



# TECHNOLOGY FOR A BETTER FUTURE

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**DANISH  
TECHNOLOGICAL  
INSTITUTE**



Her Majesty Queen Margrethe II  
of Denmark  
Patron of Danish Technological Institute



**bb** Look ahead.

Decode the coming future and stand right where  
you believe the institute's help will be necessary.  
- Gunnar Gregersen, Founder 1906



# Creating value for a century

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The institute was founded by, the young and foresighted engineer, Gunnar Gregersen in 1906. That makes us one of the oldest research and technology organisations in the world.

Gunnar Gregersen believed that technology should serve people and contribute to both work satisfaction and quality of life as well as contribute to progress and growth in society as a whole. His holistic views are still fundamental to our work. And to this day, our mission is to enhance business through new technology and competencies.

We are approved as a research and technology organisation, RTO,  
by the Danish Ministry of Higher Education and Science.

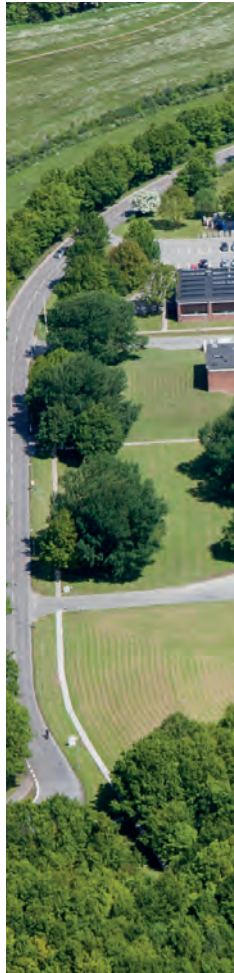
# Technology is our tool, progress our goal

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The Danish Technological Institute is an independent research and development organisation. We believe that technology has the power to improve business, society and people's lives.

By connecting technology and people as well as research and practice, our specialists utilise the latest knowledge and world-class equipment to create practical solutions for companies and society.

Our specialist areas are: agro-industry, building & construction, climate & energy, food, life science, materials, production, and innovation & talent. We enhance the innovative thinking and competence of companies, organisations and individuals.







” Our 1,000+ specialists work where research, business and society converge.

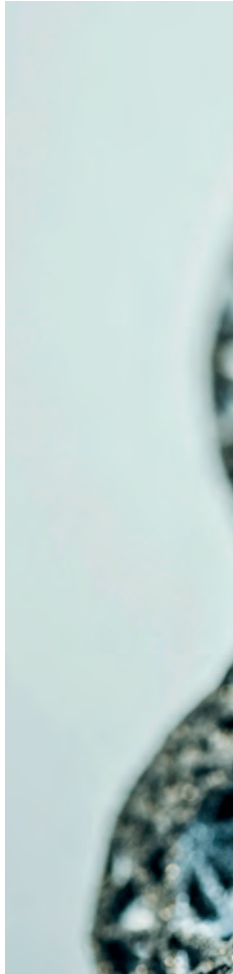
# Our promise to industry

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Being a trustworthy and valuable partner is a shared value of our 1,000+ employees. In words and through actions, they create and cherish our brand every day.

That's why we have created a promise that helps us nurture our brand and provide inspiration, insight and results for our customers.

The way we work is based on four guiding principles:





### EXPERTISE

We combine advanced knowledge with practical experience.

Our services are based on specialised expertise and state-of-the-art equipment.



### INTEGRITY

We are open and engaged in our collaborations.

Our credibility is based on integrity, transparency and impartiality.



### CREATING RESULTS

We provide solutions that create value for our customers.

Our commitment and insight drive us to achieve high-quality results.



### GROUND-BREAKING

We utilise tomorrow's technology.

We set the direction for utilising technology within the Danish business community.





Since 2011, we have participated in 2,000 R&D projects with 5,500 partners.





# A key driver in R&D

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The institute constitutes a multidisciplinary competence platform, which ensures our partners access to world-class facilities for development, test and pilot production. We play a crucial role in the innovation chain, bridging the gap between research and practical application.

In close collaboration with leading research and educational institutions, we participate in national and international development projects and have a unique network worldwide.

As a frontrunner in receiving funding for technological development, we rank as the most successful out of 362 institutions within the field of robotics in the EU's Horizon 2020 programme.

# Infrastructure and people

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With a technological infrastructure of 80+ laboratories and test facilities, our specialists enable businesses to develop, test and certify products promptly. By keeping track of emerging trends and technological changes, we support and sustain our lab infrastructure.

When assisting companies' work, internationally, we offer comprehensive testing against national and international standards in internationally recognised laboratories, under one roof.

We offer the latest technology and specific knowledge. Our staff is characterised by extensive multidisciplinaryity, a wealth of competencies and innovativeness.





**44%**

Danish  
customers

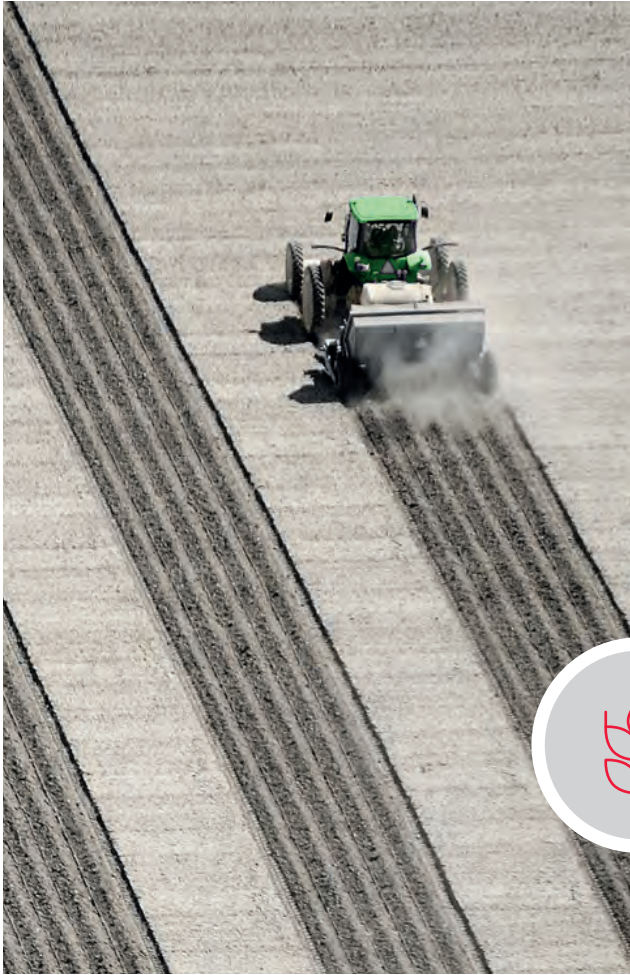
Revenue 2018  
**EUR 151 mio.**

**23%**

International  
customers

**33%**

Research and  
development activities







# AGRO-INDUSTRY

From farm to table, we unite research and business to strengthen innovation and competitiveness for an economically and environmentally sustainable agro-industry.

In the field, we test new varieties, cultivation methods and technologies for the benefit of the industry, farmers and consumers. We work with optimised plant production, health and diseases, breeding and biotechnology, and high-value bio compounds.

We advise on how biomass from farming, forestry, food production and household waste can be best exploited and refined. Over the past 10 years, we have assisted Danish greenhouse gas producers in reducing their energy consumption by more than 40 percent. Some are even becoming energy-generating.

We carry out professional reviews for agencies and ministries to support the basis of new environmental legislation.

# BUILDING & CONSTRUCTION

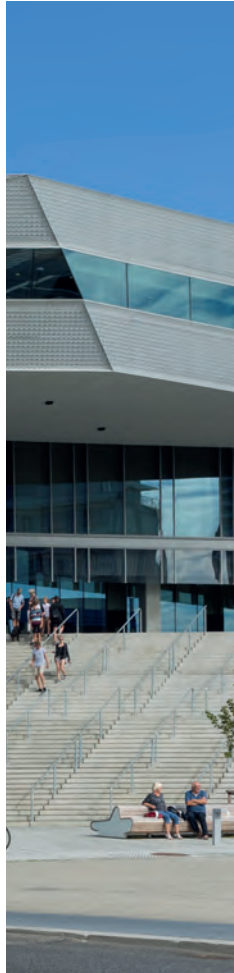
In our quest to expand productivity and competitiveness in the construction sector, we provide expertise on construction and building materials throughout their life cycle: from production and maintenance to demolition and recycling.

We help the industry develop new and unique materials from various raw materials, such as construction waste or unused agricultural biomass.

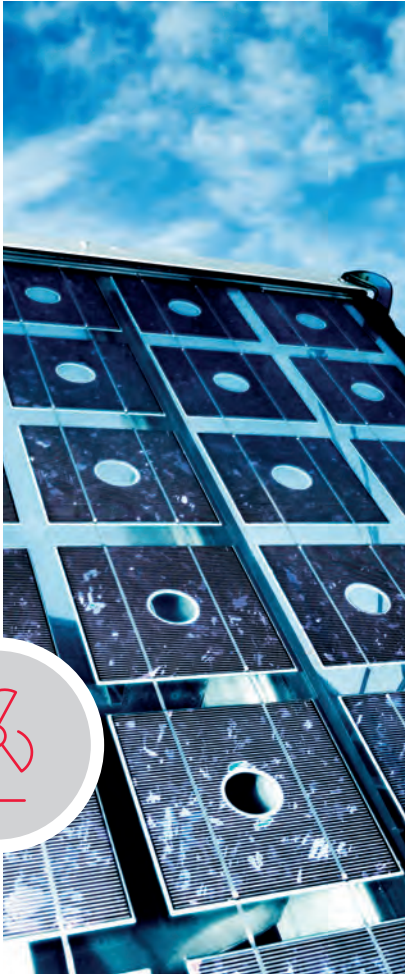
We work on flagship construction projects. For example, we have helped ensure the durability of the concrete in the Great Belt Bridge, the Øresund Bridge and the Copenhagen Metro. Our latest work involves ensuring the 120-year lifespan of the Femern Belt, the world's longest road and rail tunnel.

As well as industry, we have put sustainability on the agenda, resulting in the construction industry in Denmark being recognised as a leader in eco-innovation and sustainable construction.

For decades we have had long-term focus on the quality of - indoor air in buildings and schools, improving people's health and creating safer learning environments.











# ENERGY & CLIMATE

Everyone should have access to sustainable and reliable energy. We develop renewable energy sources and technological solutions related to transport and climate protection.

We generate groundbreaking solutions within energy efficiency, renewable energy and future smart energy systems to ensure a competitive industry and a greener society. One of these solutions is to produce battery facilities, which enable us to store wind and solar energy in a stable electricity supply system.

Our experience with natural refrigerants will help industries phase out refrigerants which have high global warming impacts. This will benefit the environment.

With the rise in urbanisation, public transportation is evolving. We measure and reduce emissions from various types of transportation in order to reduce air pollution and improve public health.

In our accredited testing laboratories, we test a wide range of products for manufacturers within the energy industry and we offer consultation on legislation and standards, including eco-design.





# FOOD

Food is important for human health and quality of life. We help the food industry ensure that food they produce is not only good for consumers but also good for the environment and the climate, whether the source of the food is plants or animals (including insects).

It is at the core of our mission to assist food companies across the entire value chain - from farm to fork - to improve or replace outmoded manufacturing methods with knowledge-based alternatives.

We have high ambitions for our customers and strive to develop technologies that create better businesses for companies and better food for consumers, which is easier to cook, healthier and climate friendly.

We build on state-of-the-art technology to ensure our customers can offer exceptional food safety, a positive work environment and - in the meat sector - optimal animal welfare.

# LIFE SCIENCE

With our customers, we create new products and services that contribute to a cleaner, safer and more sustainable society.

Our professional strengths are our competencies and large-scale laboratory facilities within analytical chemistry and microbiology, process chemistry, particle chemistry and microbiological processes with special emphasis on DNA technology.

In cooperation with industry, we develop solutions within different sectors ranging from innovative paint systems to environmental technologies aimed at cleaning air and water. We work with natural microbes to eliminate the remains of pesticides in waterworks and wastewater treatment plants. And we work closely with the global oil and gas industry to enhance oil recovery, minimise risk and reduce the environmental impact of usage.

For decades, we have developed analytical methods for industry and authorities, so that we can provide best-in-class independent analytical services. For example, we assist the Danish Environmental Protection Agency in their continued efforts to prevent the presence of harmful chemicals in consumer products.











# PRODUCTION

As specialists in digital manufacturing, automation and robot technologies, we play a significant role in strengthening companies' competitiveness and growth.

We support the introduction of new technologies and digital transformation by enhancing customers' competencies and providing development, test and demonstration facilities.

As Northern Europe's largest centre of excellence within automation and robot technology, we combine the latest research with knowledge and technology to develop robotic solutions that maintain and create jobs.

With a trained eye, we apply familiar technologies in novel ways and implement the technology of tomorrow in existing, or new, products.

3D printing is the innovative production method of the future, where customised products can be made to meet the needs of the user, in terms of geometry and bulk size. With our new large-scale demonstration laboratory and knowledge centre, we are at the forefront of 3D metal printing in Denmark.

# MATERIALS

The development of new materials is heavily influenced by both technological advancements and sustainable demands.

From ideation and design to pilot production and market testing, our laboratories develop new types of materials such as diamond-like thin film, wear-resistant, non-stick surfaces, electrically conducting coatings as well as plastic products with functional properties and advanced lightweight constructions made from high-strength composite materials.

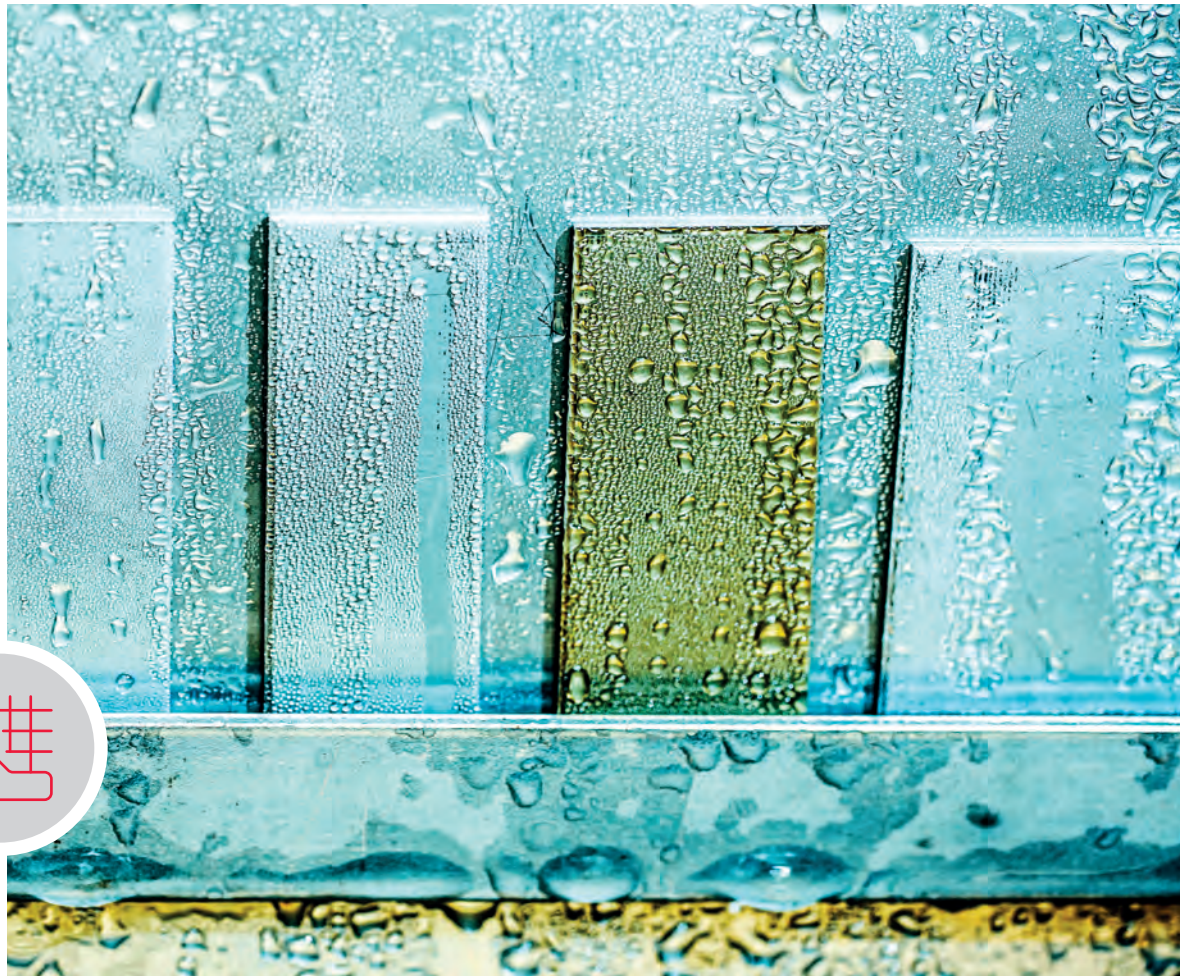
A sustainable future requires a circular approach in order to keep resources in use for as long as possible. We work with technologies to recycle plastic materials and create bio-based alternatives.

We help businesses with material characterisation and measurements, nano-coating and laser micromachining.

Our in-depth knowledge helps companies create smarter and better solutions, such as fuel cells for drones and printed electronics for smart and connected products.







# INNOVATION & TALENT

We support innovation in the private and public sector and in society as a whole.

From local to national and international level we contribute within our core fields of expertise: lifelong learning systems, employment policies, innovation training and competitiveness for sustainable growth. We offer consultancy and capacity building services, workforce development, policy analysis and advice, as well as evaluations and assessments.

By helping companies, organisations and the educational sector work systematically with new, value-adding ideas, we expand their innovation capacity. Furthermore, we help private inventors and entrepreneurs commercialise their ideas through our Inventor Advisory Service, Fablab TI and Incubator Service.

As Denmark's largest training provider for the business community, we welcome more than 17,000 people each year participating in more than 1,000 courses, training programmes and conferences. We collaborate with international partners to deliver high-level training which meets the requirements of skills now and in the future.







“ We are World Economic Forum's Danish partner in their annual competitiveness survey.







# Work with us

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We offer customers R&D solutions to create new technologies and innovation services applicable to products and services. Your project can be large or small, stand-alone or have multiple partners: our expertise comes without question.

Get access to our state-of-the-art infrastructure and benefit from our large international network of expertise.

Lower your research costs and risks through pre-competitive collaboration. Enhance competitiveness by using our specialists' in-depth technological knowledge.

# Follow us

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dti.dk

## FIND US

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DK - 2630 Taastrup

Kongsvang Allé 29  
DK - 8000 Aarhus C

Forskerparken 10  
DK - 5230 Odense



We help customers in 67  
different countries every year.



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