, which are individually responsive to the business cycle in each of their markets.

In Norway, the first half of 2018 continued to be influenced by negative developments in the oil and gas market. However, with increased market efforts and significantly better market conditions in the second half of the year, FORCE Technology Norway achieved an acceptable operating result overall under the given market conditions. FORCE Technology Norway chose not to pursue onshore inspection in 2018, while focusing on offshore activities instead, as well as assuming high costs for restructuring. Thus, FORCE Technology Norway has improved its potential for future earnings significantly. FORCE Technology Sweden continues to experience strong competition in the NDT area, where price is the primary market parameter. Even though measures have been taken to improve activity and earnings in 2018, FORCE Technology Sweden is still not profitable, although the electronics testing area still experiences positive growth.

### Many prosperous seeds have been planted

Even though 2018 took a negative turn in terms of financial performance, FORCE Technology has achieved several positive results pointing towards the future.

Across FORCE Technology, digitalisation continues to leave a big imprint, especially benefitting customers on a long- as well as short-term basis. FORCE Technology is in the midst of a transformation from traditional single services to coherent digital solutions. Building on 80 years of expertise within domain knowledge, as well as practice-oriented experience, FORCE Technology continues to launch new data-driven and domain-specific solutions and services.

Especially in the unique interdisciplinary approach of FORCE Technology, lies a strength in delivering value-adding services to the industry and a means to solve the complex societal challenges of the future. The innovations FiGS® and P-Scan Stack are just a few of many examples of our success in utilising this interdisciplinary approach, where domain-specific experience in combination with digital technologies create unique solutions in the market.







The P-Scan Stack system is based on year-long technical experience with – among other things – ultrasound inspection, material analysis and metrology, combined with special hardware and software competencies, the latest digital technologies, and combining knowledge of specialists across countries and fields. Digitalisation is an important factor in the further development of core business areas, such as NDT inspection, and as product testing benefits from the development of multiphysical digital twins and advanced real-time monitoring.

In 2018, FORCE Technology has also strengthened the Nordic IoT Center in partnership with the Alexandra Institute and initiated the project Servitize.dk with support from The Danish Industry Foundation, which in the coming years will assist the industry in the transformation from traditional order-producing businesses to integrated service suppliers, based, among other things, on digitalisation. Finally, FORCE Technology succeeded in 2018 in achieving a large number of research and innovation projects pointing towards the future.

At the end of 2018, FORCE Technology achieved a strong and focused performance contract with the Danish Ministry of Higher Education and Science, including a significant investment in the development of future technological services and infrastructure, to the benefit of the industry and society. Besides a number of core specialisation activity plans, the contract cements FORCE Technology's position and future within digital solutions of industry-related issues with big societal potential. The contract includes the development of future services based on machine learning, IoT, digital twins, and more.

These efforts plant the seeds of a further acceleration of new, value-added technological services for the future. Meanwhile, FORCE Technology continues investments in laboratories and facilities, which help secure the basic infrastructure whereon the industry can base their future development. In 2018, FORCE Technology has made investments exceeding 82 MDKK.

#### Favourable prospects for 2019

The beginning of 2019 indicates that many of the positive activities and efforts at FORCE Technology have a positive effect on the results. Project-based business areas have had a much smoother start to 2019, and the prospect of continued growth has improved significantly. These business areas will take a number of measures with the purpose of improving robustness to market fluctuations.

Meanwhile, the core business in Denmark continues to grow, with a stable and positive effect on profitability. In Denmark especially, FORCE Technology has a broad and deep collaboration with the industry, which will further expand over the coming years based on our independent role as a Danish government-approved Research and Technology Organisation, which helps the industry through the entire value chain with unique competencies and facilities.

In Norway, there is an increased demand in the oil and gas market. This has a positive effect on the activity level as well as earnings from the beginning of 2019.

From the beginning of 2019, FORCE Technology Sweden experienced a continued competitive market with difficult conditions for growth. The challenges for FORCE Technology in Sweden have been significant and long-term. Consequently, in May 2019, FORCE Technology has entered into an agreement to sell the majority of its Swedish activities, primarily manual Inspection and Testing. FORCE Technology will continue to be active in Sweden with Product Compliance and emission activities.

FORCE Technology subsequently wishes to focus the group's Inspection and Testing activities in the local Danish and Norwegian markets, while there will be a continued international focus for FORCE Technology's automated inspection and testing activities. For the group overall, FORCE Technology expects a small profit in 2019. Significantly improved conditions for the project-based business areas add to the growth of the stable core business.

Continuing in 2019 and on to 2020, the transformation of FORCE Technology will continue. The aim is to leverage the uniqueness of the diversified organisation in order to create a more cohesive business. By focusing, FORCE Technology will be able to realise even greater potential.

The transformation is not only digital and related to service. It also extends to structure and culture. FORCE Technology has one indispensable commodity: Passionate and talented people. Hence, FORCE Technology continues to build on an organisation and a culture, which attracts and develops talent. Through professional development of skills, facilities, and services, FORCE Technology constantly evolves towards new and unique fields, where highly specialised technological knowledge is translated into valuegenerating solutions.



Juan Farré *CTO*  Frederik Smidth Chairman of the Board

#### Innovation for the benefit of society

Every year, FORCE Technology interacts with thousands of Danish and international companies facing one or more technological challenges. We have done this for the past 80 years as the backbone of the Danish innovation structure securing an efficient and independent dissemination of new knowledge and technology to Danish businesses and society. In those 80 years, technologies and industries have changed, but the function has stayed the same, and more and more companies benefit from it.

Innovative solutions are being developed in open co-operation. FORCE Technology is Denmark's biggest of its kind and one of the largest independent technological service companies in Northern Europe. That is why we, together with other competent knowledge institutions, will take active ownership in the future to achieve a strong ecosystem, in order to resolve societal challenges through industrial strengths.

Øjvind Andersen Clement *CEO* 

Jesper Haugaard *Vice-chairman* 

# The future starts today

Climate change, rising numbers of elderly and chronically ill people, decreasing biodiversity, and increased urbanisation. There is no shortage of challenges facing society worldwide. We hold a broad belief that as questions regarding the planet's future pile up, new technology is the answer.

#### **Global movements**

With the UN's 17 Global Goals - to say nothing of the 169 targets - the world has united in support of a shared ambition never seen before, and one that is much more concrete than previous ambitious plans. For this reason, the Global Goals are also more than mere symbols of a common calling. They are expected to create business for innovative and visionary companies with the ability to transform challenges into sustainable solutions.

For the majority of these goals for a better world, technological solutions are among the most promising answers. New technologies, or new uses for existing technologies, will enable us to not only handle the development, but also reverse or redefine it in many areas. Additionally, across technological solutions, digital solutions tick all the boxes, handling the development quickly, effectively, and affordably.

#### We started the future

Most businesses plan developments only a few months ahead, or have an immediate need for technical assistance. Digitalisation, disruption, globalisation, and demanding consumers all put pressure on businesses' ability to act with agility and on short notice. However, succeeding in the long term requires a partner that can offer longterm support and continuous, impartial technological foresight.

In 2018, FORCE Technology entered into one of the largest, most ambitious Performance contracts with the Ministry of Higher Education and Science, concerning the future preparedness of technological services, infrastructure, and skill sets to benefit society and industry. This Performance contract encompasses 30-odd activity plans, each of which will be highly significant to a particular technological area - and altogether, to the technological services of the future.

Across these activity plans, digitalisation and digital technologies are in leading positions. Most of these activities are focused on getting the industry into a state where it can develop digital solutions based on both new technology and methods that provide robust and secure solutions for environmental and utilitarian impacts.

#### Digital twins and virtual tests

Every day, the industry uses FORCE Technology's infrastructure, comprising hundreds of facilities and advanced laboratory equipment. Physical facilities and equipment. The future holds a supplement to and extension of these in the form of virtual tests, for testing of physical and digital products alike. FORCE Technology is developing the skill sets necessary to develop and test digital twins, which are unique, multiphysical representations of a corresponding physical product being designed or in operation. Using multiphysical simulation tools and digital twins, new possibilities arise for predicting the future operation and condition of physical products. In coming years, FORCE Technology will offer new services in the spheres of product innovation and operation optimisation based on multiphysical models and simulation tools. This will affect products with solid mechanical, fluid mechanical, electronic, and acoustic properties.

Virtual tests and simulations will be developed in the same period to supplement physical testing in such areas as sensors, sound engineering, hydrodynamics, and aerodynamics. This will benefit a wide array of industries, such as the clean air, hearing aid, construction, wind, and maritime industries.

#### Assisted artificial intelligence (AI)

To a significant extent, the development of digital solutions at FORCE Technology will be based on AI, machine learning, numerical calculations, and empirical databases.



We store wafers in a clean room, in a so-called "wafer hotel". Here, wafers can be stored for up to two years, protected from corrosion by the addition of nitrogen to the individual compartments.

#### >

In practical terms, all specialised fields of FORCE Technology have a year-long tradition of metrics, involving large volumes of historical data that may contain patterns that can then be converted into new solutions, services, and predictive models. FORCE Technology engages in comprehensive data collection from e.g. noise, emissions, and ultrasound measurements, test facilities, welding inspections, and material analyses.

Particularly when combined with our first-hand experience, machine learning is highly relevant as our specialists support Al systems to become more and more precise over time. Al will thus not only become a path to more effective solutions for our specialists, but also a contributor to producing new knowledge, giving our specialists new insights into the physical and digital world for use in future services.

This means that in the future, we will be able to increase the efficiency of our clients' asset management through deeper insight into the load of structures, using in situ sensory science and monitoring. We will deliver solutions that provide end-to-end transparency in businesses' supply chains based on real-time monitoring, while automatic evaluation of complex sensor data will reduce the need for demanding manual analyses of e.g. composite materials, welding joints, and concrete constructions.

#### Robust products and materials

As with anything else, the market is the final test for every digital technology and product. This is where products are judged on how well they meet users' expectations, and how well they fulfil the requirements of standards and regulations. In the coming years, we will further equip ourselves to service the industry with those skill sets and services that are needed to bring robust and secure products and materials to market. Throughout the years to come, FORCE Technology will be developing a proactive paradigm for electronic product reliability, ensuring our clients' products are of high quality and robustness in the face of aggressive environmental effects. The same goes for selecting materials, which will be made even more sustainable by minimising risks and avoiding overly conservative designs and choices of material.

Standards and legal metrology are also subject to change from digitalisation. FORCE Technology maintains a metrology infrastructure that uses digital technologies to make it possible to deliver new testing and calibration strategies in support of the businesses' own supervisory practices, among other benefits. In addition, FORCE Technology is involved in standardisation for i.a. cybersecurity and additive manufacturing, supplementing the 100-plus standardisation committees on which we are already represented.

In the future, all products will need to be capable of communicating not only with the internet, but with each other. For this reason, FORCE Technology is establishing an ecosystem for IoT solutions to ensure that more businesses successfully bring IoT systems to market, through collaboration between different partners and skill sets.

Partnerships in particular are a focal point of the entire Performance contract. The activity plans entail comprehensive collaboration with universities and schools, both at home and abroad, followed closely by industrial advisory boards set up to contribute to developments in technology and skill sets.

At bedreinnovation.dk, you can follow these activities across all the GTS institutes and read more about them. [GTS is an acronym for "Approved Technological Service" in Danish.]



We use both Augmented Reality (AR) and Virtual Reality (VR) in numerous testing services, and to create lifelike situations when training our clients' employees.

# Knowledge is something we share

Knowledge is essential to being able to offer competitive technological services and products. But at FORCE Technology, knowledge is not something we keep to ourselves. Knowledge is something we share.

#### Increasing complexity

Larger and smaller. Longer and shorter. Taller and deeper. Costlier and cheaper. Technological developments move in all directions. These days, they seem to be almost exploding, since new digital technologies increase the speed of research and development, among other reasons. This leads to the revitalisation of many fields of technology. Wind turbines are getting larger; hearing aids are getting smaller. Life cycles are getting shorter for consumer products, but longer for advanced industrial materials.

FORCE Technology covers a breadth and depth of technical disciplines and through our development plans this will increase the value creation for the target groups and sectors that we provide services to.

Each year, we meet more than 10,000 businesses that need impartial, knowledge-based technological service. Throughout all the years, the technological service has thus been based on the needs of society and of the business world, accommodated by latest results in research and development. For nearly 80 years, FORCE Technology has served society and industry through industrial and technological revolutions, bringing the latest knowledge into practical application.

#### Knowledge sharing

Every year, more than 5,000 people take a course or receive professional instruction or knowledge transfer in some other way from FORCE Technology. The continuing education of our clients' employees forms the basis of their certification or upgrading of qualifications as new technologies or requirements change the market conditions. In a time where talent is fought over. it is especially important for businesses to ensure continuing education of their employees, and for society as a whole to have a well-qualified workforce. Whether that means specialisation in an existing field or brand-new qualifications in changing fields, FORCE Technology offers continuing education of employees.

Correspondingly, we have an increasing number of employees attached to educational institutions as external instructors, supervisors, and examiners. FORCE Technology typically contributes experience-based technical knowledge to supplement theoretical education for new generations of engineers and others with a technical education.

#### Knowledge gathering

In addition to knowledge sharing through formal training and education, FORCE Technology holds over 100 seminars, workshops, and conferences per year either independently or as a contributing organiser. The business world can keep up with the latest knowledge from FORCE Technology and other knowledge sources around the world. We gather knowledge from international standardisation, conferences, and knowledge institutions and develop new knowledge in co-operation with the universities. And we share all of it. Knowledge is of no benefit until it is shared and used.

To that end, we publish articles, handbooks, and papers that preserve knowledge in a lasting form that is applicable in its users' day-to-day lives.



#### Knowledge clubs

Knowledge develops over time and with other people. This is the reason why FORCE Technology is always looking for better ways to bring knowledge into play among our clients and partners. Just as many people attend sporting clubs to improve their skills and fitness, professional clubs and networks are successful means of improving your knowledge. FORCE Technology runs numerous clubs, comprising nearly 350 member businesses and more than 1,500 persons.

For many companies, these clubs are the only continuing education opportunities available, given the already highly specialised nature of their technical skills. These clubs also provide a private space in which businesses facing similar technical challenges can exchange knowledge, and in which access to special member reports can be given.

Clubs exist for reliable electronics, food contact materials, pressure calibration, legal metrology, and more. In the Danish Audio Club, members gain unique insight into the latest developments in sound reproduction and techniques for qualification of sound quality, across industries and countries. In the IoT & Wireless Club, members can follow international standardisation efforts closely and conduct hands-on experiments with like-minded individuals. The EMC Club has been



In 2018, FORCE Technology held 354 courses, and more than 100 knowledge sharing events in Denmark.



FORCE Technology has more than 30,000 unique visitors to its website each month.



In 2018, FORCE Technology produced 213 posters or conference presentations.

holding monthly meetings for decades, where members can discuss new emission requirements and immunity designs. Simultaneously, membership in the club comes with access to special do-it-yourself test facilities, in which businesses without their own facilities can run their own experiments and test their way to better products and designs.

Businesses are constantly faced with new challenges and opportunities, all of which must be met with new knowledge. FORCE Technology is here to support its clients in doing so. Knowledge is something we share.



In 2018, FORCE Technology had 250 partnership agreements with Danish and international research institutions.

## At our clients' service

The modern society is based on security. Warm water comes out of the tap. The streets are lit. Food arrives fresh. Based on public needs, and on national and international standards, the business world develops solutions and technologies that create the conditions for a modern society.

#### Peace of mind and value creation

Society and business depend on security and peace of mind. Every year, more than 10,000 clients trust FORCE Technology with their products, materials, or structures. Their latest opportunities or their worst challenges, all requiring in-depth, highly skilled expertise and unique facilities. FORCE Technology's contribution to the industry and to society rests upon four pillars.

#### Inspection, measuring, and data acquisition

We meet our clients at their place, through advanced on-site inspection, measurement, and data acquisition on bridges, oil platforms, wind turbines, construction sites, and more. Our clients choose FORCE Technology for competent, quick, and flexible support. For some, it reduces risks and production downtime; for others, it ensures consumer protection and conformance with applicable regulations.

#### Testing, calibration, and analysis

We meet our clients in our comprehensive and unique infrastructure of facilities and laboratories for testing, calibration, and analysis. Our clients choose us for impartial and accredited support. For some, this provides validation and market access; for others, it provides quality assurance and design optimisation.



#### Products, components, and sensor systems

We meet our clients with products, components, and sensor systems. Combined with FORCE Technology's knowledge, they provide decision-making support, integrity management, and extended lifetimes for structures, or they add new, value

creating features and intelligence to our client's own products.

#### **Counselling and training**

We meet our clients in all areas with specialist counselling and training, giving them value by combining multidisciplinary, experience-based skill sets with



the latest knowledge from research and development activities.

Overall, FORCE Technology creates peace of mind, security, and value for clients and society, based on impartiality as an Approved Research and Technology Organisation. The return society gets from

#### its investment in FORCE Technology is not only an economic one, but also one that can be measured in terms of technology, professionalism, and impact.

**Technological infrastructure** 

Analyses show that especially testing and demonstration facilities are particu-



larly significant to businesses' investments in research and development, and in new products and production methods One of the distinguishing aspects of FORCE Technology is its comprehensive portfolio of technological infrastructure in the form of facilities. laboratories. accreditations, and EU notifications.

Technological development is progressing ever more quickly, putting pressure on businesses to launch new products quickly - which, in turn, are profitable for much less time than they once were. To support businesses, FORCE Technology invests in a world-class infrastructure and produces models for collaboration with the industry and the universities to create a coherent offering. Recently, in co-operation with the six other GTS institutes in Denmark, FORCE Technology has launched a common portal, teknologiskinfrastruktur.dk, to make it easier for businesses to find relevant facilities.

Altogether, this infrastructure of facilities and specialised equipment enables FORCE Technology to deliver more than 5,000 inspection reports, and several thousand more testing reports, every year. The resulting technical documentation serves as a foundation for the security and peace of mind on which the business world and society depend.

# FORCE Technology at a glance

FORCE Technology is an international technology consultancy and service company. Based in Scandinavia, FORCE Technology makes a global footprint. With a strong infrastructure of facilities and skill sets, we advice and service our clients globally in the energy and environment industries, the electronics industry, the lifescience industry, the food industry, the oil and gas industry, and in the maritime industry, among others.

We have branches in Denmark, Norway, Sweden, the United Kingdom, Singapore, China, and the United Arab Emirates.



#### COUNTRIES

FORCE Technology provides services to clients from more than 70 different countries throughout the world.



#### CLIENTS

FORCE Technology provides services to thousands of Danish and international clients, both private and public, every year.



#### INTERNATIONAL TURNOVER

More than half of FORCE Technology's turnover comes from international clients, through exports and activities in other



# 5,000+

#### **COURSE PARTICIPANTS IN 2018**

We share our knowledge through more than 400 courses and events each year, as well as with over 350 businesses in our network and professional clubs.



# 1,400

#### **EMPLOYEES**

• Dr. and PhD - 4%

- Postgraduate degrees 24%
- Other technical staff 51%
  Other non-technical staff 21%



#### NEW R&D PROJECTS IN 2018

In 2018, we launched more than 35 new research and development projects in such fields as IoT, materials technology, bioenergy, microelectronics, and sensor technologies.



#### UNIQUE FACILITIES

FORCE Technology possesses one of Scandinavia's largest collections of unique facilities and laboratories that ensures e.g. testing, demonstration, and documentation of new technologies and products.



#### COLLABORATION PROJECTS

FORCE Technology is partnered with all the Danish universities, as well as many international universities, to secure our clients' access to future technology and knowledge, keeping us at the forefront of the technological development.



#### DISCIPLINES

FORCE Technology comprises numerous highly specialised business areas, offering services to clients from their first idea, through development and testing, up to certification and inspection.

# **KEY FIGURES**

#### TURNOVER MDKK



#### TURNOVER PER EMPLOYEE TDKK



#### TURNOVER, ABROAD MDKK



2014 2015 2016 2017 2018

#### CAPITAL AND RESERVES

MDKK



#### PROFIT FOR THE YEAR MDKK





#### NUMBER OF EMPLOYEES AVERAGE PER YEAR



2014 2015 2016 2017 2018



One part of the microelectronics supply chain is chip testing. We have advanced testing equipment, including a wafer prober and handling equipment sufficient to deliver as many as 50 million components per year.



# Extract of the consolidated Annual Report 2018

Profit and loss account 1 January - 31 December

-		
Conso	lidatec	turnove

Other operating income

Expenses directly related to projects, outlays

Other external expenses

Personnel expenses

Depreciation and write-downs

Operating profit

Share of profit or loss

Profit before interest, etc.

Financial income and expenses, net

Profit before tax

Тах

Profit before minority interests

Minority interests

Profit for the year

Consolidated company	
2018 DKK 1,000	2017 DKK 1,000
1,278,725	1,346,361
3,447	18,803
248,432	280,559
151,760	142,474
858,140	866,164
74,776	79,591
-50,936	-3,624
1,099	1,044
-49,837	-2,580
8,939	8,979
-40,898	6,399
-733	-3,468
-40,165	9,867
32	13
-40,133	9,880

# Extract of the consolidated Annual Report 2018

#### Balance as of 31 December

Assets

	Consolidated company	
	2018 DKK 1,000	2017 DKK 1,000
Fixed assets		
Goodwill	6,387	10,485
Other intangible assets	7,994	6,789
Development projects under construction	22,297	7,509
Total intangible fixed assets	36,678	24,783
Land and buildings	140,526	153,358
Equipment under construction	6,781	2,004
Furniture and equipment	228,398	226,118
Total tangible fixed assets	375,705	381,480
Participating interests	35,066	34,721
Other financial assets	936	1,443
Other financial fixed assets	36,002	36,164
Total fixed assets	448,385	442,427
Current assets		
Contract work in progress	112,106	122,429
Debtors, work in progress and completed work	248,593	264,439
Other debtors	51,769	49,317
Securities	4,428	15,007
Cash and bank balances	16,316	34,618
Total current assets	433,212	485,810
Total assets	881,597	928,237

#### Liabilities

Capit	al and reserves
Mino	rity interests
Defer	red taxes
Othe	r provisions
Total	provisions
Prepa	ayments
Mort	gage debt
Total	long-term debt
Short	term part of long term debt
Bank	debt
Credi	tors and accrued costs
Adva	nce payments and invoicing
Othei	r creditors
Total	short-term debt
Total	debt
Total	liabilities

Consolidated company	
2018 DKK 1,000	2017 DKK 1,000
355,812	397,687
97	128
1,797	449
1,127	3,688
2,924	4,137
4,850	5,463
132,198	97,789
137,048	103,252
4,844	28,155
88,656	100,663
65,408	64,980
32,136	34,453
194,672	194,782
385,716	423,033
522,764	526,285
881,597	928,237

# Management

#### Board of Directors

**Frederik Smidth** Chairman of the Board Vice President, Maersk Drilling

**Jesper Haugaard** Vice-chairman Director, Con-Wise

**Tove Feld** Head of Projects, New Bio Solutions Ørsted **Per Michael Johansen** Rector Aalborg University

**Jesper Thomassen** President Nordic Sugar A/S **Daniela Bach** Polymer Specialist Employee Representative

Anders Struwe Mynster Senior Consultant Employee Representative

**Kirsten Grønning Sørensen** Specialist Employee Representative

#### Management

Øjvind Andersen Clement Chief Executive Officer **Juan Farré** Chief Technology Officer

#### **Specialist Directors**

**Bo Christensen** Director Finance & Administration **Jens Roedsted** Director Business Development **Lars Vesth** Director Digital Innovation & IT

#### **Operational Subsidiaries**

FORCE Technology Sweden AB **Per Gelang** Managing Director

DELTA Development Technology AB **Bo Christensen** Managing Director FORCE Technology Norway AS Leiv Låte Managing Director FORCE Certification A/S **Niels Ovesen** Managing Director

> Our team of experts advises clients on microchip packaging choices. We offer advice on how to lower production costs, improve parformance and reliability, and more

## Addresses

#### FORCE Technology International

FORCE Technology

#### FORCE Technology ME LLC Office 938, ADNIC Building

West Corniche, Abu Dhabi

United Arab Emirates

Tel. +971 2 444 3556

Fax +971 2 443 6078 info@forcetechnology.ae

Khalifa Street

Po box 36818

**Sweden AB** Tallmätargatan 7 721 34 Västerås Sweden Tel. +46 (0)21 490 3000 Fax +46 (0)21 490 3001 info@forcetechnology.se

#### FORCE Technology Norway AS

Nye Vakås vei 32

1395 Hvalstad Norway Tel. +47 64 00 35 00 Fax +47 64 00 35 01

#### FORCE Technology

Maritime Simulation Services Pte Ltd

1 CleanTech Loop, #03-03 CleanTech One 637141 Singapore Singapore Tel. +65 6684 0737 info@forcetechnology.sg

#### FORCE Technology

**(Beijing) Co., Ltd.** Room 707, No. 6, Ritan Road Sun Joy Mansion Chaoyang District, Beijing 100020 Beijing China Tel. +86 10 85306399 Fax +86 10 85306399 info@forcetechnology.cn DELTA Development Technology AB Elektronikgatan 47 721 36 Västerås Sweden Tel. +46 (0)21 31 44 80 Fax +46 (0)21 31 44 81 info@delta-dt.se

#### DELTA Microelectronics Ltd.

Tredomen Innovation & Technology Centre Hengoed CF82 7FQ Ystrad Mynach United Kingdom Tel. +44 1443 866322 Fax +44 1443 866324 delta@delta.dk

You can find all of our international locations at www.forcetechnology.com

FORCE Technology's Annual Report 2018 has been published in Danish and English

Front page: FORCE Technology measures the bolt tightness on the Storebælt Bridge.



#### FORCE Technology

**Headquarters** Park Allé 345 2605 Brøndby Denmark

Tel. +45 43 25 00 00 Fax +45 43 25 00 10 info@forcetechnology.dk

forcetechnology.com

4901-2-en

