

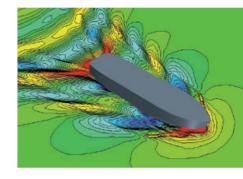


CONTENTS

MANAGEMENT'S REVIEW	2
FORCE Technology increases activity level as well as revenue despite great changes in the market	3
Key figures	7
ABOUT FORCE TECHNOLOGY	8
BUSINESS AREAS	10
FROM THE PAST YEAR	16
FORCE Technology contributes to the resource economy of the future	18
Contractor's inspection for DONG Energy Wind Power	19
Pioneering work within legal metrology on flow meters	20
Root cause analysis of water ingress into Emma Mærsk	21
Designing grand structures	22
Design evaluation and test of new Icelandic ferry	23
Complete ultrasonic system for test and production control of wind turbine blades in Korea	24
Signature paves the way for clean air above China	25
One hundred percent thickness measurement	26
Production control on pipeline from China	27
Tanker operations in the Rio Magdalena	28
Innovative X-ray measuring system for the plastic pipe industry	29
Validation of global competency	30
Disinfection of hospital mattresses with green technology	31
One more simulator for Svitzer	32
Optimised composite materials improve competitiveness	33
TwinEye X-ray measuring system monitors flexible pipes in Brazil	34
Inspection of thousands of welds in a new power station	35
SAFETY AND WORK ENVIROMENT	36
EXTRACT OF THE CONSOLIDATED ANNUAL REPORT	38
BOARD OF DIRECTORS & MANAGEMENT	42
ADDRESSES	44











FORCE Technology increases activity level as well as revenue despite great changes in the market

The FORCE group did not obtain the expected growth in 2014 as the demand in both the Danish and the Swedish market was weak, while the Norwegian demand remained attractive. As in 2013 there are significant geographical and sectorial differences in the market – some markets/industries are growing and others are in decline. Those facts combined with a significant strengthening of the Danish krone against the Swedish and Norwegian kroner, causes that net growth in consolidated revenue has only been 3.6 %.

During fall 2014 we sold our 100 % owned Russian subsidiary to the Management of the company. The reason why is partly, that prospectively FORCE Technology is not the right owner and partly the geopolitical situation in the area.

The level of investment is still high and new products are launched on the market by the end of 2014 and others will be launched during 2015.

The innovation and information activity is maintained at a high level, and this will continue in 2015.

Development in turnover and profit

The group turnover in 2014 was MDKK 1,225 against MDKK 1,182 in 2013, representing an overall increase of 3.6 %. The increase covers a turnover growth in local currency on 4.6 % in Denmark and 17.5 % in Norway. Sweden has had a decrease of 9.9 % from 2013 to 2014 primarily due to low activity in the energy- as well as the production industry. The weighted overall growth on 3.6 % is due to a remarkable stronger Danish krone – compared to the other two currencies – the weighted overall growth is 6.4 %. The Group's operating profit for 2014 was MDKK 29 against MDKK 28.8 in 2013. The result is satisfactory.

Denmark has continuously high development and innovation efforts with a satisfactory turnover and profit performance

FORCE Technology Denmark has in 2014 achieved a turnover of MDKK 778 – an increase of 4.6 % compared to 2013. The market is still competitive and is characterized by the lack of growth continuously in the EU including Denmark and Sweden.

The result of the operating profit in 2014 was MDKK 23.9, which is 38 % better than in 2013 and is considered satisfactory.

The reason for the satisfactory turnover and profit performance is primarily that the inspection and testing activities matches the level of demand in the market again. An efficiency improvement has been accomplished in this area, which increases the competitiveness. Another primary reason for the positive development is that the increased turnover is realized without similar increase of head office costs.

Our development of a new 'state-of-the-art' automated ultrasonic system together with the establishment of calibration facilities - from the smallest meters to the largest - for high pressure natural gas calibration, has been delayed. Therefore the expected positive effect on turnover as well as profit in 2014 will not be made effective before in 2015.

We have sold the first SonoSteam equipment – an equipment using steam and ultrasound removes microbial bacterias – in this case in a poultry slaughterhouse in England. The equipment will not affect the financial records until 2015.

Sweden affected by low activity in the energyas well as the production industry

The turnover for FORCE Technology Sweden AB was MDKK 175 against MDKK 205 in 2013. The decrease in the revenue is primarily due to a lesser demand in the energy- as well as the production industry, and also the previously mentioned development in currency exchange rates (DKK/SEK). The result from operating activities is MDKK 1.5 against MDKK 4.5 in 2013. The result is considered unsatisfactory.

Norway increases activity level significantly but with recessive profit

The turnover for FORCE Technology Norway AS amounts to MDKK 296 representing an increase of 9.2 % against 2013. The currency exchange rate development (DKK/NOK) covers a solid increase in turnover on 17.5 %. The result from operating activities is realized at MDKK 6.8 against MDKK 13.5 in 2013.

The decrease of the result is primarily due to poor project management on one single project. This has been



corrected. Despite of development the turnover as well as profit performance is considered satisfactory.

Strategy for significant European knowledge centre with Scandinavian origin – seen in the light of big changes in the global market

Since 2000 the Group has stuck to pursuing its growth strategy as regards activities – the turnover in 2000 was just under MDKK 400 and MDKK 1,225 in 2014 – as well as regards applications. The strategy has proven sustainable, also in times of crisis. This way we fulfil our tasks for society, enabling us to keep servicing our customers with optimum technological

While maintaining a responsible financial development, we keep the Group fit for the future regarding knowledge and financing. This is especially important at a time of crisis. FORCE Technology is financially solid and can – even in times of crisis – raise the necessary capital for both promising innovative applications as well as its own growth.

An intensely decrease on oil prices has affected FORCE Technology's potential for growth, since it is assumed that the demand in connection with investigation- and construction work will be reduced. Accordingly prices on maintenance tasks will be forced down, while lifetime extension projects will continue almost unchanged.

On this basis we expect a moderate increase of growth in 2015 and will continue to focus on organic growth, at the top as well as the bottom lines.

The objective is hereby to adapt, strengthen and streamline the organisation to take advantage of the current opportunities in a globalised world of rapid change and continual temporary crisis.

On the short term, FORCE Technology works on a number of special initiatives aimed at strengthening and enhancing efficiency in the total organisation regarding competences, resources, efficient cost management and own infrastructure. At the moment FORCE Technology employs 34 different nationalities.

Furthermore, we are working on maintaining and developing already existing customers and exploiting the possibilities of a – due to the after effects of

thefinancial crisis and the intensely decrease in oil prices continuously fragile market, which we expect will slowly improve.

FORCE Technology participates regularly in the special initiatives of the Danish Agency for Science Technology and Innovation – for supporting innovation in Denmark.

FORCE Technology has been chosen as technology partner and co-owner of the LORC-initiatives (Lindø Offshore Renewable Centre) about joining processes on heavy goods as well as mechanical full scale test and components for the wind industry. FORCE Technology runs both centres with own staff. We also invest in equipment, which completes our equipment-park. This is to maintain and extend the Danish 'Wind-hub', for the benefit of primarily Danish production companies and wind energy park owners.

Further FORCE Technology actively participates in the initiatives around 'Production Denmark' and 'Material Technology'. These are both large investments made to contribute to create many jobs in the production industry in Denmark and through increased competitiveness.

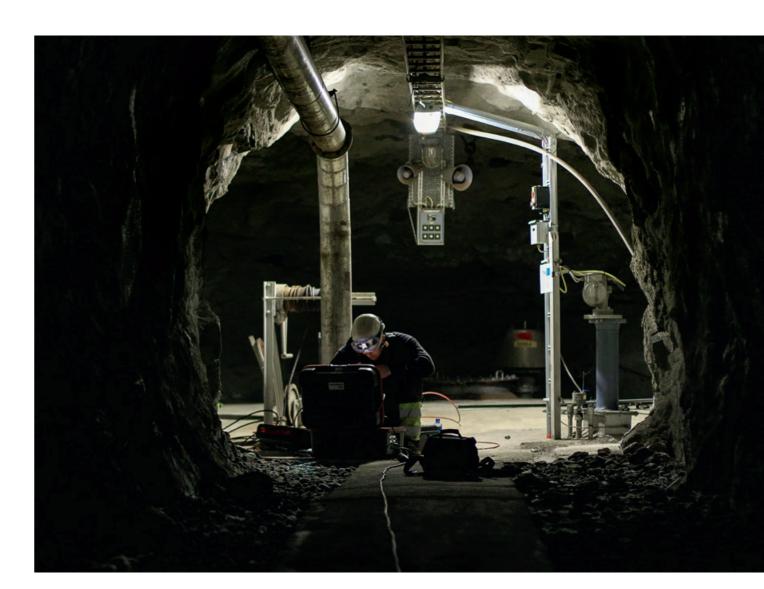
In addition to this FORCE Technology will continue to focus on strengthening internal competences – also in commercial terms – to be able to continue to meet the demands from the market.

All together the adjusted strategy will help ensure that FORCE Technology is able to position itself more clearly and with more significance and greater effect among the five most influential knowledge and technology centres in Europe in the prioritised competency and business areas.

FORCE Technology works globally

With all the planned and already initiated strategic measures FORCE Technology is well prepared for exploiting future possibilities and managing new challenges in a global market that assumes great flexibility, competitiveness and financing abilities – also in times of crisis

The Group expects that the strategically important market to FORCE Technology within the energy sector in 2015 will continue the positive development,



however with a declining rate of growth. At group level FORCE Technology expects a stabile growth in 2015, e.g. by focusing on sale of wider ranges of services and products for the customers in the energy sector and other growth markets. We also expect growth in sales and profit due to the earlier mentioned new product launches.

With the goal of identifying additional areas of future perspectives, we have initiated a strategy based on megatrends.

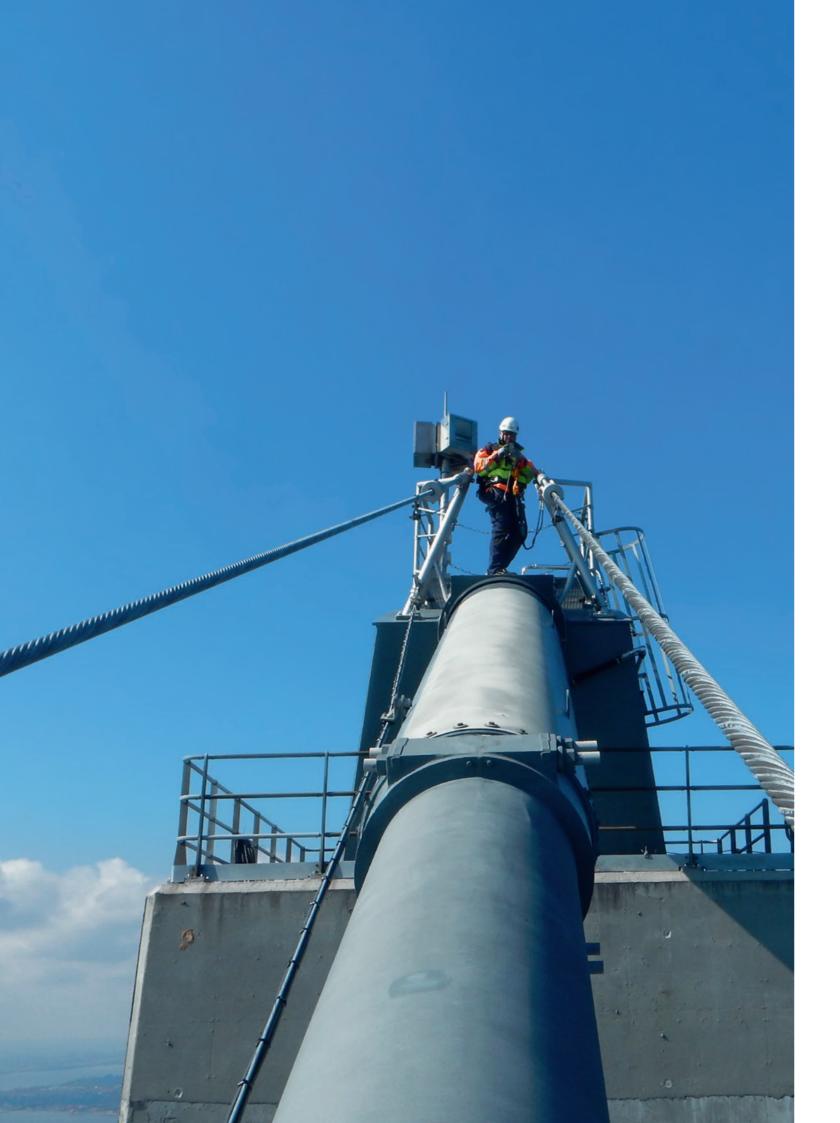
As a result of the performed actions focused on strengthening the organisation, the productivity, the competences and the profitability in the Group, FORCE

Technology expects a 2015 with stability and progress in revenue as well as profit.

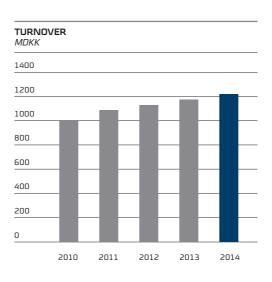
The total effort will ensure continued technological and commercial development and success – for the customers, the employees and the Group.

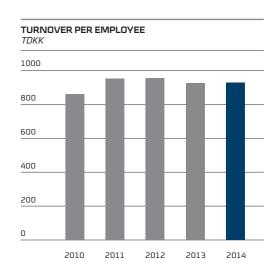
Brøndby, 13 March 2015

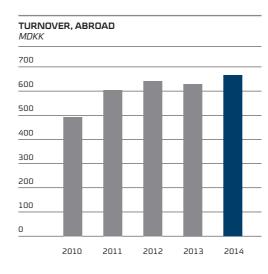
Erik Søndergaard Chairman of the Board Ernst Tiedemann Chief Executive Officer

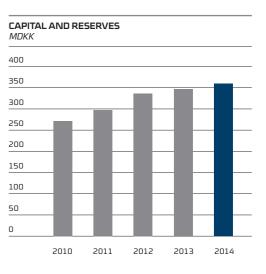


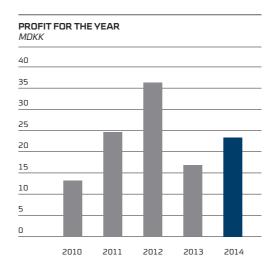
Key figures

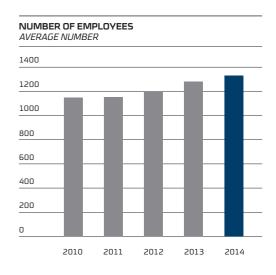














As one of the leading technological consulting and service companies both in Denmark and internationally, we make a targeted effort to sell highly specialised engineering knowledge for practical and cost-effective solutions to a wide range of businesses and industries.

As a customer with FORCE Technology not only do you gain access to one of the largest knowledge banks in Europe within development of new know-how and technologies, you also gain access to a widely branched out knowledge network, which is trendsetting in a number of business areas. Equipped with this base and bearing in mind each individual customer's needs and goals, we are able to provide services that turn knowledge and experience into innovative solutions and value-adding activities that not only meet the customer's demands but also strengthens his competitiveness.

Our consultancy, technologies and products are based on the customer and industrial insight that we have acquired over more than 70 years. We are more than 1,300 employees located at the headquarters in Brøndby and in branches all over Denmark and in the subsidiaries in Sweden, Norway, China and Singapore.

A GTS company

The Danish GTS network, i.e. the network of 9 approved technological service companies is of utmost importance to both large and small Danish companies by sustaining their possibilities for development and innovation. As one of the 9 GTS companies, our task is to provide technological service that optimises the competitive framework conditions of the Danish

business world as a whole; we encourage further innovation, development and resource optimisation at the benefit of businesses and the Danish society as a whole. We do so through cooperation in research, development and innovation projects and we act as matchmakers between the Danish business world and the public system of knowledge as an entity.

Employees

FORCE Technology is an exciting workplace characterised by high-technology services, products and consultancy based on the most recent breakthroughs and research findings. This imposes very high demands on our employees who are among the most competent and respected. They contribute to a working environment that encourages creativity and innovation – and they create development and dynamics through cooperation across the organisation.

VISION

FORCE Technology's vision and mission are included in a number of core values that constitute the basis of the company's long-term development and daily operation. It is our vision to be the customers' preferred cooperation partner in projects involving extensive specialised knowledge. We wish to participate in the projects from the initial concept until delivery of the turnkey project. At completion, we document that the customer will gain the expected functionality, efficiency and value-generation.

MISSION

It is our mission to develop and market value-adding technologies, solutions and services that improve our customers' competitiveness in Denmark and abroad – and thus help customers fulfil their business goals and visions.

BUSINESS AREAS

Our twelve lines of business represent the various competences within knowledge, technology and knowledge of the business that FORCE Technology possesses. In order to provide the customers with integrated solutions we often set up powerful project teams across the organization, in which the employees complement each other with their individual specialist knowledge.



ENERGY, CLIMATE & ENVIRONMENT

Our technological services address the challenges with which society is presented, such as optimisation of energy consumption and reduction of environmental and climate loads. We operate within R&D consultancy and perform services within combustion, emissions, energy optimisation and environment assessments.

Our services include:

- Consultancy on energy systems' operation optimisation
- Design of energy saving projects
- Risk assessment of technical energy systems
 Combustion and gasification of
- biomass and waste
- Air pollution and emission reduction
- Design of deNOx-systems for the onshore and maritime indus-
- · Industrial fluid mechanics
- Energy labelling
- Environmental assessment of products and processes
- CO₂ accounting and carbon reduction services.

INSPECTION & TESTING

The quality of products and structures constitutes the basis for the safety of the users, the environment and the investors. We inspect, test and document quality both in connection with manufacturing and during operation. Our nationwide team of inspectors perform non-destructive testing at power plants, storage tanks, on pipelines, subsea structures, at nuclear plants, on wind turbine blades, offshore structures and chemical/pharmaceutical plants.

We perform:

- Manual non-destructive testing
- Automated non-destructive testing
- Contractors' supervision with suppliers
- First Article Inspection.

Mechanical and destructive testing is performed on materials such as reinforcing steel, steel plates, and polymers, e.g.:

- Tensile testing
- Bend testing
- Toughness testing
- Fatigue testing

Fracture mechanic testing – e.g.
 CTOD testing (Crack Tip Opening Displacement).

Product testing includes testing of e.g. lifejackets and survival suits, safety helmets and boots, anti-fall equipment, ladders, and steel

Inspection is performed as second or third party inspection.

We hold DANAK accreditation to perform non-destructive and mechanical testing.



INTEGRITY MANAGEMENT

Integrity management is about continually monitoring the condition of industrial onshore and offshore installations, so that they meet current standards and perform optimally through their entire service life. Based on comprehensive data collection and subsequent analysis of the collected data we are able to

identify the necessary actions to achieve a reliable and optimal performance.

Our services include:

- Structural integrity
- Material and corrosion management
- Cathodic protection design and verification

- Topside and subsea inspection
- Monitoring services
- Risk based inspection planning
- Maintenance management
- Pipeline integrity management
- Consulting services within asset integrity.

CHEMICAL ANALYSIS AND POLYMERS

Our competences within chemical analysis and characterisation are extensive; we employ some of the most skilled analytical chemists, we dispose of some of the most advanced and modern equipment, i.e. one of Northern Europe's most sophisticated electron microscopes for surface characterisation and we are in the forefront of technological development within surface characterisation.

Our services include:

- Consultancy, analysis and characterisation of polymers and composites
- Customs analyses
- Surface characterisation and analyses via FIB-SEM-technology
- State-of-the-art 3D-equipment
- Analyses of composite structures
- Foodstuff contact materials
- Microbiology
- Metals analyses

- - Personal protection, testEmission measurements,
 - - Analyses and characterisation of combustibles, cinders, and

• Trace elements analyses

analyses

- Analyses of drinking-, ground-, and waste water, and inspection of the water qualitiy in public swimming pools and beaches
- Technical water, analyses.

MANAGEMENT SYSTEMS

We provide consultancy, mentoring and training for companies within all lines of business in connection with structuring, implementing, developing and auditing of managements systems.

Our services include:

- Quality management systems ISO 9000
- Environmental management systems, ISO 14001
- Work environment management DS/OHSAS 18001 etc.
- Risk management
- Audit, including supplier's audit
- Lean
- Business development.

MARITIME SERVICES

We work with development, optimisation and design within a wide range of maritime fields.

Our services include:

- Hydro- and aerodynamic optimisation of ship structures
- Evaluation and test of offshore operations
- Development and delivery of ship simulator systems
- Onboard systems for route planning, fuel optimisation etc.
- Simulator-based training of
 srows
- crews
- Harbour layout evaluation
- Human factors-based design of systems
- Evaluation of aerodynamic designs of buildings and bridges.

MATERIALS AND WELDING

With leading expertise in material and welding technology, we operate globally providing consultancy, supervision, development and analyses of materials, systems and structures. We combine highly professional knowledge with impartiality and fast response, e.g. in failure and damage cases.

Within welding, our services include:

- Welding technology and quality control of welding
- International troubleshooting, consultancy and supervisory services

- Design and calculation
- Advanced laser welding as well as conventional welding
- Thermal spraying
- Certification of welders (carried out by FORCE Certification A/S)
- · Pilot production.

Within materials, our services include:

- Specialist knowledge within metals and concrete
- Painting and coating (FROSIO inspection)
- Cathodic protection and monitoring

- Material selection, characterisation, and testing
- Failure analyses and damage investigations
- Corrosion measurements and protection
- Overall assessments and on-site material analyses.



METROLOGY

We ensure that meters and production equipment are calibrated and verified. We participate in the international cooperation within metrology, and we are approved as national metrological institute in certain fields. We dispose of the world's largest facility for high pressure calibration of natural gas meters and we are among the largest global suppliers of type testing of flow metres.

Our services within metrology include:

 Verification and calibration of equipment and references within volume, density, mass, flow, temperature, force, pressure, and torque

- Sale of weights
- E-marking of pre-packages
- Type approval of flow and energy meters
- Consulting and training within metrology. Our metrology services are accredited by DANAK.

Our services within amusements, games, and tachograph workshops include:

- Certification of online games
- Verification of gambling machines
- Inspection of public amusement park machinery
- Supervision of garages handling tachographs
- Service of tachograph equipment

 Training of mechanics (tachographs).

Our services within the maritime field include:

 Service for cargo systems on gas carriers, including calibration and service of pressure and temperature measuring equipment and level gauges, service of alarm systems and gas detectors, calibration and restoration of safety valves, and service on DW-pumps and cargo compressors.

SENSOR & NDE INNOVATION

We develop and provide a wide range of technical solutions for optimisation of our customers' productivity. We are world leading when it comes to applying the most modern and advanced sensor technologies, primarily based on X-ray and ultrasound. Our sensors are used in production processes for identifying and reducing production errors, quality control, sorting and documentation. The sensors have a direct positive influence on the customers' efficiency, staff safety and competitiveness.

Our services include:

- Development, production and implementation of customised measuring equipment for automatic in-line process and product control
- Development and production of equipment for ultrasonic and eddy current inspection
- Examination and inspection by means of advanced digital X-ray technology
- Software solutions for planning, execution and documentation of automated inspection

- Development, sale and calibration of ultrasonic hydrophones
- Tracer investigations in the process industry, offshore and in purifying plants
- Automated sorting of waste and batteries by use of PGNAA-technology
- Consultancy within industrial use of radioactive sources
- Research and development of measuring methods, sensors and non-destructive testing (NDT).

TRAINING AND COURSES

Most jobs today demand that you are willing to acquire new knowledge and that you accordingly adapt this to create results. In our courses, we help you apply such theoretical knowledge to your job functions. Our experienced staff of teachers meet your specific demands for sparring and training within our broad spectrum of disciplines that comprise:

- Work environment management
- Audit
- · Energy and environment
- Business development
- Food safety
- · Chemistry and polymers
- Inspection of pressurised equipment and lifts
- Corrosion and materials technology
- · Quality management

- Lean
- Odour and emissions
- Maritime industry
- · Eco-management
- Metrology
- NDT
- Risk management
- Welding and welding inspection
- Transportation
- Water treatment.

SONOSTEAM®

SonoSteam® is an efficient and chemical free solution for reducing bacteria, mould fungus and viruses. The patented technology is based on a nozzle, which under high steam pressure creates ultrasound. The combination of steam and ultrasound efficiently reduces bacteria. SonoSteam® develops

equipment for reduction of campylobacter and salmonella in fresh chicken. Furthermore the technology is undergoing development within a number of non-food areas.

SonoSteam® may be applied for:

- Fresh meat
- Cheese

- г---
- Cereals and seeds
- Cleaning of processing equipment and packaging.

FORCE CERTIFICATION A/S

Our services are provided at an internationally accepted level and we are accredited by DANAK (EA-MLA) according to ISO/IEC 17020, 17021, 17024, 17065, and ISO 14065.

We provide certification and inspection within 5 main areas:

- Person certification (welders and NDT-operators)
- Conformity assessment services EU-directives (authorised)

body number 0200 - PED, TPED, SPVD, LD, PPE, CPR, MarED, PyrAD, MID, NAWI]

- Product certification (EN 1090, ISO 3834, USCG-life saving jackets*, CO₂-verification)
- System certification (quality, environment, work environment, quality modules within EU-directives etc.)
- Inspection according to national legislation (pressure vessels and lifts).

We are approved as Danish
Authorized National Body (ANB)
for welders' training programmes
under the European Welding
Federation (EWF) and International
Authorization Board (IAB/IIW).
The United States Coast Guard
(USCG) has approved FORCE
Certification for certification of
lifesaving jackets*.

14 / **15**

^{*)} not accredited.



2014 offered a number of different assignments for which FORCE Technology's many competences came into play.

From verification of calculations for a new oil-drilling rig, which is to produce in the harsh environment in the North Sea, to assistance on innovative application of carbon fibre composites for boat building, to automatic disinfection of hospital mattresses with the SonoSteam technology. The customers' problems differ widely, and the same applies to our solutions. All assignments require thorough professional insight and practical experience as well as a great commitment from our employees.







In the following, you may learn about some of the many different tasks we have solved in 2014.



FORCE Technology contributes to the resource economy of the future

Can recycled plastic be used as raw material in new products and what does it take? It is one of the crucial questions forming basis for a three-year development project in FORCE Technology. The project is part of a broad initiative focusing on 'Produktion i Danmark', financed by the Ministry of Higher Education and Science.

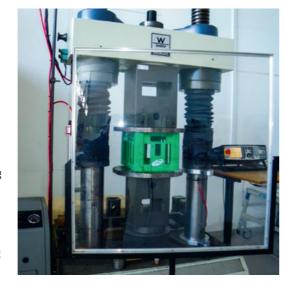
Under the topic 'Resource productivity', FORCE Technology has gathered a number of crucial players to investigate the possibilities and challenges of applying recycled plastic as raw materials.

With a wish to reduce resource consumption and decrease CO₂-emissions from packaging, Arla Foods contacted us to investigate the possibilities of applying regenerate (recycled plastic) in production of their well-known green milk crates.

Even though the milk crates are recycled for years, many of them disappear from the system every year. Arla Foods manufactures approximately 350.000 new crates annually, corresponding to 450 tonnes of plastic every year.

Arla's green milk crate in pilot project

The pilot project was run in close cooperation between Arla Foods, Ikadan A/S, who manufactures the crates and the company Aage Vestergaard Larsen A/S, who processes plastic waste to new raw materials. Apart from running the project, we have contributed with



polymer technical consultancy, testing of various raw material combinations and manufactured crates as well as environmental assessment of various solutions.

The results turned out much better than initially expected. The criterion for success and point of departure of the project was that 25 % of the raw material could be replaced with recycled plastic, but the preliminary results indicate that it is possible to manufacture the crates with 95 % recycled plastic without compromising neither strength nor stability – or the well-known green colour.



ABOUT 'PRODUKTION I DANMARK'

'Produktion i Danmark' frames a number of focus areas, contributing to strengthen employment, productivity and competitiveness of Danish manufacturing companies

Behind the initiative, which is financed by the Ministry of Higher Education and Science, are FORCE Technology and Danish Technological Institute.

Contractor's inspection for DONG Energy Wind Power



FORCE Technology's contractor's inspection has resulted in significant enhancement of quality at the production of a new Offshore Substation for the offshore wind farm, Westermost Rough Offshore Wind Farm.

The Westermost Rough Offshore Wind Farm is an offshore wind farm situated 8 kilometres from the eastern coast of England. As contractor, DONG Energy Wind Power has constructed the offshore wind farm and it has a capacity totalling 210 MW.

A transformer station at sea

An offshore substation is a transformer station at sea, converting electricity, produced by offshore wind turbines, from voltages of 34 kV to 155 kV. It consists of a Topside module, supported by a Jacket, anchored in the seabed. The Topside and Jacket are both produced from steel, with the French manufacturer STX Europe in Saint Nazaire.

Expertise enhances the quality

At the contractor's inspection for DONG Energy Wind Power, FORCE Technology has had a full-time employee

stationed in France. Furthermore, FORCE Technology has performed contractor's inspections in Europe with sub-suppliers for STX Europe.

Production Manager Søren Busk with DONG Energy Wind Power says: "It has been very valuable for us to be able to use FORCE Technology's observations and highly qualified expertise within nondestructive testing (NDT), welding, coating inspections and strength calculations. FORCE Technology's performance has resulted in significant enhancement of quality."

Contractor's inspection of other offshore wind farms

FORCE Technology has performed contractor's inspections and provided DONG Energy Wind Power with engineering services for an extended period during construction of several offshore wind farms, e.g. Horns Rev, London Array, Burbo Banks, Gunfleet Sands and Borkum Riffgrund. Construction of Gode Wind is ongoing at present.

Pioneering work within legal metrology on flow meters

Performing product verification on very large flow meters is a challenge due to the extraordinary size of the flow measuring system – a challenge Endress+Hauser and FORCE Technology met in cooperation.

The extensive measuring system of Endress+Hauser

Endress+Hauser is a global leader in measurement instrumentation, services and solutions for industrial process engineering. The main areas of expertise include providing process solutions for flow, level, pressure, temperature and digital communications, and optimizing processes in terms of economic efficiency, safety and environmental impact.

In one customer project, Endress+Hauser delivered a custody transfer ship loading measuring system that requires a product verification of the complete system. The measuring system is very large with a capacity of 16,000 liters per hour, with the largest available Coriolis meters, being up to 2 meters over the casing.

Endress+Hauser currently does not hold the certificate to perform the full product verification, and they contacted FORCE Technology. FORCE Technology is authorized to perform the necessary tests for product verification and cooperates with FORCE Certification which, as a Notified Body, is certified to perform product verification of flow meters according to the European Measuring Instrument Directive, MID.

Product verification of flow meters - a challenging discipline

Since 2006, product verification of flow meters and measuring systems has been obligatory according to MID regulations. All flow meters in Europe must be type approved and afterwards verified to conformity with the MID type approval prior to operation.



Verification of very large flow meters and systems is challenging due to extraordinary sizes and often, unpractical placement of the meters at harbors, ports or platforms. Furthermore, the verification requires special equipment and that the organ performing the verification holds a certificate for MID approval.

For this reason, product verification of large flow meters and systems is a challenging discipline within legal metrology – a challenge, Endress+Hauser faced when delivering the large measuring system, on which they could not perform the full product verification.

Pioneering work within legal metrology

At Endress+Hauser's request, FORCE Technology performed the testing necessary for product verification of the measuring system. Endress+Hauser ensured provision of a master meter for comparison, which is part of the verification process.

The cooperation within verification of a measuring system of this size is amongst the first of its kind in Europe and therefore pioneering work within legal metrology in Europe.

Besides the application and documentation review, the services of FORCE Technology consisted of site visits for witnessing the initial verification of the measuring system with a high capacity master meter comparison. On the cooperation, Mr. Alp Camci, Project Manager at Center of Competence Oil & Gas at Endress+Hauser Reinach concludes:

"Having previous cooperation with our local Sales Organization in Denmark, FORCE Technology had proven to be a competent and reliable partner for the specific requirements of this task. FORCE Technology has been involved from the beginning of this project and supported us with pre-reviews of the documentation and consultation about the complete verification process. FORCE Technology was flexible to the customer schedules during the on-site services with highly motivated and competent employees. Finally, the project was completed fully in accordance with the customer needs, legal requirements and project schedule."

Root cause analysis of water ingress into Emma Mærsk

Emma Mærsk was on its way in a convoy of ships through the Suez Canal. Without warning, all the alarms were displayed in the control panels on the bridge and in the engine control room. The cause turned out to be severe sea water ingress into the engine room, which put the main machinery out of operation within a very short time. Subsequently, FORCE Technology's experts assisted at finding the cause for the failure.

Thanks to the skilled and resolute crew on board Emma Mærsk the ship managed to be berthed, before all machine power had disappeared. The cause for the water ingress was a stern thruster, which had failed and torn a hole in the hull. Three broken propeller blades and cracked welds allowed the seawater to flood almost unhindered into the ship and on to the main engine room.

Failure analysis to prevent new damages

FORCE Technology has assisted A.P. Møller Mærsk with a failure and damage investigation of the destroyed stern thruster. By means of a number of technical and metallurgical examinations and analyses, performed in cooperation with the stern thruster manufacturer the root causes and the course of failure have been clarified.

The investigation is to determine all the underlying causes for the failure, so that similar failures will not occur again – neither on Emma Mærsk nor on A.P. Møller Mærsk's sister ships, which are equipped with the same type of stern thrusters.



Highly technical expertise

The results of our technical examinations and analyses have provided A.P. Møller Mærsk with the opportunity to examine and inspect the critical area in other ships and subsequently perform necessary structural changes.

Solving a task such as this is undertaken in close cooperation with the ship owner, the manufacturer of the component in question, the ship's classification society and the Danish Maritime Accident Investigation Board.

"During the Root Cause Investigation of the Stern Thruster damage on Emma Mærsk FORCE Technology has demonstrated high level technical expertise and delivered a reliable third party investigation" states Ole Graa Jakobsen, Head of Technical Operations Maersk Line Ship Management.



Designing grand structures

FORCE Technology Norway supports Total E&P Norway in the design and fabrication of Martin Linge, demonstrating yet another project where FORCE Technology holds key positions in customer projects, applying extensive experience and in-depth knowledge on critical tasks.

Marc, one of our structural engineering experts, was hired by Total as an expert consultant within structural and marine engineering to perform quality assurance on the design and fabrication of the platform Martin Linge. 2014 marked a tremendous milestone, as the Jacket design and fabrication was complete in June.

Quality assurance from day one

In a team of three engineering experts, two of which represent Total, Marc reviews drawings, documentation reports and procedures in order to verify compliance against NORSOK, Total's specifications and project specifications. They verify and check designs and calculations, making sure that they are correct and During the project, Marc worked closely with Total and the contractors, discussing and evaluating alternative designs in order to reach the optimal decision according to requirements and functionality.

Collaboration

When asked what was most rewarding with this project, Marc mentioned the honour of being able to contribute to a project of this significance to Total, but also to Norway and its offshore industry. Marc also mentioned the benefits of working across cultures and boarders, learning more about their business culture and technical insights. Some of the main countries involved in this project include Norway, Sweden, South-Korea, India and France.



according to best-practice. They also ensure that fabrication- and transportation procedures are followed, and that reporting is satisfactory performed.

All of these factors are crucial for correct and safe development of the platform. Safety is priority number one when dealing with projects like this. Impairs or improper design may not only lead to risk of damages to highly valuable equipment and structures, but it could also risk human injury and harming the environment.

MARTIN LINGE OWNERSHIP

- Total E & P Norge AS 51 %
- Petoro AS 30 %
- Statoil Petroleum AS 19 %

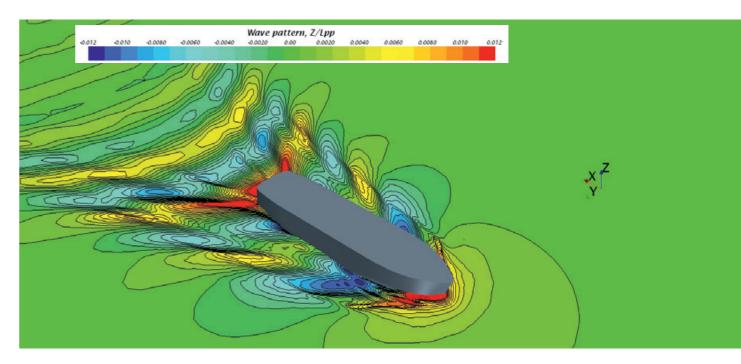
The field was first detected in 1978, but

Creativity and innovative technology has made it possible to realise one of the most valuable oil & gas development projects

It will be built as an integrated fixed platform, including a living quarter, a flare, a

- Jacket complete: June 2014
- Topside complete: July 2016Commissioning complete: end 2016

Design evaluation and test of new Icelandic ferry



FORCE Technology evaluates the design of a new Icelandic ferry. The captains of the ferry can test the design in our ship simulator, and together with the evaluation, the simulator training may contribute to reducing the number of cancellations and delays due to bad weather.

The ferry between Vestmannaeyjar and Landeyjarhöfn in Iceland has problems entering the port in certain weather conditions. It is therefore necessary to have a new ferry which is built specifically for the large and long swell, the strong current across the approach channel and the strong winds.

Our maritime division in Lyngby has been assigned to evaluate the design of the new ferry in order to reduce the number of cancellations and delays due to weather and sea. By assigning the evaluation to us, the shipowner benefits from our cross-disciplinary services, necessary to test the ship in-house.

Tests in towing tank and wind tunnel

The physical tests in the towing tank provide information on the ship's performance and manoeuvrability in both deep and shallow water, e.g. course stability, turning circles, stopping distances etc.

Tests in the wind tunnel will provide information on wind coefficients showing how the wind affects the ship. This information, together with the information derived from the tests in the towing tank, will be used to make the simulator training of the captains more

The wind coefficients - together with the Computational Fluid Dynamics (CFD) calculations of the hull line in shallow water and manoeuvring simulations - will give a realistic representation of the performance of the actual ship.

Mathematical model and simulator training

These data form the basis of a mathematical and visual model of the ship which can be tested in one of our ship simulators where the captains can be trained in sailing their new ferry in the relevant ports in realistic conditions.

All tests will be used for specific recommendations for optimising the ship. In this way we determine the operational limits and ensure that.

Complete ultrasonic system for test and production control of wind turbine blades in Korea



Korea Institute for Material Science, KIMS-WTRC, is the first Korean buyer of a complete ultrasonic system for examination of wind turbine blades. For several years, FORCE Technology has worked with Korean companies, and there is a growing potential for our ultrasonic systems in the Korean market.

For the first time, FORCE Technology has supplied a complete ultrasonic system for examination of wind turbine blades in Korea. The buyer of the system, KIMS-WTRC, which is financed by the Korean government, aims to support the country's companies in technological development, test and evaluation. KIMS-WTRC's new system consists of our P-scan

System 4 Lite (PSP-4) and an AMS-69 wind turbine blade scanner, which is capable of scanning vertically oriented blades.

Several users of the same system

When KIMS-WTRC is not using the system, they lend it to a Korean wind turbine blade manufacturer, who employ it in the quality control of the manufactured blades. The system scans for typical internal flaws such as delaminations, adhesive defects and resinpoor areas. The area, size and depth of flaws and total laminate thickness are visualised and measured by the integrated P-scan software.

Increasing sales in Korea

Over the past years, the sale of P-scan systems and scanners to metal manufacturing industries has increased in Korea, and with the introduction of the new P-scan Stack system, we expect that increase to continue. Primarily because we have developed automated solutions that include the Phased Array technique, which is in strong demand in Korea.



Signature paves the way for clean air above China



Danish companies' potential of doing business with the Chinese is huge, especially within clean-air technology, biomass and waste incineration. This much was clear when a delegation headed by three Danish ministers visited Beijing's largest thermal power station and overlooked the ratification of a strategically significant commercial contract between FORCE Technology and Tongfang Environment CO., Ltd.

China has, with the world's largest growth economy, a huge consumption of energy and emits large amounts of dangerously contaminating nitrogen – and sulphurous compounds from their many carbonfired power plants. The vast country to the East faces a future change-over from coal to green energy such as wind turbines and biomass – and this may open many doors so that Danish companies can flaunt their competences and solutions to Chinese players within the energy and waste incineration area, Managing Director with FORCE Technology (Beijing) Co., Ltd. recounts.

Nis Hansen signed the new deal about supply of Danish clean air technology for reduction of the air pollution in China. In this connection, he had a long conversation with the minister for the environment in

Denmark, Kirsten Brosbøl, during which they discussed Danish clean air companies' potential at the Chinese market, because of the new tightened air regulations.

Huge potential for green energy in China

"I am pleased that our customer, represented by General Manager Leping Tang from Tongfang Environment CO., Ltd. expressed satisfaction with our long-standing cooperation and look forward to intensifying it. It is also very positive that the Chinese see great potential in cooperating with Danish companies, e.g. within biomass and waste incineration", Nis Hansen states.

"We expect to get more and more projects in China. Our solid position in the Chinese market for clean air technologies and our long-standing competences from the Danish market make a good starting point for entering into new agreements with new Chinese customers within biomass and waste incineration", Nis Hansen concludes.

One hundred percent thickness measurement



The steam lines at Ringhals nuclear power plant are subject to periodic inspection. So far, the thickness has been measured manually by using ultrasound, but now tests have been made with the mechanized T-scan system.

"By replacing the manual measurements with an automated system the possibilities to measure the thickness decrease over time will increase, due to increased repeatability and possibility of post treatment of data", says Torbjörn Nilsson at Ringhals. "It is particularly interesting for large items that require a lot of measuring."

T-scan automatically measures the thickness to nearly one hundred percent in a certain area. The result is shown as a thickness map. FORCE Technology has used the method for decades, but not until recently, it was introduced to the nuclear industry.

Systems of this age must be investigated

In non-destructive testing, the focus has been inspection of welds and not thickness measurement. However, with a system that is now close to 40 years

of age, there is a growing interest in mechanical thickness measurement, as erosion and corrosion damage start to show.

"The most important thing is to get repeatability", recounts Per Wallin from FORCE Technology. "With reliable measurements the correct maintenance program can be applied and thereby reduce costs", Per says.

"There is no significant cost saving for the measurement itself", says Torbjörn Nilsson, "the advantage is that a mechanized system does not get tired; but it requires good availability and objects located close to each other."

"It's time to take thickness measurements seriously, there's money to be saved with correct data", Per says.

"Now, we have performed a first measurement with T-scan. It will be really interesting after the second measurement whether we can see any differences in thickness", concludes Mr Nilsson.

Production control on pipeline from China

FORCE Technology inspected coated steel pipelines with manufacturer in China.

For a number of years, FORCE Technology has conducted inspections in China, and in 2011 FORCE Technology established a subsidiary in the country – FORCE Technology (Beijing) Co., Ltd.

Among the tasks in 2014 was a third party inspection for Maersk Oil with Tianjin Pipe Group Corporation (TPCO) in the Northeastern part of China. The Company is one of the largest pipe manufacturers in China and is capable of manufacturing according to international standards of quality.

To conduct the inspections it was necessary to have experts from FORCE Technology present at the factory in Tianjin 24-7 for $2\frac{1}{2}$ months. Based on this FORCE Technology opted to perform the task in cooperation between the departments in China and Denmark.

Quality assurance at several levels

Coated steel pipelines are applied for transmission of e.g. crude oil or natural gas and the factory in Tianjin

manufactures various types of coated steel pipelines according to precise specifications as regards pressure, temperatures, corrosions resistance etc.

With a third-party inspection, it is ensured that products meet all technical and safety requirements and specifications, and you can check traceability as regards the production, materials and enclosed documents.

FORCE Technology's experts within nondestructive testing (NDT) and welding performed the task in accordance with the program for quality assurance set up by the customer and they measured, tested and tried the coated steel pipelines in a number of fields throughout the project.



Tanker operations in the Rio Magdalena

FORCE Technology has simulated transfer of oil from a tanker to a barge or a smaller tanker in the Rio Magdalena to investigate safety and determine both the operational limits and the necessary tug assistance.

It is planned to transfer oil from a tanker to barges or smaller tankers in the Rio Magdalena in Colombia. The Colombian maritime administration (DIMAR) wants to ensure that these operations are carried out safely, efficiently and minimizing all possible risks in order to prevent oil spill or other hazards to the environment.

Simulation of oil transfer

In our simulator centre in Lyngby, we have carried out simulations to investigate if the oil transfers can be done safely at the predetermined anchorages on the river and to determine the operational limits for the transfers in terms of current, wind and traffic conditions.

Current up to 6 knots and winds up to 40 knots make ship-to-ship operations on the Rio Magdalena difficult. Apart from the challenging current and wind, the ships must be manoeuvred along the river, and different traffic configurations must be taken into account.

Simulation with barge pushers

The simulations have involved barge pushers used for transporting the barges into position for the oil transfer from the tanker. Simulations of oil transfer operations involving barge pushers is a new thing as we have previously only carried out ship-to-ship operations.

When simulating with barge pushers, it is important that the barge pushers and the barges are coupled realistically to make the barges react to the movements of the barge pushers. The coupling is difficult – also in the simulator – because the forces of the vessels neutralise each other, and the coupling is also affected by wind and current. However, both captains and pilots found the coupling and use of barge pushers realistic.

5 simulators and 11 participants

The actual simulations have been carried out during five days using two full mission bridges and three tug simulators. A representative of DIMAR was present, together with Pilots and captains from Barranquilla, Coremar, Impala and Acquamar participated.



Innovative X-ray measuring system for the plastic pipe industry

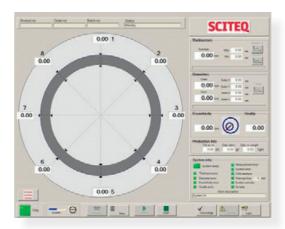
In 2014 FORCE Technology delivered a complete and innovative X-ray measuring system to an Australian pipe manufacturer. The system provides manufacturers of large plastic pipes with the opportunity to optimise their materials consumption and product quality.

Extensive development cooperation

The X-ray measuring system has been developed for and in cooperation with the Danish company SCITEQ A/S, who develops and manufactures measuring technical solutions for manufacturers of plastic pipes. The company's export share constitutes 99 %, of which 70 % is outside of Europe. The cooperation is partly financed by the Danish Ministry of Higher Education and Science, Extended Knowledge Coupon.

The Innovation Management Group at Aarhus University is attached to the project and contribute with the general social framework through close association with education and research. Emphasis is on the interrelation between the university and the industry – especially in regard to the engineering technical and business developing areas and on innovation problems for small and medium sized businesses.

The measuring system is based on a measuring principle, which is the result of a previous development project, which through government innovation funds were granted means for cooperation between the GTS-foreningen (Approved Technological Services) and preferably small Danish companies with a need to expand their innovation capacity. The measuring principle is patented and has been implemented in the new measuring system.





Short payback period

The innovative is that trustworthy product parameters may be measured very early on in the production flow. This enables the manufacturers to monitor and thus optimise the material consumption and ensure the quality of large polymer based pipe systems for transportation of water, waste water, chemicals etc. in both de-pressurised and pressurised systems.

The payback period for the measuring system is short as the possibility for fast process regulation may optimise the material consumption, reduce waste and ensure product quality. This signifies a considerable market and export potential for the unique measuring system.

The first measuring system was installed at a pipe manufacturer in Australia in 2014. In this case the measuring system is integrated in a quite innovative mobile production machinery for large plastic pipes. The measurement system is placed in a container, which is one of the modules of a module designed production plant, and it is directly integrated in the production system with automatic control, regulation and documentation.

Validation of global competency



Platforms and vessels for the oil & gas industry are often awarded to yards in Asia, sometimes with pre-fabrication in Europe. For the operator, an important aspect is assuring that the workforce on location is competent to perform the tasks at hand.

FORCE Technology Norway AS has provided on-site verification during the construction of two large vessels/platforms for a large Norwegian oil & gas operator. In order to increase safety and secure flawless manufacturing, our task was to assure that anyone performing important tasks using advanced non-destructive testing techniques had the necessary skills according to ISO standards, as well as cross checking requirements from the client, such as the NORSOK standard.

Our role was highly diverse. We performed surveillance and third party verification, and sometimes even stepped in as construction superintendent. Depending on client demands, we arranged formal testing of skills, or we arranged so-called witnessing; where we watched the inspectors applying different techniques on-site. Some of the more common techniques included X-ray inspection, penetrant testing (PT), magnetic particle testing (MP), and phased array testing or ultrasound inspection. We also reviewed certificates and reports of previous work, in order to verify that the reporting and testing were carried out correctly and confirming the validity of their certificates.

FORCE Technology has provided consultancy services within everything from quality assurance, HSE to management for many years. Our independent divisions specialise within a wide range of areas, and it is the collaboration of these that make us a preferred partner within the offshore industry.

Disinfection of hospital mattresses with green technology

Based on the SonoSteam technology from FORCE Technology, SEMI-STAAL A/S can provide a state-of-the-art machine for disinfection of hospital mattresses. At present the system is used at Hvidovre Hospital, and the company expects that the potential market is significant domestically as well as internationally.

Over the past 8 years, FORCE Technology has worked with a 'green technology' combining ultrasound and steam for disinfection of microorganisms on surfaces. To begin with, focus was directed at reducing bacteria on broilers, but now the company SEMI-STAAL, who manufactures sinks and transportation systems for returnable packaging, implemented the technology in a new product for disinfection of hospital mattresses.

"Actually, our original task was to supply machines for bed-washing at Hvidovre Hospital, but it turned out the task should also deal with developing a machine for washing mattresses. If you wash and clean the bed, but not the mattress you are back to square one. This is why we in parallel to the bed-washer and in cooperation with FORCE Technology developed the mattress-washer, in which the hospital has now

invested" says CEO Nicolai P. Meyendorff from SEMI-STAAL.

"We have developed a unique product and we have no fierce competitors, since the alternative is manual washing, which is a protracted and expensive process. At the same time we hold the huge competitive advantage that our machines are environmentally friendly and without chemicals, and we hold a strong belief that the product may be sold in international markets", Nicolai P. Meyendorff says.

SonoSteam® in other lines of business

The next challenge is to alert other trades to the possibilities provided by the technology. Not least of all food manufacturers will benefit from applying SonoSteam® for removal of undesired bacteria on surfaces, without the use of chemicals!

At present, Arla Foods is testing the technology in their production processes. It is not the actual food stuff that needs treatment but instead the production equipment, which will ensure a high level of proper hygiene. Such high level of hygiene will lengthen the shelf life of products, and it will lessen the danger of cross-contamination.



One more simulator for Svitzer

To FORCE Technology it is important to improve good customer relations and thereby become a part of our customers' development.

Svitzer's tug masters and chief officers have been trained in our ship simulators in Lyngby over the past ten years. During the years, our cooperation with Svitzer has been developed, and now we can draw on Svitzer's expertise for our training of pilots or for simulations requiring expertise from an experienced tug master.

Mobile simulators

Since 2007, we have supplied Svitzer with five mobile simulators, thereby giving them the opportunity to train their staff at flexible locations. The latest development in our cooperation is the delivery of ship simulators to Svitzer Americas' regional training centre in the Bahamas.

In cooperation with Freeport Habour Company and Mediterranean Shipping Company (MSC), Svitzer has

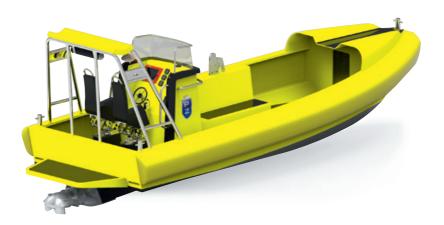
decided to place the training centre in the Bahamas. They have done this to accommodate the growing demand for tug masters and pilots experienced in assisting larger vessels safely into port. This unique cooperation allows Svitzer, Freeport Harbour and MSC to train captains and pilots in their daily joint operations.

The new centre in the Bahamas

FORCE Technology has delivered two part-task simulators and one 180 degrees full mission bridge simulator to Svitzer Bahamas. The part-task simulators are used for simulating the tugs while the 180 degrees simulator represents the assisted ship (Container, LNG, cruise vessel etc.). For training tug operations, a realistic environment is essential. Consequently, the main port in Svitzer Bahamas' simulator centre is Freeport harbour, and in addition, other generic ports have been delivered for training purposes.



Optimised composite materials improve competitiveness



The Industry's Composite Laboratory (IKL) is collaborating with the Danish company Tuco Marine Group in developing a new generation of boats made from carbon fibre reinforced composite materials. The ground-breaking design minimises weight, reduces production time and lowers material costs.

The Danish company Tuco Marine Group was founded in 1998. Originally, the company was a shipbuilding yard, focusing on pleasure boats. Today, their focus has changed and the company is now manufacturing light structures such as hulls for the maritime sector and other large composite structures for completely different industries as well.

Changed focus requires greater knowledge

Tuco Marine has entered into a cooperation with the Industry's Composite Laboratory with the purpose of optimising the design and the composite materials used in their boat series, ProZero, in order to obtain a lighter and less resource requiring boat series.

Previously, Tuco Marine was an order-producing company only, for which the customers supplied designs and material specifications. With the new boat series, Tuco Marine will be in charge of design and approvals, which requires great knowledge of materials properties, calculations and test standards, knowledge to which The IKL can contribute.

Cost reduction is a means of maintaining the production in Denmark

The aim is to design one boat type for various applications, e.g. work-boats, life boats or speed boats. At the same time, it is necessary to reduce the production time so that the company becomes competitive enough to maintain production in Denmark.

The lightest design that has been found is a CFRP-based (carbon fibre reinforced polymer) design, reducing the weight by 35 %, while material costs may be reduced by 24 %. In order to minimise production costs, the last step of the design phase emphasises reduction in the production-time, which requires close cooperation with Tuco Marines' employees.

THE INDUSTRY'S COMPOSITE LABORATORY

The Industry's Composite Laboratory is a partnership between FORCE Technology, The Technical University of Denmark and Aalborg University. The purpose is to enhance the knowledge content and innovation of composite materials, especially in small production plants. The Ministry of Higher Education and Science supports the project.

TwinEye X-ray measuring system monitors flexible pipes in Brazil



FORCE Technology has developed, manufactured and installed a TwinEye X-ray measuring system for National Oilwell Varco Denmark's (NOV Flexibles) new production line in the state of Rio de Janeiro, which produces flexible pipes for oil- and gas extraction.

Quality is paramount

NOV Flexibles, previously NKT Flexibles, supplies flexible pipes for offshore oil and gas extraction. The company is a subsidiary of the American NOV, employing more than 60.000 staff globally .NOV Flexibles has just opened a new factory in Brazil.

The complex pipe systems are used between installations on the seabed and between the seabed and the surface, posing huge requirements to the quality of the pipes. Their full integrity and flexibility must be preserved for many years under extreme conditions at several thousand metres depth and free span in an active sea. Faults and breakdowns may have severe environmental and financial consequences.

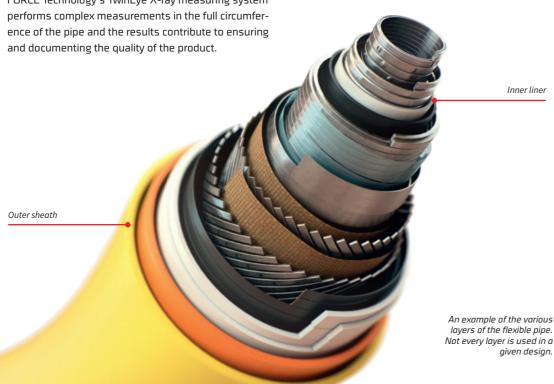
FORCE Technology's TwinEye X-ray measuring system

Measuring system for quality control, product documentation and process surveillance

The extreme conditions makes the quality control of the flexible pipes paramount. The measuring system is installed in-line in the production line for the fastest possible control of dimensions for pipes with an outer diameter up to 650 mm. The system helps ensure the quality of the pipes' polymer layers to protect the many reinforced layers against corrosion from the outside as well as inside.

NOV supplies each pipe with extensive documentation proving that the pipe is in accordance with the product specifications. In the documentation is included continuous and extensive measurement of the dimensions of the polymer layers. All measurements are integrated in the documentation systems.

The system's high measuring frequency, its coverage of the total pipe circumference and integration into the control system of the production lines is used for process monitoring. Process variations and production defects may influence a large part of the production, and it is crucial to be able to correct it as early as possible in the process. Small process variations and early error detection ensures optimum production.



Inspection of thousands of welds in a new power station

Växjö Energi & Miljö invests 1 billion SEK in a new boiler. Thousands of welded joints connect tubes, valves and pumps for various systems. All of them must be inspected by a notified third party body - FORCE Technology.

"We start X-raying the welds at 6 p.m.", Leif Rylander, inspection engineer with FORCE Technology says. Due to radiation protection requirements, X-ray tests only take place in the evenings and during the nights.

Leif and his colleagues have their own 'office' inside the construction site. It is a modified container with an office, a laboratory and a storage facility. "Being present in the area is necessary in order to make things work", Leif says.

All welds are inspected

All welds are inspected visually. Some are also tested by X-ray and ultrasound, depending on the system and applicable standard.

Many people consider X-ray testing the most reliable method for inspection of welds, since you get your inspection on film. The disadvantage is the radiation risk and the duration.

All serious weld defects are detected by ultrasound. The inspection may be performed independent of other activities, but it has some geometrical limitations. Surface cracks are inspected with magnetic particle or dye-penetrant testing, which are relatively fast and simple methods.

Good cooperation despite many contractors

Several hundred contractors are involved in erecting the boiler, but cooperation and communication work





It is Björn Wolgast, Site Manager with Växjö Energi & Miljö, who ordered the new boiler. He says that up until now "everything has gone according to plan" and he is fully satisfied with all the parties involved.

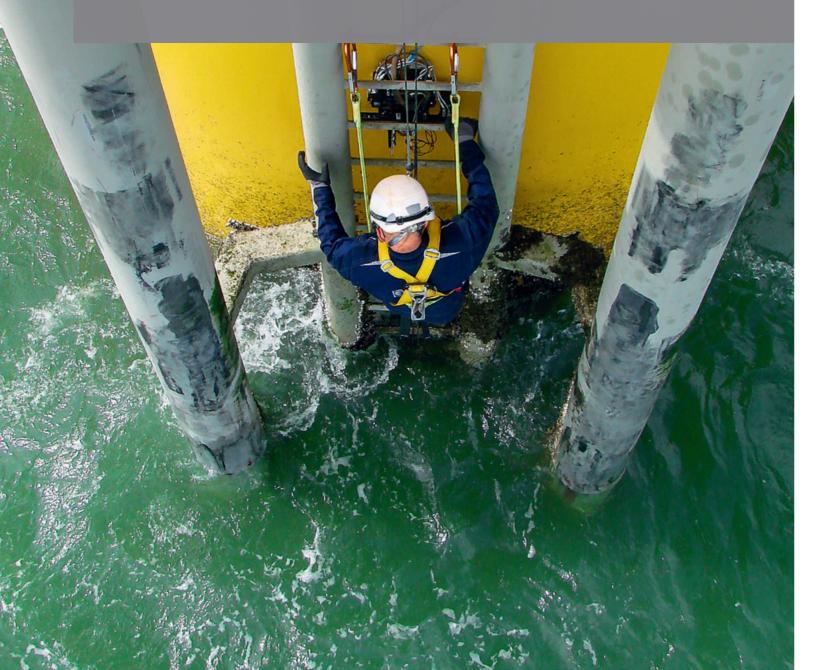
"Only after successful hydrostatic testing, we know if we have succeeded at this stage", Björn says, who, when we met, had another two weeks to go until the critical pressure test of the boiler.





SAFETY AND WORK ENVIRONMENT

Safety is important to FORCE Technology. Even if our accident frequency follows the average for service businesses of our kind, our ambition is to minimise it significantly by daily focusing on work environment and safety.



We give high priority to a good work environment and a strong safety culture. Therefore we constantly and on multiple fronts strive towards improvements in both areas.

FORCE Technology aims to achieve a strong safety culture and insists upon safety in all our activities. We make high demands of our employees, insisting that they contribute to a safe, accident-free work culture, with the goal that all employees should return home from work each day, uninjured.

In its capacity as a service company, FORCE Technology, often has to go and visit our customers and encounter a variety of different workplaces, and we must take many different types of risks into account. When the service is to be delivered at a costumers address, FORCE Technology's employees will typically encounter a workplace, they are not familiar with. The same applies to any safety risks that may be present at the workplace.

Collaboration with clients

Safety at work is a high priority at FORCE Technology and we believe that increased focus on safety means fewer accidents. An important foundation is the cooperation between our bigger customers, where our employees take part in educational and training activities on an equal footing with the client's own staff. By working closely with the client to systematically identify hazards and risks in the workplace environment, holding joint safety meetings and drawing up safety plans for jobs with an element of risks, we work intensively towards achieving a zero accident rate.

'My risk assessment'

When involved with tasks at a client's premises, the FORCE Technology employee will run a 'my risk





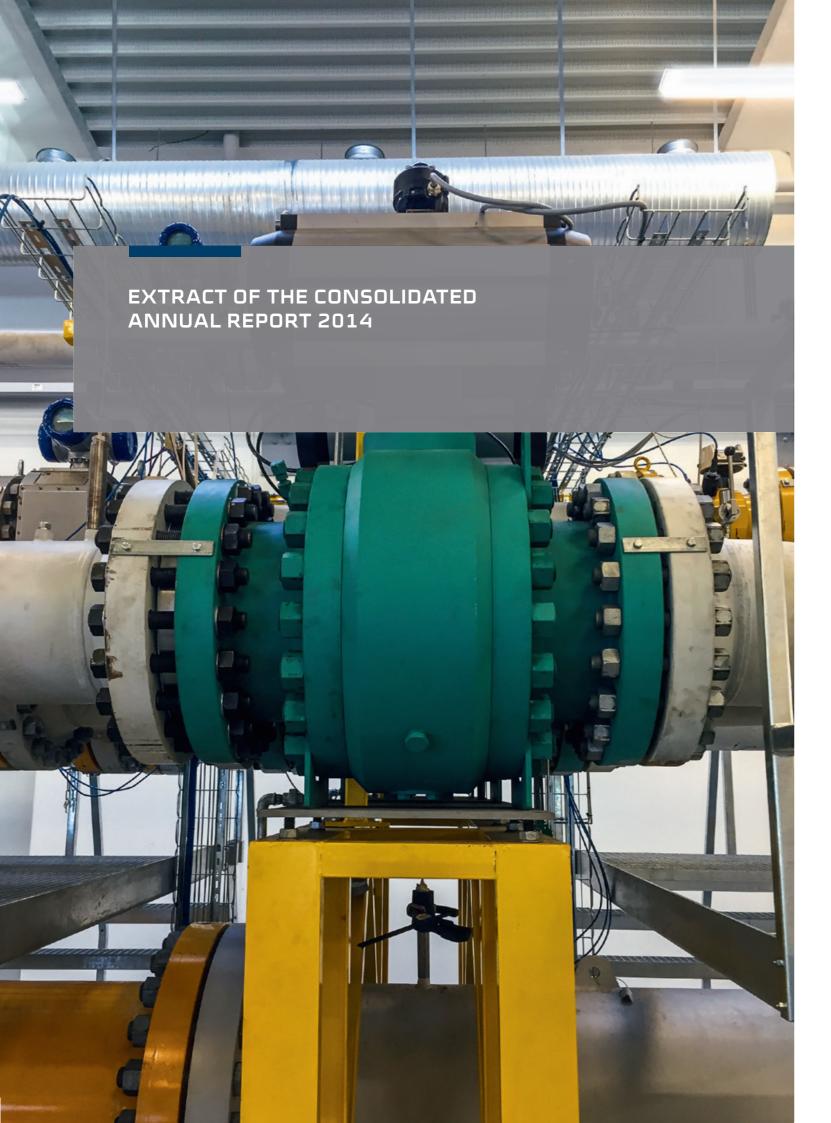
assessmen', so that work is not initiated without first being risk assessed and found to be prudent in terms of safety. An awareness on the part of the individual employee is critical to our work on safety. A FORCE Technology employee's high level of safety awareness affects not only a colleague but can also positively affect the client's safety behaviour.

Accidents

The frequency of accidents in the service sector in which we operate is unfortunately characterised by being relatively high, with 13.8 accidents per 1 million working hours resulting in absence.

FORCE Technology is no exception and equals the industry average, both in terms of accident rates and the corresponding absence due to accidents. Obviously, this is unsatisfactory and it is our ambition to reduce both accident rate and absence due to accidents, to make FORCE Technology a safer and more attractive workplace.

In our day-to-day work, we carefully monitor the safety of our client tasks and our own laboratories and workshops. We also share our knowledge and experience across the workplace environment organisation and across the company. The workplace environment organisation is widely anchored, consisting of a total of 20 safety groups in Denmark, which jointly take care of each other and the workplace environment. A part of the safety groups' work is periodic supervision of FORCE Technology's tasks both at our own and at our clients' facilities. The results are used to ensure that the best health and safety initiatives are maintained.



Profit & loss account 1 January – 31 December

	Consolidated company	
	2014 DKK 1,000	2013 DKK 1,000
Consolidated turnover	1,224,797	1,181,766
Expenses directly related to projects, outlays	243,567	209,665
Other external expenses	113,430	118,464
Personnel expenses	781,876	769,333
Depreciation and write-downs	56,890	55,474
Operating profit	29,034	28,830
Share of profit or loss	-48	731
Profit before interest, etc.	28,986	29,561
Financial income and expenses, net	-2,533	-5,522
Profit before tax	26,453	24,039
Tax	3,577	7,797
Profit before minority interests	22,876	16,242
Minority interests	565	512
Profit for the year	23,441	16,754

Balance as of 31 December Assets

	Consolidated company	
Assets	2014 DKK 1,000	2013 DKK 1,000
Fixed assets		
Goodwill	32,621	41,631
Development projects under construction	42,427	43,108
Total intangible fixed assets	75,048	84,739
Land and buildings	98,602	90,584
Equipment under construction	61,343	39,076
Furniture and equipment	146,718	132,377
Total tangible fixed assets	306,663	262,037
Participating interests	11,535	11,490
Other financial assets	1,863	435
Total financial fixed assets	13,398	11,925
Total fixed assets	395,109	358,701
Current assets		
Work in progress and stocks	76,165	90,858
Debtors, work in progress and completed work	221,450	227,049
Other debtors	42,662	37,687
Securities	42,196	26
Cash and bank balances	62,350	32,678
Total current assets	444,823	388,298
Total assets	839,932	746,999

Liabilities

	,		
		Consolidated company	
Liabilities		2014 DKK 1,000	2013 DKK 1,000
Capital and reserves		360,176	346,526
Minority interests		376	1,615
Deferred taxes		6,590	7,423
Other provisions		1,379	4,474
Total provisions		7,969	11,897
Bank debt		19,000	19,000
Prepayments		7,301	0
Mortgage debt		125,433	50,877
Total long-term debt		151,734	69,877
Mortgage debt		6,667	3,410
Bank debt		39,172	61,701
Creditors and accrued costs		60,350	45,748
Advance payments and invoicing		26,587	31,090
Other creditors		186,901	175,135
Total short-term debt		319,677	317,084
Total debt		471,411	386,961
Total liabilities		839,932	746,999

Board of directors & management

BOARD OF DIRECTORS

Erik Søndergaard Chairman of the Board

Director

Mogens Arndt Vice chairman Director

Per Blinkenberg-Thrane Director

Per Thrane Holding ApS

Henrik Carlsen Professor

Technical University of Denmark

Frederik Smidth Vice President Maersk Drilling

Jesper Thomassen President Nordic Sugar A/S

Daniela Bach Polymer specialist Employee representative

Marianne Krogsgaard Berg Marketing manager Employee representative

Bugge Torben Jensen Senior project manager Employee representative

MANAGEMENT

Ernst Tiedemann Chief executive officer

SPECIALIST DIRECTORS

Øjvind Andersen Clement Chief financial officer & Deputy chief executive officer

Jens Roedsted Director

Market & innovation

Lars Vesth Director

Information & business processes

MANAGERIAL STAFF

STAFFS

Anette Aarup Finance & administration

manager

Peter Blinksbjerg

Quality manager

Anne Krebs Company lawyer

DIVISIONS

Leif Jeppesen Vice president

Sensor & NDE innovation

Niels Krebs Vice president SonoSteam

Ulf Larsen Vice president

Inspection & testing

Peter Bo Mortensen Vice president

Energy, materials & welding

Nils Linde Olsen

Vice president

Metrology, chemical analysis, enviroment & management

systems

Peter Krogsgaard Sørensen

Vice president Maritime industry

OPERATIONAL SUBSIDIARIES

FORCE Technology Sweden AB

Hans Ole Olsen Managing director

FORCE Technology Norway AS

Henning Arnøy Managing director FORCE Certification A/S

Hans Falster Managing director

FORCE Technology (Beijing)

Co., Ltd. Nis Hansen Managing director FORCE Technology Maritime Simulation Services Pte Ltd

Francis Tan Managing director

FORCE Technology Singapore II PTE Ltd

Venkataramani Sathiyanarayanan Managing director

42 / **43**

Addresses

FORCE TECHNOLOGY DENMARK

Headquarters

Park Allé 345 2605 Brøndby Tel. +45 43 26 70 00 Fax +45 43 26 70 11 info@forcetechnology.dk

Esbjerg

Østre Gjesingvej 7 6715 Esbjerg N Tel. +45 76 10 06 50 Fax +45 75 45 00 86

Frederikshavn

Fiskerihavnsgade 13 9900 Frederikshavn Tel. +45 43 26 76 81 Fax +45 43 26 70 11

Holstebro

Nupark 51 7500 Holstebro Tel. +45 96 10 93 00 Fax +45 97 42 93 04

Lindø Industripark

Dokcentret 2, st., lejemål 8 5330 Munkebo Tel. +45 43 26 70 00 Fax +45 75 45 00 86

Kalundborg

Hareskovvej 17 4400 Kalundborg Tel. +45 43 26 70 00 Fax +45 43 26 70 11

Kgs. Lyngby

Hjortekærsvej 99 2800 Kgs. Lyngby Tel. +45 72 15 77 00 Fax +45 72 15 77 01

Alsvej 6 5500 Middelfart Tel. +45 63 41 03 15 Fax +45 43 26 70 11

Odense

Middelfart

Forskerparken 10 5230 Odense M Tel. +45 76 96 16 24 Fax +45 76 96 16 24

Vallensbæk Strand

Gisselfeldvej 4 2665 Vallensbæk Strand Tel. +45 43 53 14 78 Fax +45 43 53 20 05

Vejen

Navervej 1 6600 Vejen Tel. +45 76 96 16 00 Fax +45 43 26 70 11

Aalborg

Niels Jernes Vej 2-4 9220 Aalborg Ø Tel. +45 96 35 08 00 Fax +4543 26 70 11

Aarhus

Tueager 3, Skejby 8200 Aarhus N Tel. +45 87 34 02 00 Fax +45 43 26 70 11

FORCE TECHNOLOGY INTERNATIONAL

FORCE Technology 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 Vakåsvei 32 1395 Hvalstad Norway Tel. +47 64 00 35 00 Fax +47 64 00 35 01 info@forcetechnology.no

FORCE Technology (Beijing) Co., Ltd.

Road, Sun Joy Mansion, Chaoyang District, Beijing 100020 Beijing China Tel. +86 10 8530 6399 Fax +86 10 8530 6399

info@forcetechnology.cn

Room 707, No. 6, Ritan

FORCE Technology Maritime Simulation

Services Pte Ltd

1 CleanTech Loop, #03-05 CleanTech One Singapore 637141 Singapore Tel. +65 6684 0737

Fax +65 6499 8281 info.singapore@forcetchnology.com

FORCE Technology

Singapore II Pte Ltd 1 CleanTech Loop, #03-05 CleanTech One Singapore 637141 Singapore Tel. +65 6499 8284/4326 7394

Fax +65 6499 8281

in fo. sing a porell @forcetechnology.com

FORCE Technology's annual report 2014 has been printed in Danish, English and Swedish at a total number of 4,100.

> Layout & DTP: Karsten Lentge Print: Universaltrykkeriet



FORCE Technology

Headquarters
Park Allé 345
2605 Brøndby
Denmark
Tel. +45 43 26 70 00
Fax +45 43 26 70 11
info@forcetechnology.com
forcetechnology.com

FORCE Technology 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
info@forcetechnology.no

