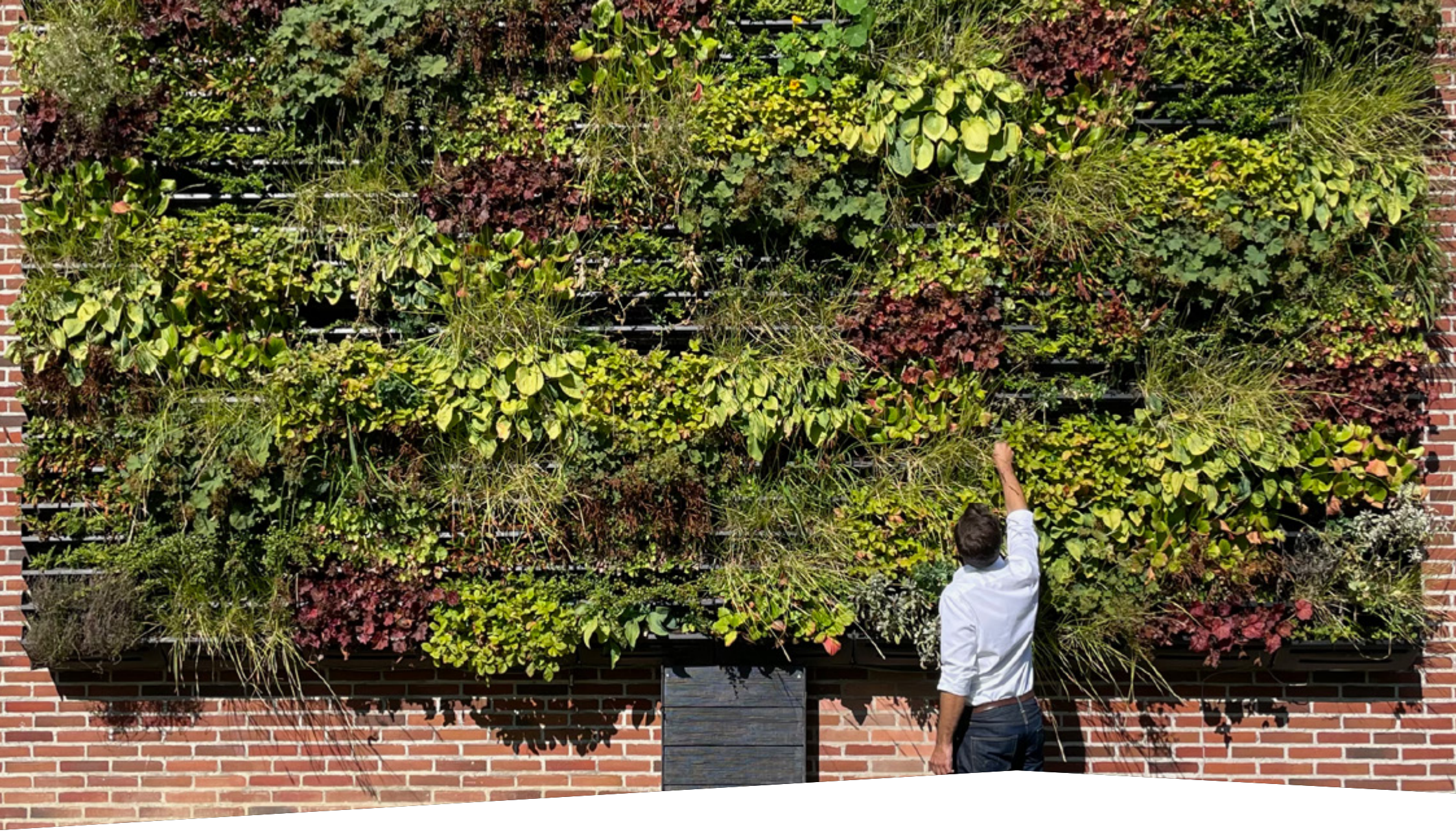


Annual Review 2021

DANISH
TECHNOLOGICAL
INSTITUTE

An excellent partner and workplace

1,000
COMPETENT SPECIALISTS

10th.
MOST ATTRACTIVE EMPLOYER*

40,000
TECHNOLOGICAL SOLUTIONS

10,000
SATISFIED CUSTOMERS

70
TECHNOLOGY INFRASTRACTURES

1,200
UNIQUE R&D-PARTNERS

Danish Technological Institute (DTI) is a self-owned and not-for-profit institution. We are approved as an RTO by the Danish Minister of Higher Education and Science. We have promoted the use of technological progress to the benefit of industry and society through development, consultancy and education since 1906. We fulfil this objective by developing new knowledge through research and development activities, which are then converted into technological services and provided on market terms. **We develop technology for a better future.**

** In 2021, DTI was named the 10th. most attractive employer in engineering and science in Universum's brand survey.*

Introduction

Jens Maaløe
Chairman of the board

Juan Farré
President

Danish Technological Institute is among the strongest partners when it comes to developing and implementing high-tech solutions in Danish companies. We are a key partner in ensuring that the green transition takes place in companies in terms of energy, materials and foods. The green transition requires technological knowledge, test facilities that are ready for industrial use and partnerships in order to achieve its goals.

In 2021, Danish Technological Institute has been an active and central partner in shaping the Danish Government's green research strategy in the form of the four green research missions - "innomissions". The Institute has applied for 11 projects in the autumn covering all four innomissions. We have also maintained our position as the spearhead in terms of bringing home knowledge and new technology in the old Horizon 2020 programme and its successor, Horizon Europe. The 19 activities under the Institute's performance contract for 2021-2024 are all key prerequisites for the development of market-relevant green technology services.

With this as its starting point, Danish Technological Institute has in 2021 been focused on strengthening the strategic initiative of making Danish Technological Institute more visible as one of Denmark's leading players when it comes to helping companies with the green transition. Currently, Danish society is faced with some difficult questions about energy vulnerability and the green transition. The political ambitions for alternative energy sources have received a renewed focus in both Denmark and the EU.

Energy efficiency has been placed near the top of the agenda in many Danish companies. Some companies can replace current gas boilers with either pure electric heating, an electric heat pump or biomass energy. For the more energy-intensive companies, the journey towards alternatives to gas is more difficult and it will require that we develop new technologies. Here, the Institute is a strong player, and we are both involved in EUDP projects and the Horizon Europe project where we develop and demonstrate industrial high-temperature pumps.

Energy is one of the three areas where the Institute has strengthened its position as an important business partner for the green transition of companies in 2021/22. The two other areas are materials and foods. In all three areas, we offer Danish companies a shortcut in the form of competences and equipment for developing and testing green technological solutions.

Danish Technological Institute's focal point is partnerships. We believe that innovation is brought about by combining the many professional specialisations and competences that we have and that this benefits companies. By being ambitious and making ourselves available in addressing important societal agendas, we can help more people do more. At the same time, we are also striving to attract the best employees and maintaining our very high ranking on the list of the best workplaces in Denmark.

Danish companies need a credible partner that can help them in their encounters with complex technological challenges. Danish Technological Institute's agenda is thus more current and relevant than ever before: Technology for a better society.

Danish Technological Institute and the big transitions

FOUNDATION

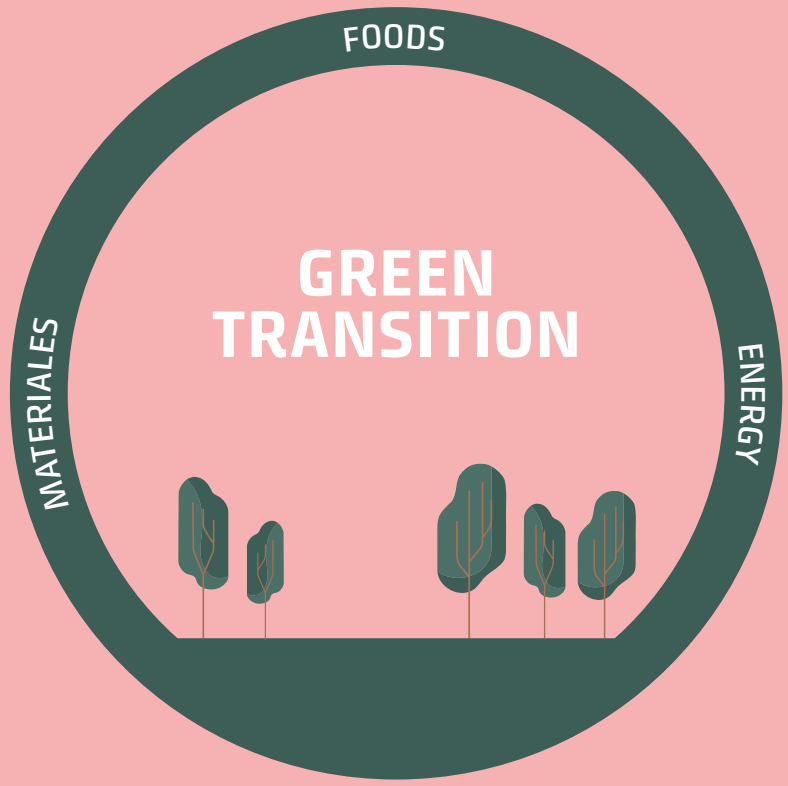
Specialists
1,000 specialists that translate technology and industry knowledge into technological solutions.

Partnerships
Strong partnerships with 1,200 unique R&D partners and 10,000 customers.

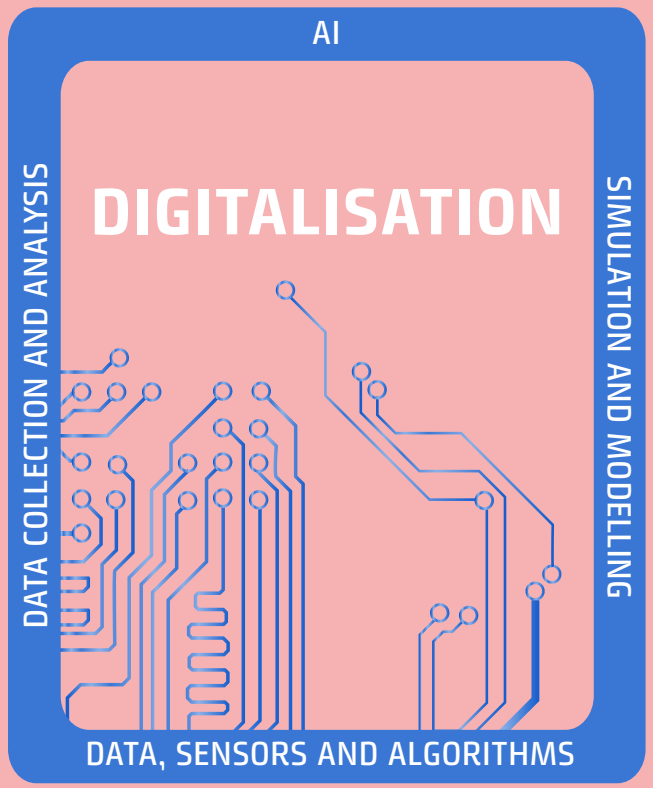
Equipment
More than 70 facilities for testing, demonstrating and developing technological solutions.

Knowledge
We develop and apply our knowledge about technology, markets and industries through 360 R&D projects and 40,000 technological solutions.

THE BIG



TRANSITIONS



VALUE CREATION

Technology is a key accelerator in the green transition for the benefit of society and the business community. We contribute by:

- Translating society's green agenda into greener technological solutions
- Accelerating the green transition of companies
- Making companies more competitive

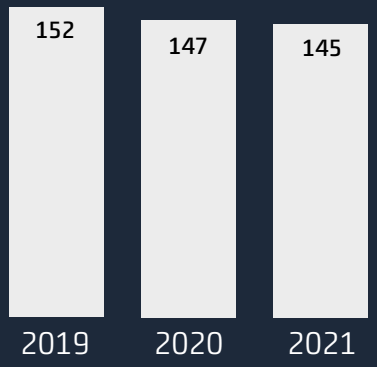
Together, we are taking steps towards cleaner, safer and greener solutions that go hand in hand with profitable businesses.

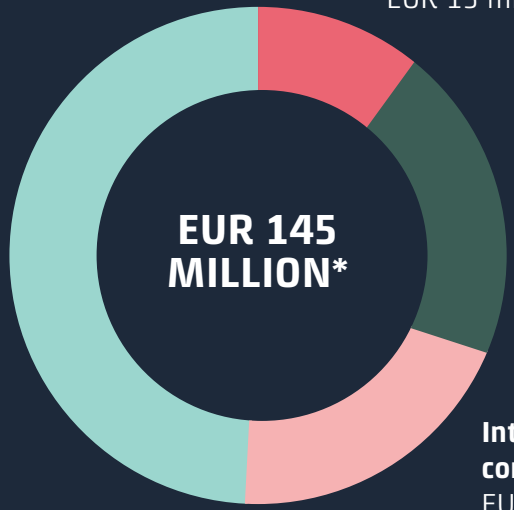
KEY FIGURES

In 2021, Danish Technological Institute achieved a satisfactory financial result of EUR 5.1 million, which is approximately EUR 2.4 million more than budgeted and EUR 2.3 million higher than in 2020. Due to the corona pandemic, it has not been possible to achieve a growth in turnover. The total turnover amounted to EUR 145 million. The decrease in foreign commercial turnover from 2020 to 2021 was mainly due to the divestment of a foreign subsidiary.

TURNOVER

EUR million





Performance contracts
EUR 15 million

Research & development activities
EUR 30 million

International commercial activities
EUR 29 million

Danish commercial activities
EUR 71 million

*Breakdown of group turnover in 2021

PERFORMANCE CONTRACTS

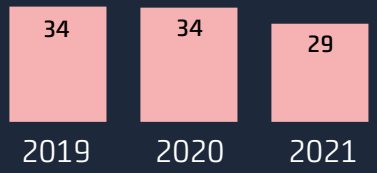
EUR million

RESEARCH & DEVELOPMENT ACTIVITIES

EUR million

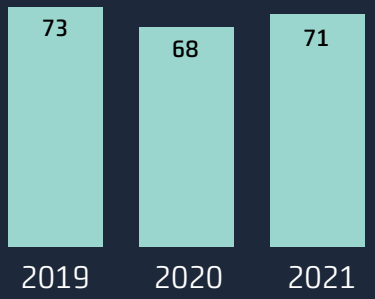
INTERNATIONAL COMMERCIAL ACTIVITIES

EUR million



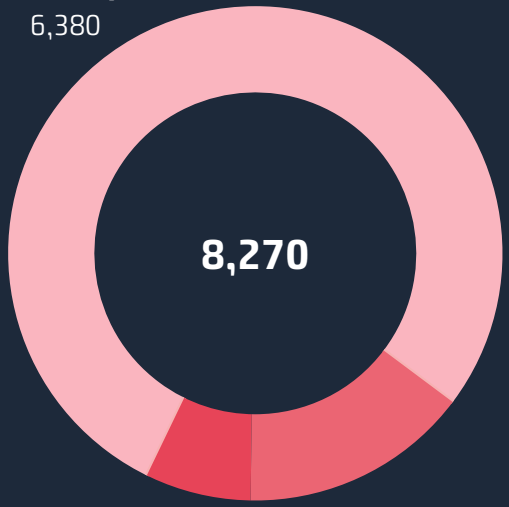
DANISH COMMERCIAL ACTIVITIES

EUR million



DANISH BUSINESS AND INDUSTRY CUSTOMERS*

Small enterprises
6,380



Large enterprises
620

Medium-sized enterprises
1,270

*breakdown of Danish business and industry customers in 2021 by company size.

BREAKDOWN IN COMMERCIAL TURNOVER BY CUSTOMER TYPES*

Danish business and industry customers
EUR 55 million

International customers
EUR 29 million

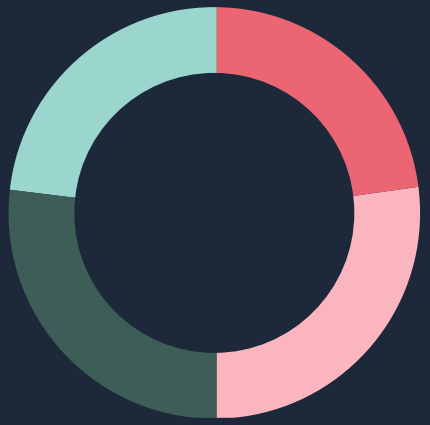
Danish public sector customers
EUR 16 million

*Group commercial turnover by customer type in 2021

WORLD-CLASS SPECIALISTS*

Other expert personnel
24 %

Doctors and PhDs
23 %



Other academics
27 %

Engineers
26 %

*Employee composition for the Institute in 2021

360

R&D-PROJECTS

54

EUR MILLION IN R&D-ACTIVITY

Learn more about how we performed in 2021. See our Summary Financial Statement.

Contents

Energy

The energy system of the 2020s

In the performance contract dealing with the energy system of the 2020s, Danish Technological Institute will develop technologies, products and testing methods that support an optimal linking between smart energy components such as solar power plants, heat pumps, energy storage units and charging stations for electric cars.

We ensure that companies obtain access to knowledge about, for example, standardisation, protocols, data security and regulatory frameworks. We also construct and demonstrate the performance of facilities that test several energy components in a single dynamic.

With the knowledge we have attained and the facilities we have developed, the Institute will be able to test the operations of sector-linked systems under realistic and dynamic operating conditions.

"The energy system of the 2020s" performance contract is supported by the Danish Ministry for Higher Education and Science.

Large energy savings in buildings

With intelligent climate control, there is potential for major energy savings in large buildings. This also applies to the 500 buildings for which Neogrid Technologies ApS supplies intelligent, data-based heating control. Under the auspices of AI Denmark, we have helped Neogrid to identify the AI methods, algorithms and tools that, together with their existing technologies, optimally reduce energy waste in complex buildings.

"The partnership with AI Denmark has made us really aware of how we can develop our technology with AI tools so that we supply the services that our customers want."

- Henrik L. Stærmose, CEO, Neogrid Technologies ApS

The project is supported by the Danish Industry Foundation and it is a partnership between Danish Technological Institute, the Alexandra Institute, Aalborg University, Technical University of Denmark, University of Copenhagen and IT University of Copenhagen.

Denmark needs to be a trailblazing Power-to-X nation

Power-to-X is an important factor in the green transition since it allows us to store electricity from wind turbines and solar power as fuel. With Power-to-X, we can replace some of the fossil fuels with e-fuels that do not emit CO_2.

Together with the Institute, companies can develop new materials, components and processes for Power-to-X technologies while also obtaining access to our laboratories and testing facilities.

"In Denmark, we are already competitive within e-fuels based on electricity from solar power and wind turbines. If we continue to develop Power-to-X technologies, we can become a world leader in components."

- Christian Kallesøe, Danish Technological Institute

The "Energy storage and conversion" performance contract is supported by the Danish Ministry of Higher Education and Science.

High-temperature heat pumps for sustainable process heating

The Institute is working on developing and demonstrating three high-temperature heat pump technologies that use natural cooling methods such as steam, hydrocarbons and CO_2.

The goal is to electrify a large part of the industrial process heating needs while also increasing energy efficiency and reducing the emission of greenhouse gases significantly. The results will be a key technology for the Danish process industry in terms of being able to meet the climate targets, and it will place the Danish heat pump industry in a leading role.

SuPrHeat is co-financed by EUDP. The participants in the project are: Danish Technological Institute, DTU Mechanics, Victor Energi og Køleteknik A/S, Alfa Laval, Arla Foods Amba, CS TechCom, Danfoss, Danish Crown, DuPont Nutrition Biosciences ApS, Fuchs Lubricants, Gea Bock, GEA Process Engineering, Hamburg Vacuum, Harboes Bryggeri A/S, Spirax Sarco and Viegand Maagøe.

Energy-efficient products with thermal topology optimisation

Thermal topology optimisation is to create more energy-efficient products for Danish industry.

With this method, we test energy-related properties such as heat transfer, flow or cooling for the purposes of creating a simple yet powerful online tool.

The goal is to provide industry with a quick and easy way of optimising, for example, industrial ovens, electric cars and cooling components.

The Easy-E project began in October 2020, and the first energy-saving prototypes have already been manufactured using 3D metal printing.

Danish Technological Institute is the project leader for this project, which is supported by EUDP. The knowledge partners include Technical University of Denmark and Oqton Danmark, while industry is represented by Aarsleff, Danfoss Cooling, Asetek, Bühler Group and GRAM Equipment.

Learn more about how we help companies in the green transition:

Foods

The sustainability of foods needs to be found in the value chains

In order for Danish food production to be able to transform itself into producing climate-neutral foods, it is necessary to examine every single link in the value chain from farm to fork. The "Sustainable foods" performance contract is a step on the way towards achieving this.

For this performance contract, the Institute is working with four focus areas: New raw materials, manufacturing technologies, green products and logistics and packaging.

What all of this work has in common is that both quality, food safety and security and the degree of climate impact improvements in food production need to be documented.

The "Sustainable foods" performance contract is supported by the Danish Ministry of Higher Education and Science.

"If we are going to be able to meet the ambitious targets for reducing climate impacts, we need to find solutions in both existing and new value chains."

- Lars Hinrichsen, Danish Technological Institute

Black soldier flies bio-convert food waste

Black soldier flies have a unique ability to bio-convert food waste - thereby transforming leftover food into protein-rich larvae that can be used for, for example, animal feed. In the RECIPE project, the goal is to make insect production both cheaper and more efficient.

In the project, we are experimenting with freezing larval eggs and cooling newly hatched larvae - all for the purposes of facilitating a more agile production setup that is less vulnerable to factors such as disease or reduced productivity in the insect colonies.

The project is supported by Innovation Fund Denmark (Eurostars), and it is a partnership between Danish Technological Institute and the companies FreezeM and Bühler Group.

Better utilisation of resources in the fishing industry

Before a fish ends up as a cut of meat in the supermarket freezer, it will have passed through a fileting machine that removes blood and bones. Today, about 40 per cent of the fish end up as fish trimmings. With the Powerfish project, Danish Technological Institute and Source Technology want to minimise the waste of usable fish meat.

The project's end goal is to gain sufficient knowledge and experience to be able to calculate the financial gains that the fish industry can achieve by using new technologies for processing fish trimmings - a so-called 'proof of principle'.

Powerfish is a Food and Bio Cluster project under the Danish Ministry of Higher Education and Science. The project partners are Danish Technological Institute, Source Technology, Insula and Reduced.

"This is food that was previously wasted, and now we need to find out what potential products fish trimmings can actually be used for."

- Simon Hvid, Danish Technological Institute

Easy to eat a plant-based diet

At Danish Technological Institute, we help food companies to develop new plant-based foods - for example via extrusion.

At the Institute's pilot facility for extrusion, companies can develop and test their extruded products such as plant-based products that resemble meat in taste and texture and all forms of snacks and breakfast products.

The pilot facility can be used together with the Institute's laboratories to develop variants of taste, determining the best-by date and for consumer tests.

The partnership has been made possible via two InnoBoosters financed by Innovation Fund Denmark.

Using techniques such as extrusion, Hey Planet has worked with Danish Technological Institute to successfully create a meat-like product that is based on insects and pea protein which is highly nutritious and tasty.

"Danish Technological Institute is a good partner that has listened to our wishes. Their facilities, expertise and good ideas have allowed us to reach our goals 100 per cent. The impossible was made possible."

- Malena Sigurgeirsdottir, Co-Founder, Hey Planet

Electrify the ham and save both time and energy

One of the most important processes in the food industry is heat treatment, which ensures a high level of food safety, a suitable best-by date and an appealing structure, taste and appearance. However, cooking firm foods such as meat is a slow and energy-intensive process.

"Ohmic heating", which the technology is called, is already a well-established technology that is used particularly for quick and energy-efficient heating of liquid foods such as fruit puree, soups, melted cheese, etc.

We are working on developing ohmic heating so that it becomes possible to cook firm foods such as meat products quickly using energy-efficient processes that maintain the level of quality.

"The new green agenda has inspired us to work with a new technology that is currently used to heat liquid foods."

- Christian Vestergaard,
Danish Technological Institute

The project is funded by Elforsk. The project team consists of the equipment supplier Alflow, the knowledge supplier Danish Technological Institute and Danish Crown as the end user.

Learn more about how we help companies in the green transition:

Materials

Bricks made from brick waste

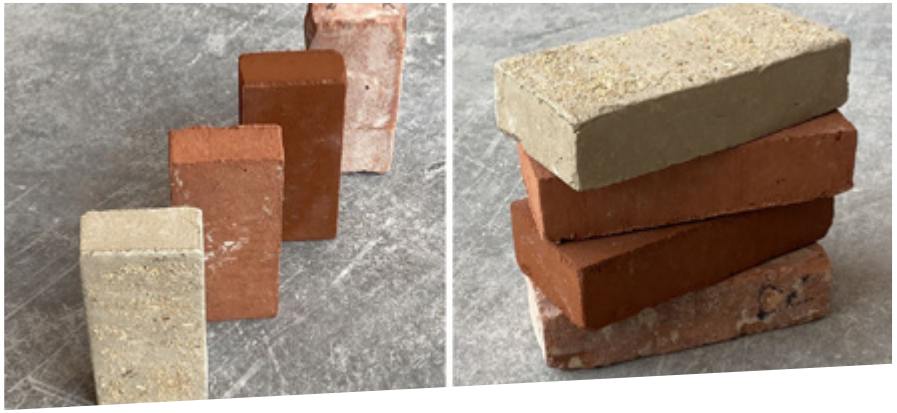
Each year, we generate about 400,000 tonnes of brick waste in Denmark, and only a small portion of this is recycled into new bricks. We are assisting a company called BrickCycling to optimise and perform quality assurance on a new type of brick that is made from crushed brick waste.

The brick reduces the use of non-renewable resources such as clay and sand. At the same time, the production process involves less CO_2 emissions since neither cement nor chalk or heating are used in the process.

The goal is to determine the potential of the brick in terms of replacing conventional facade materials.

The partnership with BrickCycling is a preliminary project that is supported by the Danish Environmental Protection Agency. The participants in the project are BrickCycling, RGS Nordic and Danish Technological Institute.

"The assistance and advice that we have received from Danish Technological Institute have been invaluable." *- Andreas Schultz Ohrt, Co-owner of BrickCycling*



Recycling materials in the metal industry

In the European metal industry, there is a growing demand for raw materials.

Since newly extracted raw materials are limited, there is a growing demand for recycling and upcycling materials and products in the metal industry.

The amount of titanium scrap alone will grow to approximately 100,000 tonnes per year in the next decade. Titanium scrap is a secondary source of raw materials that is not currently being exploited by European industry.

Therefore, Danish Technological Institute is working on developing methods of recycling that allow for more recycled titanium to be used in various industrial technologies such as Powder Bed Fusion, Cladding, Coating, MIM and the traditional metal industry in the VARETIT project.

The project is financed by Eureka Network, and it is a partnership involving Bühler Group, CRMGroup, Granutools, IONICS, Revatech, Euler 3D and Danish Technological Institute.

From destruction to recycling of ethanol

Ethanol is an invaluable solvent for many production companies. At pK Chemicals A/S, which produces ingredients for the pharmaceutical industry, ethanol is used in cleaning processes for the company's products.

The Institute and pK Chemicals A/S are currently developing a new process that makes it possible to clean and reuse the ethanol directly in the production process. The goal is for the developed solution model to be established on-site at pK Chemicals and to reduce the company's ethanol purchases by 80 per cent.

The recycling of ethanol has the potential of reducing CO_2 emissions by 22,000 tonnes per year in Denmark alone.

The project is supported by MUDP under the Danish Environmental Protection Agency, and it is a partnership between pK Chemicals A/S and Danish Technological Institute.

Moving towards zero waste in the wind turbine industry

Currently, wind turbines are 85-90 per cent recyclable - however, the composite materials in the blades are the greatest obstacle for a fully circular raw materials circuit.

Together with a group of leading companies and knowledge institutions, we have developed a new technology that can fully recycle composite materials - including those used to make wind turbine blades.

In the CETEC project, work is being done to present a complete solution for both the implementation and commercialisation of the new recycling technology - and this will be an important step towards having a wind turbine industry that does not produce waste.

"Vestas has already committed itself to a zero-waste wind turbine production by 2040 at the latest, and CETEC will be an important milestone towards reaching that goal as it will potentially solve the problem of disposing of wind turbine blades."

- Allan Korsgaard Poulsen, Head of Sustainability and Advanced Materials, Vestas Innovation and Concepts

The project is headed by Vestas and partly financed by Innovation Fund Denmark. The other project partners are Olin Corporation, Danish Technological Institute and Aarhus University.

The future of take-away packaging

In the fight against disposable plastics, paper packaging may be the future for take-away and ready-made meals.

Danish Technological Institute has worked together with Re-bag A/S to develop packaging produced by cellulose fibres. This new type of packaging has the potential to replace the traditional plastic packaging, as cellulose fibres are a sustainable biomaterial and a reusable resource.

We have optimised the packaging by adding an advanced combination coating so that it is now suitable for storing food and to be part of a circular loop in the paper/cardboard fraction.

The solution is groundbreaking, as paper-based food packaging such as, for example, milk cartons and takeaway boxes are normally laminated with either a thin layer of plastic foil or wax, which makes them unsuitable for being sorted with paper waste.

"The Institute is an important stakeholder for Re-bag, both in terms of developing new materials, as a sparring partner and for finding the production-friendly solutions that are needed to scale things up."

- Mette Vinding, CSR Manager at Re-bag

Learn more about how we help companies in the green transition:

Digitalisation as a lever for the green transition

Vision and artificial intelligence reduce food waste

Automation in the food industry can help to make the management of food more productive, reduce food waste and relieve employees of hard manual tasks.

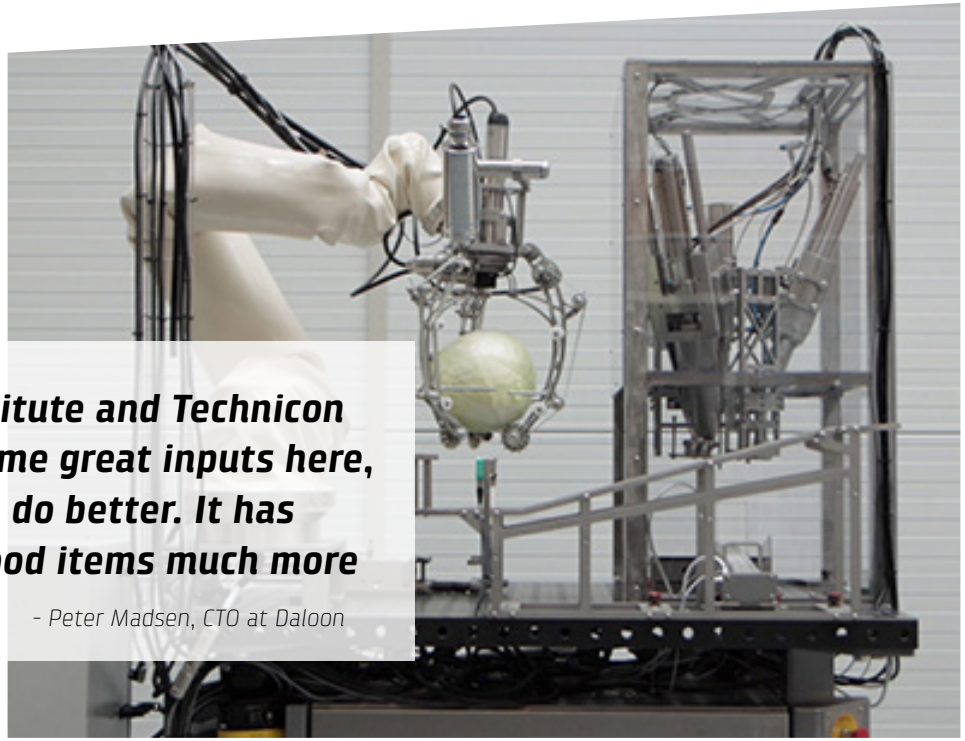
At Daloon, cabbages are used to make spring rolls - but as the cabbages vary in size, diameter and shape, it is difficult to make a machine that can handle them. Therefore, the system integrator Technicon has worked together with Danish Technological Institute to develop a prototype of a robotic solution under the auspices of the EU project called agROBOfood.

The solution uses cameras and artificial intelligence to find the cabbage and its stem. By visually identifying each head of cabbage, data is gained on its diameter and the size of the stem. This data can be passed on to the boring machine, which then removes the stem precisely. This significantly reduces the waste produced during the process.

"Danish Technological Institute and Technicon have really come up with some great inputs here, and this has helped all of us do better. It has allowed us to manage our food items much more precisely."

- Peter Madsen, CTO at Daloon

AgROBOfood is financed by the EU's Horizon 2020 programme and is intended to promote the use of robotics in the food industry.



Growth in the agroindustry - powered by data

We help the agroindustry optimise processes and use data to design better products, predict errors and replacements needed or to show the climate impacts from production processes. Through intensive development processes, the Institute makes our competences in working with digital business models, artificial intelligence, machine learning and data mining available to companies. Together with the company One2Feed, we have worked on optimising the utilisation of available data from cameras in their automatic fodder units for dairy farmers.

"It is no doubt the access to expert knowledge that has taken us a long way along our digital journey in a short period of time."

- Jesper Scriver, Sales and Support, One2Feed

"Growth in the agroindustry - powered by data" is a new project supported by the Danish Industry Foundation. The project is a collaboration between Aarhus University, Dansk Agroindustri, SEGES Innovation and Danish Technological Institute.

Intelligent and energy-efficient interior climate technologies

In the Institute's new and advanced interior climate laboratory, we develop and test technologies for the heating, ventilation and cooling of buildings.

The laboratory can automatically model and set the dimensions of a room. At the same time, we can stipulate factors such as sunlight, cold and heat from humans that impact the interior climate in buildings.

The interior climate laboratory's data platform collects and analyses data on the function, operating conditions, services and interior climate impact of the interior climate technologies. A digital 'twin' also ensures that the testing and development tasks can easily be monitored on a screen.

Together with Airmaster A/S, we are working on developing an intelligent, energy-efficient and adaptive control system for a heat pump-driven ventilation unit. The unit is controlled based on algorithms that adjust and optimise the interior climate to match current and projected use of the building and interior climate.

The use of artificial intelligence with Model Predictive Control is to ensure that the developed ventilation unit can adjust its services to the actual need for ventilation, heating and cooling based on the desired interior climate.

The "Development of an intelligent, energy-efficient and adaptive control mechanism for a heat pump-driven ventilation unit" project is funded by Elforsk. The participants in the project are Airmaster and Danish Technological Institute.

Drones are to extend the life of the Great Belt Bridge

Drones, sensors and artificial intelligence can become the eyes and hands that will make the Great Belt Bridge outlive most of us.

We are developing the drone technology to be able to spot cracks and to determine how deep they are. This is done by the drone attaching itself to the bridge and using a robotic arm to inspect the depth of the crack using ultrasound sensors.

Advanced software and algorithms assist the drone in identifying the crack, positioning itself correctly by the crack and taking measurements in the correct locations.

One of the advantages of using drones to investigate cracks is that they are discovered before they become so serious that major repairs are needed.

The project is called DroneDeploy and is a Odense Robotics collaboration with Sund & Bælt, Danish Technological Institute, Technical University of Denmark, Dansk Drone Netværk and Senseable.

"It is projected that the bridge will remain usable for about 100 years. However, we are aiming for 200 years. Specifically, those 100 additional years will save an additional 750,000 tonnes of CO_2."

- Finn Bormlund, Project Manager at Sund & Bælt

We are 160 digitalisation experts that assist companies with their digital transformation "

Excerpt from Management's review

Danish Technological Institute in the green transition
In 2020, the Danish Government presented a strategy for investments in green research, technology and innovation. Research and innovation play a very key role in allowing Denmark to meet the ambitious climate targets it has specified for 2030 and 2050. A key element of the strategy is to ensure a close partnership between knowledge institutions and the business community, which need new technologies for green solutions.

In 2021 Danish Technological Institute has been focused on strengthening the strategic initiative of positioning Danish Technological Institute as one of Denmark's leading players when it comes to helping companies with the green transition. We have the competences to translate societal agendas concerning the green transition into concrete technological solutions that are valuable to companies. The special strengths of Danish Technological Institute are related to sustainable materials, energy efficiency and the food of the future.

Stronger partnerships in the green transition
In 2021, Danish Technological Institute has been an active and central partner in shaping the Danish Government's green research strategy in the form of the four green research missions - "innomissions". All of the Institute's interdisciplinary competences have been brought into play in formulating the initial roadmaps for the four missions, and funding for 11 projects has been applied for in the autumn of 2021 involving all four missions.

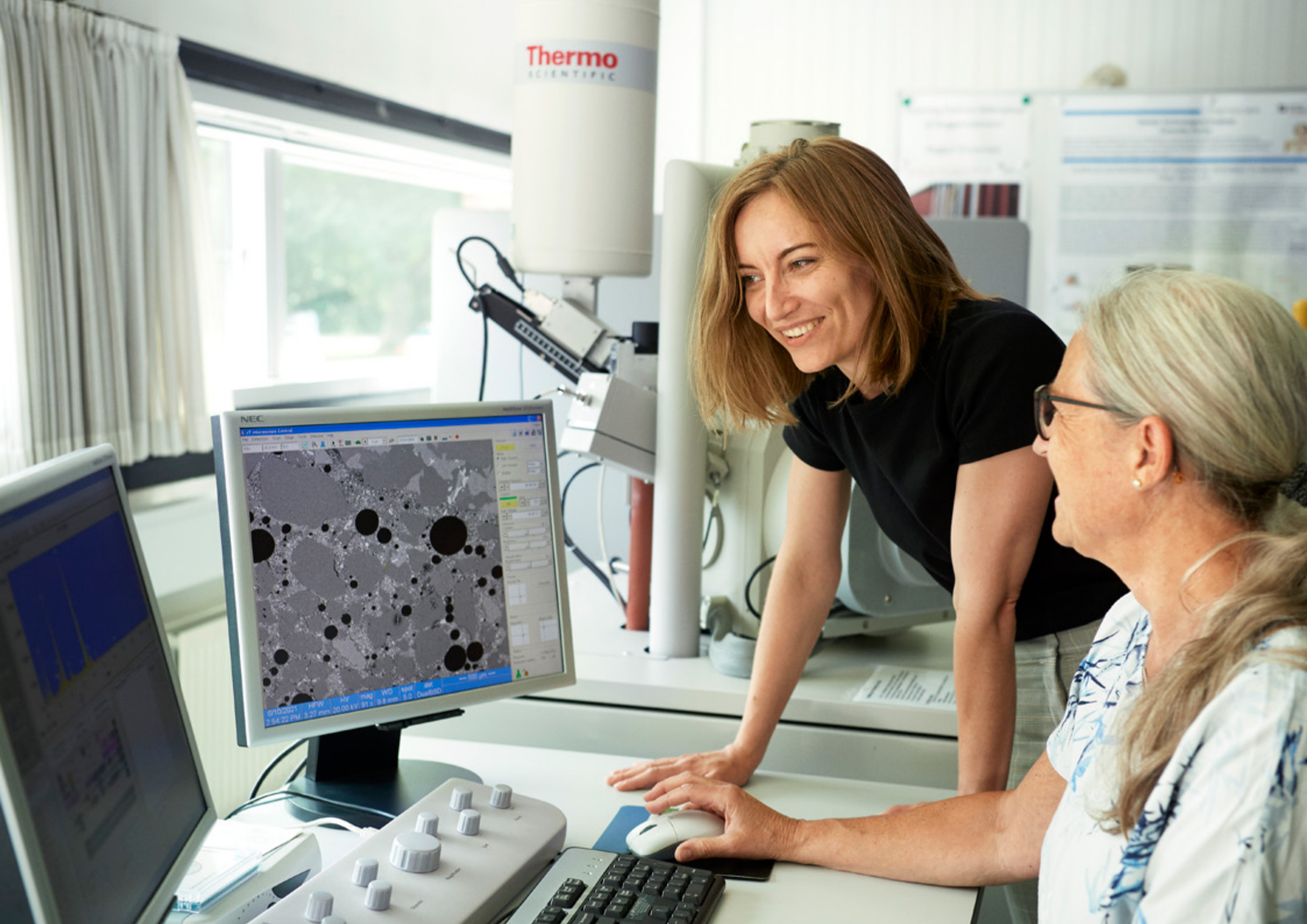
We look forward - and beyond borders
2021 marked the transition from Horizon 2020 and the mission-based Horizon Europe. Together with the five major Danish universities and the Capital Region of Denmark, the Institute has taken the lead when it comes to bringing home projects and funds via Horizon 2020. The knowledge brought home via the projects is a prerequisite for new research-based knowledge and technology being widely disseminated to companies throughout Denmark.

In 2021, the Institute has applied for funding for 39 projects in the new Horizon Europe, and it has had a concrete focus on maintaining its position as the spearhead when it comes to bringing home important knowledge and new technologies that will benefit Danish companies.

Testing green solutions for Danish companies
In 2021, the Institute has had a strong focus on the green solutions with the most potential - and it has served as a shortcut available to Danish companies in the form of competences and equipment for the development, demonstration and testing of the green solutions.

The 19 activities under the Institute's performance contract for 2021-2024 are all key prerequisites for the development of market-relevant green technology services. All of the focus areas are shaped via a close dialogue with 19 Advisory Boards consisting of more than 200 representatives from the Danish business community.

Technology for a better society
It is very positive that 2021 has given the Institute an even stronger basis for translating technologies into a greener future. Via strong partnerships, a focused societal role in the green transition, a constant expansion of relevant technological services and, not least, by continuing to have 1000 high skilled specialists available to serve the needs of society and companies.


Thermo
SCIENTIFIC
NEC

We create value and accelerate the green transition

Companies are taking small steps each day towards realising their green transition. The Institute offers a shortcut for Danish companies in the form of making competences and equipment for testing, demonstrating and developing green solutions available.

In 2021, we have asked more than 200 companies the following question: Based on your knowledge of Danish Technological Institute, what do you think are the special strengths of the Institute when it comes to the green transition and sustainability?

The Institute brings knowledge from Danish and international universities into companies

Very much on the cutting edge

Danish Technological Institute is a good sparring partner for exchanging knowledge and ideas

The Institute is focused on relevant aspects of the green transition

It is important that the Institute offers an opportunity to have research projects

The Institute's employees are highly skilled and have a lot of knowledge in this area

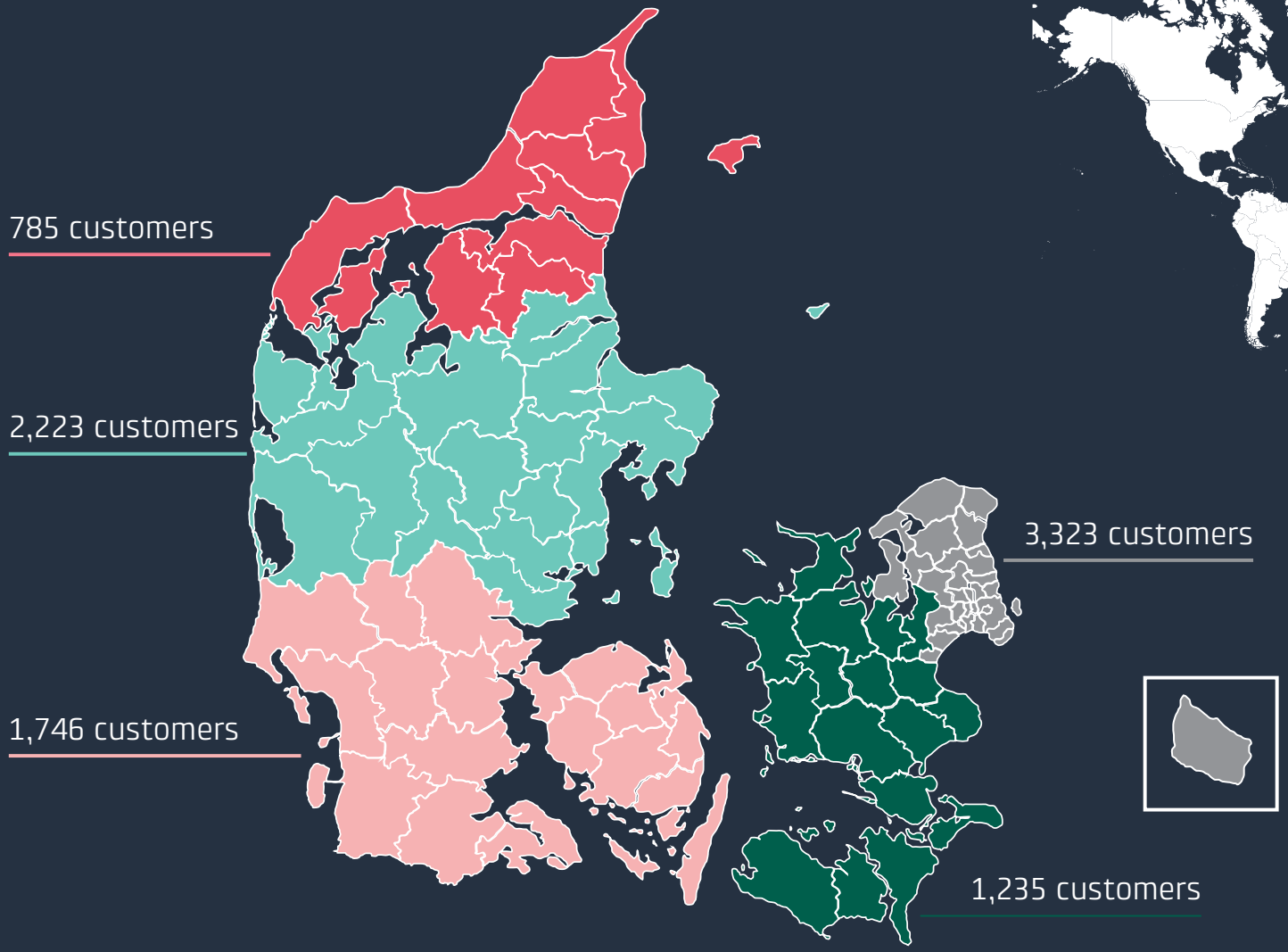
Danish Technological Institute has both practical experience and industry knowledge

They link professionalism with political initiatives

Danish Technological Institute knows what is going on!

The Institute explains how and gets a systematic framework set up. They stand for expertise combined with systematic thinking

9,000 DANISH CUSTOMERS EVENLY SPREAD THROUGHOUT DENMARK*



1,000 INTERNATIONAL CUSTOMERS IN 65 COUNTRIES

HIGH CUSTOMER SATISFACTION

**The group's Danish customers by region in 2021*

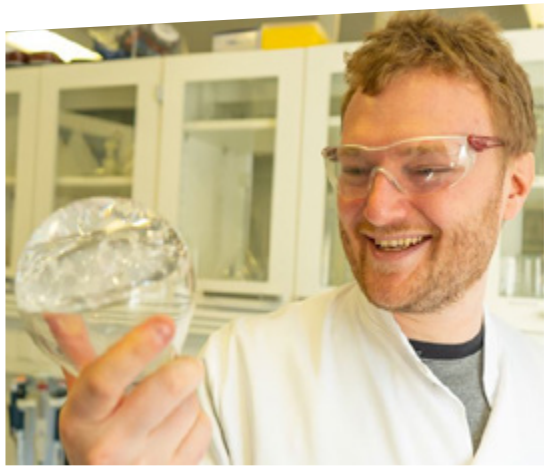
2021 – Year in review

APRIL

Our plastics expert wins the Ph.D. Cup

After a convincing three-minute talk about his work with biodegradable plastics, one of the Institute's plastics experts - Andreas Sommerfeldt - won the Ph.D. Cup 2021.

The research took place at Aarhus University where Andreas completed his Ph.D. in organic chemistry and nanoscience. Currently, Andreas is working on recycling polyurethane plastics and on recycling technologies for textile waste at Danish Technological Institute.



JUNE

Printed electronics hub opens for companies

In the European LEE-BED hub, together with Europe's leading research institutes we make our competences and facilities available for printed electronics.

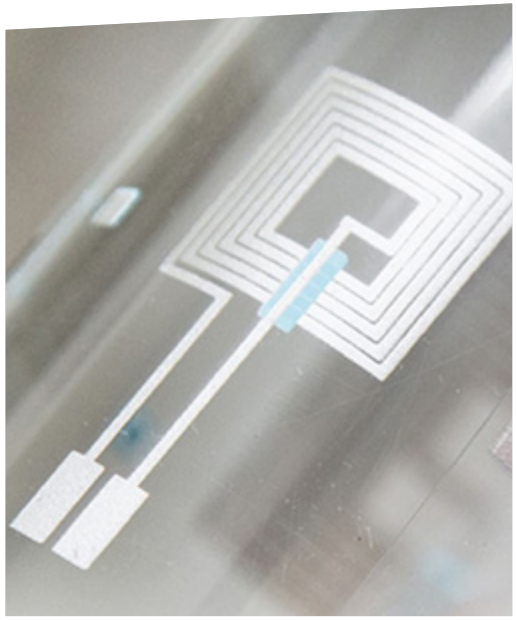
Via the hub, companies can test out printed electronics without having to first make major investments and take a significant financial risk in the start-up phase. The Institute serves as the single point of entry for the research institutes. Subsequently, companies obtain access to equipment and expertise from the institutes that offer professional sparring from the prototype phase to the pilot production phase to the full-scale production phase.

AUGUST

Robotbrag: A 100-year anniversary for the robots

Since 2016, Robotbrag has been a recurring annual event arranged by the Institute in a partnership with DIRA. The event has become a key gathering point for players working with robotics and companies that want to see and learn more about the new possibilities of robotic technology.

This year's Robotbrag had more than 3,000 participants over the course of two days and it had 76 exhibits at DIRA Business. Day two was held as a day of learning exclusively for interns and students who were given a glimpse of the technology that will characterise their working lives. The day also brought new knowledge and inspiration to the instructors who will prepare the younger generation for the future.



Food conference shows the path towards a climate-neutral food production

In November, the Institute brought together a large number of representatives from the food industry and researchers to examine the climate-friendly food production of the future.

Among other things, the participants gained new knowledge about the utilisation of residual flows in the existing food production, circular economics in food production and the future's green packaging solutions. There were also presentations about new raw materials for production of green products and methods for optimising taste and texture. The speakers included the Minister for Food, Agriculture and Fisheries, Rasmus Prehn, who emphasised that technology should be let loose throughout the Danish food industry's value chain.

NOVEMBER

We make Danish companies resilient

Via the Modstandsdygtig.dk project, we help Danish companies predict crises and show them how to seize the opportunities that come with those crises.

The ambition is for at least 1,000 companies to implement new procedures and routines that will make them ready to handle the next crisis. The project is supported by the Danish Industry Foundation and it is a strong partnership of Danish and international knowledge institutions.

DECEMBER

New innovation centre for clean air

At Danish Technological Institute, more than 50 specialists are actively working on developing solutions to ensure clean air and reduce greenhouse emissions. In 2021, the Institute opened a new innovation centre which will develop new interdisciplinary solutions to reduce air pollution and create healthier air in a close partnership with suppliers of technology, primary producers and industrial companies.

The opening of the innovation centre is part of the "Danish Innovation Centre for Clean Air Technology" initiative, which is co-financed by the Danish Ministry for Higher Education and Science.

Technology for a sustainable society

At Danish Technological Institute, we believe that technology is a critical factor in creating sustainable solutions - both when it comes to climate issues, society and economic growth.

Since 2019, Danish Technological Institute has been assessing how all of the Institute's R&D activities (totalling over 2,100) contribute to fulfilling the UN's Sustainable Development Goals. In 2021, the Institute has mainly contributed to the following of the UN's Sustainable Development Goals via R&D activities:

- 9 - Industry, Innovation and Infrastructure
- 12 - Responsible Consumption and Production
- 13 - Climate Action
- 2 - Zero Hunger

Water purification technology

With a new water purification technology based on flotation, the animal feed and food industry can save large volumens of water and energy. This was demonstrated by the lighthouse project Innoflot at Triple Nine in Thyborøn.

TripleNine expects to be able to save 12,000 m^3 of water each year - around 70 per cent - and 17,000 GJ in energy savings. Together, this adds up to about a million Danish kroner in savings per year.

The lighthouse project Innoflot is supported by MUDP under the Danish Environmental Protection Agency and it is a collaboration between TripleNine, Danish Technological Institute, Bio-Aqua and Lemvig Vand A/S.

Clean air - for everyone

Even though we all breathe the same air, air pollution still hits the poorest the hardest - international studies have identified a correlation become inequality and air pollution. We want to try to change this via the DivAirCity EU project.

The Institute's role is to ensure that the initiatives have a documented effect on air quality in urban environments.

The four-year project is supported by the EU's Horizon 2020 programme and the project participants are Danish Technological Institute, DCE - Danish Centre for Environment and Energy and Aarhus Municipality.

A 'joystick robot' is to improve the working environment at construction sites

The construction industry's employees typically lift a lot of heavy objects in repetitive movements.

In the CoCoBot project, we examined the opportunities for automation in the construction industry using mobile robots, which will improve the working environment at construction sites.

The project was completed together with, among others, STB BYG A/S, Danish Technological University and Capra Robotics ApS under the auspices of RoboCluster. The project was supported by the Danish Ministry of Higher Education and Science and the Region of Southern Denmark.

Circular economics in the construction industry

The Institute houses and operates Videncenter for Cirkulær Økonomi i Byggeriet (VCØB - in English translated as 'The Knowledge Centre for Circular Economics in the Construction Industry'). With its technical expertise, VCØB is to guide, support and involve the players in the construction sector's value chain. The aim is to identify solutions for problems and to remove barriers that hinder circular economics in the construction industry.

VCØB is co-financed by Grundejernes Investeringsfond and Realdania.

Board of Representatives

The Board of Representatives consists of members appointed by the main stakeholder organisations in Denmark.

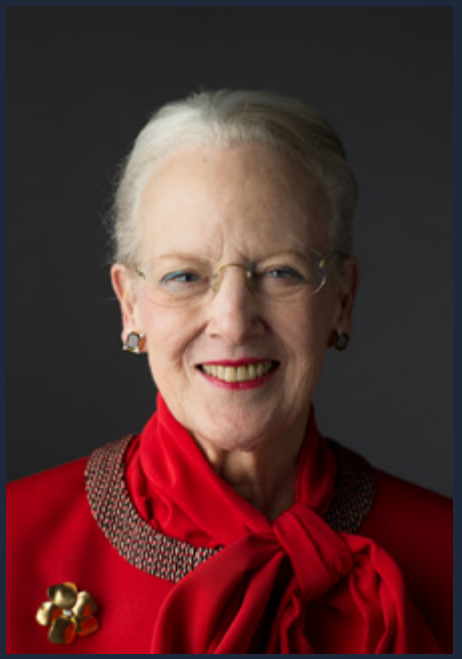
The Board of Representatives currently has the following composition:

Chairman
Jens Maaløe
Professional board member
Appointed by the Confederation of Danish Industry

Deputy Chairman
Mikael Bay Hansen
Head of department,
the Chairmans Office
Appointed by the Economic Council of Labour Movement & the Danish Confederation of Trade Unions

Name	Job title	Organisation
Appointed by the Economic Council of Labour Movement & Danish Confederation Trade Unions		
Fie Vestergaard	Head of Department	The Danish Association of Professional Technicians
Ejner K. Holst	Deputy Chairman	Danish Confederation Trade Unions
Michael Rask Pedersen	Management Consultant	3F – United Federation of Danish Workers
Peter Jacques Jensen	Chairman	Union of Commercial and Clerical Employees in Denmark, IT, Media & Industry Metropolitan Branch
Claus von Elling	Chairman	3F – United Federation of Danish Workers
Appointed by Danish Academy of Technical Sciences		
Anders Bjarklev	President	Technical University of Denmark
Lisbet Thyge Frandsen	Professional board member	
Appointed by Confederation of Danish Employers		
Claus Arberg	Director	Hvidbjerg Vinduet A/S
Lisbeth Dalgaard	Merchant	Confederation of Danish Employers
Elly Kjems Hove	Industry Director	Confederation of Danish Industry
Troels Blicher Danielsen	Managing Director	TEKNIQ
Carsten Toft Boesen	CEO	NIRAS
Appointed by the Danish Chamber of Commerce		
Søren Sass	Chief Consultant	Danish Chamber of Commerce
Appointed by Confederation of Danish Industry		
Michael Lumholt	CEO	Ticra
Clas Nylandsted Andersen	Professional board member	

Name	Job title	Organisation
Appointed by the Danish Federation of Small and Medium-sized Enterprises		
Niels Techen	Chairman	Danish Federation of Small and Medium-sized Enterprises
Thomas Krebs	CEO	Vehicle builder and auto damage business organisation in Denmark
Preben Jakobsen	CEO	Nordtec Optomatic A/S
Appointed by the Danish Society of Engineers, IDA		
Per Diget	Chairman for IDA's Commercial and Growth Committee	NIRAS Odense
Appointed by KL - Local Government Denmark		
Sven Koefoed-Hansen	General Manager	Næstved Municipality
Appointed by Danish Agriculture & Food Council		
Morten Andersen Linnet	Chief Consultant Research and Education	Danish Agriculture & Food Council
Appointed by the Danish Association of Managers		
Bjarne Henning Jensen	Team Leader	Danish Association of Managers
Appointed by Danish Regions		
Kim Johansen	Regional Council Member	Region of Southern Denmark
Elected by the Board of Representatives		
Connie Hedegaard	Chair of the Board for KR Foundation	
Per Laursen	Senior Vice President Pork Production	Danish Crown A/S
Appointed by the Institute's Collaboration Committee		
The Institute's co-operative committee has appointed the following employee on the Board of Representatives to attend without voting rights:		
Søsser Schmidt	Service and Event Coordinator	Robot Technology, Danish Technological Institute



Her Majesty the Queen Margrethe II is patron of Danish Technological Institute.

BOARD OF TRUSTEES

MANAGEMENT


DAVID TVEIT
Executive vice president
Energy and Climate
METTE GLAVIND
Executive vice president
Building and Construction
MIKAEL POULSEN
CFO
MIKKEL AGERBÆK
Executive vice president
Materials
SUNE DOWLER NYGAARD
Executive vice president
Environmental technology
LARS HINRICHSEN
Executive vice president
DMRI
JUAN FARRÉ
President
ANNE-LISE HØG LEJRE
Executive vice president
Production and Innovation
BODIL LORENTZEN
Executive vice president
AgroTech

Excerpt: Consolidated financial statement

FINANCIAL HIGHLIGHTS FOR THE GROUP

EURm	2021	2020	2019	2018	2017
Financial ratios					
Net turnover	145.0	146.6	152.4	150.5	151.1
Operating profit or loss	5.9	3.0	6.4	5.7	5.2
Financial items	-0.6	-0.3	-0.2	-0.2	0.0
Tax on profit or loss from ordinary activities	-0.2	0.0	0.0	0.1	0.5
Net profit or loss for the year	5.1	2.7	6.2	5.6	5.7
Balance sheet total	148.6	155.1	159.1	150.0	143.3
Equity attributed to parent company	109.7	105.1	101.2	95.4	90.3
Cash flow	-4.3	-4.2	-1.3	1.2	8.9
Of which investment in property, plant and equipment	4.9	8.4	5.0	7.8	5.3
Financial ratios					
Profit margin	4.1	2.1	4.1	3.8	3.5
Solvency ratio	73.8	67.8	63.6	63.6	63.0
Liquidity ratio	141.5	118.4	109.6	121.8	119.0
Development financied by operators	9.8	8.3	7.7	7.7	8.0
Average number of full-time employees	944	980	1,000	1,009	1,041

BALANCE SHEET

		Group		The Institute	
EURm	**Note**	**2021**	**2020**	**2021**	**2020**
ASSETS					
Fixed assets					
Intangible fixed assets	**8**				
Goodwill		0.0	0.0	0.0	0.0
Completed development projects		0.0	0.0	0.0	0.0
Patents		0.0	0.0	0.0	0.0
Intangible fixed assets in total		**0.0**	**0.0**	**0.0**	**0.0**
Property, plant and equipment	9				
Land and buildings		53.2	54.2	53.2	54.2
Production plant and machinery		0.2	0.4	0.0	0.0
Other plant, operating equipment, fixtures and fittings		10.8	11.9	10.8	11.9
Fitting out leased premises		0.0	0.0	0.0	0.0
Plant under construction		0.1	0.0	0.0	0.0
Property, plant and equipment in total		**64.3**	**66.5**	**64.0**	**66.1**

BALANCE SHEET - CONTINUED

		Group		The Institute	
EURm	**Note**	**2021**	**2020**	**2021**	**2020**
Financial fixed assets					
Investments in subsidiaries	10	0.0	0.0	5.6	5.3
Other securities, loans and investments	11	31.1	31.8	31.0	31.8
Financial fixed assets in total		**31.1**	**31.8**	**36.6**	**37.1**
Total fixed assets		**95.4**	**98.3**	**100.6**	**103.2**
Currents assets					
Inventories					
Inventories	12	5.4	5.6	0.4	0.4
Inventories in total		**5.4**	**5.6**	**0.4**	**0.4**
Receivables					
Receivables from sale of goods and services		22.1	21.6	18.1	18.1
Contract work in progress	13	15.2	14.1	14.6	13.4
Receivables from subsidiaries		0.0	0.0	2.5	2.6
Deferred tax assets	14	0.5	0.6	0.0	0.0
Other receivables		0.4	1.1	0.2	0.2
Accruals	15	0.7	0.6	0.7	0.6
Receivables in total		**38.9**	**38.0**	**36.1**	**34.9**
Cash	16	8.9	13.2	6.5	10.5
Total current assets		**53.2**	**56.8**	**43.0**	**45.8**
TOTAL ASSETS		**148.6**	**155.1**	**143.6**	**149.0**

BALANCE SHEET - CONTINUED

		Group		The Institute	
EURm	**Note**	**2021**	**2020**	**2021**	**2020**
LIABILITIES					
Equity					
Retained earnings		109.6	105.1	109.6	105.1
Equity attributed to parent company		**109.6**	**105.1**	**109.6**	**105.1**
Minority interests		0.1	0.1	0.0	0.0
Total equity		**109.7**	**105.2**	**109.6**	**105.1**
Deferred liabilities					
Guarantees	18	0.4	0.3	0.0	0.0
Other provisions	19	0.9	1.6	0.6	1.5
Total provisions		**1.3**	**1.9**	**0.6**	**1.5**
Payables					
Short-term payables					
Contract work in progress	13	14.1	13.7	11.6	11.8
Suppliers of goods and services		2.0	5.8	1.1	4.3
Debts to credit institute		13.4	4.0	13.4	4.0
Corporation tax due		0.0	0.1	0.0	0.0
Other debt	20	7.9	24.0	7.1	22.1
Accruals	15	0.2	0.4	0.2	0.2
Short-term payables in total		**37.6**	**48.0**	**33.4**	**42.4**
Total payables		**37.6**	**48.0**	**33.4**	**42.4**
TOTAL LIABILITIES		**148.6**	**155.1**	**143.6**	**149.0**

Company details

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Website: www.dti.dk
E-mail: info@teknologisk.dk

Reg no.: 56 97 61 16
Founded: 1906
Registered office: Taastrup
Financial year: 1 January - 31 December 2021

BOARD OF TRUSTEES
Jens Maaløe, Chairman
Mikael Bay Hansen, Deputy Chairman
Anders Bjarklev
Claus von Elling
Connie Hedegaard
Niels Techen
Per Laursen
Frederik R. Steenstrup
Lotte Bjerrum Friis-Holm

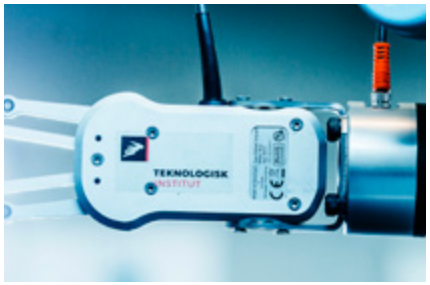
EXECUTIVE BOARD
Juan Farré, President

AUDITORS
PricewaterhouseCoopers
Statsautoriseret Revisionspartnerselskab
Strandvejen 44
DK-2900 Hellerup

Group chart

DANISH TECHNOLOGICAL INSTITUTE

REG NO.: 56 97 61 16



SUBSIDIARIES

DANISH

DANCERT A/S

100% REG NO.: 29 51 20 94

DANFYSIK A/S

100% REG NO.: 31 93 48 26

FOREIGN

DTI SPAIN S.L., Spanien

67% REG NO.: B-65573784

NOTES

TEKNOLOGISK INNOVATION A/S

100% REG NO.: 20 66 65 45

Company with limited activities

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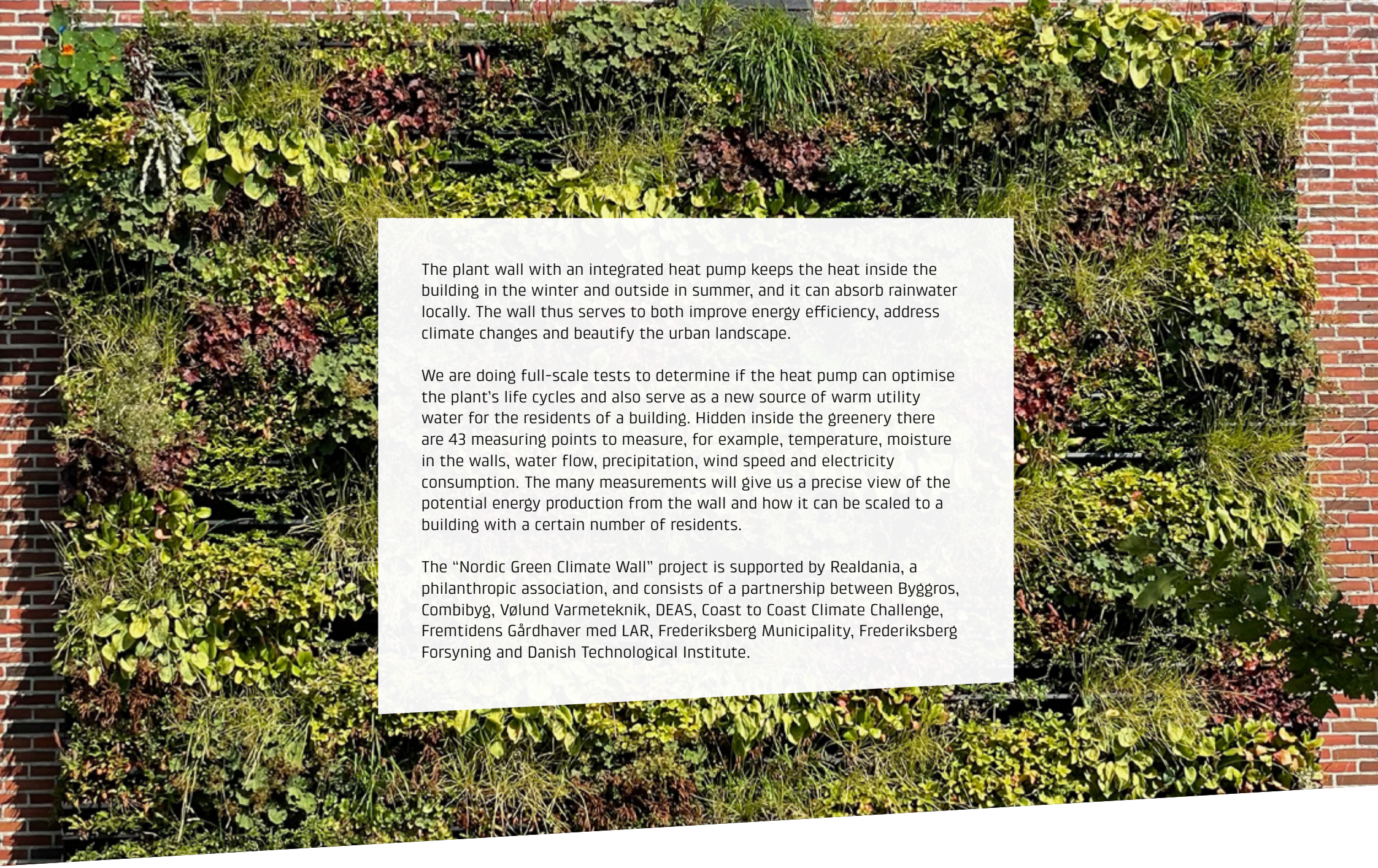

The plant wall with an integrated heat pump keeps the heat inside the building in the winter and outside in summer, and it can absorb rainwater locally. The wall thus serves to both improve energy efficiency, address climate changes and beautify the urban landscape.

We are doing full-scale tests to determine if the heat pump can optimise the plant's life cycles and also serve as a new source of warm utility water for the residents of a building. Hidden inside the greenery there are 43 measuring points to measure, for example, temperature, moisture in the walls, water flow, precipitation, wind speed and electricity consumption. The many measurements will give us a precise view of the potential energy production from the wall and how it can be scaled to a building with a certain number of residents.

The "Nordic Green Climate Wall" project is supported by Realdania, a philanthropic association, and consists of a partnership between Byggros, Combibyg, Vølund Varmeteknik, DEAS, Coast to Coast Climate Challenge, Fremtidens Gårdhaver med LAR, Frederiksberg Municipality, Frederiksberg Forsyning and Danish Technological Institute.