



ODENSE  
robotics

INSIGHT REPORT 2022

# Deploying robotics in new industries

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Content by Odense Robotics.  
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## FOREWORD

# Reaching new heights

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“How big is Denmark’s robotics, automation and drone industry? What’s its future growth potential? And how green is the industry?”

These are questions frequently asked by business analysts, investors, political decision makers and indeed the industry itself. You’ll find some of the answers here in Odense Robotics’ Insight Report 2022 – the first analysis of Denmark’s robotics, automation and drone industry from the national cluster. The report gives you a picture of the industry’s size, financial performance and outlook for the future. It also highlights challenges facing the industry and its contribution to a greener world.

Denmark is a global world leader within robotics. And the industry is expanding in all ways – to new markets globally, to new application areas, to new financial heights. Yes, there are challenges, particularly for smaller companies. But as this report shows, the industry is growing strongly and the outlook is positive. Global megatrends such as labour shortages in manufacturing are driving demand for automated solutions. When I talk to CEOs across the country, there is strong optimism.

With a vision of building a bigger, better robot nation, the national cluster supports companies in strengthening their foundation for growth and accelerating innovation. The cluster now has more than 270 members. With our first year now past, we look forward to helping even more companies in 2022. By connecting the entire ecosystem, we can go further in realising the industry’s potential.

I hope you enjoy reading Insight Report 2022.

**Mikkel Christoffersen**  
CEO, Odense Robotics



# Denmark's robotics industry is growing – and driving green transition

Denmark's robotics, automation and drone industry has grown significantly in recent years and is now home to global market leaders, high-growth startups and world-leading research. The industry develops technology to solve industrial and societal challenges – and is becoming a key driving force in green transition.

In only a few years, Denmark has established one of the leading robotics, automation and drone industries in the world. There are now more than 400 companies across the country. Development and production for the global market have created 10,700 jobs in Denmark and 3,800 abroad. In 2025, the total number of employees in Denmark and abroad is expected to reach 23,800.

The industry has a global stronghold within collaborative robots, mobile robots, industrial automation and professional service robots. Robotic, automation and drone technologies provide solutions for many industries, from manufacturing, logistics and transport to healthcare, defence and energy.

## **Megatrends fuel demand**

With a turnover of EUR 2.8 billion (DKK 21.1 billion) and exports of EUR 1.5 billion (DKK 11 billion), the industry generated strong growth last year and attributed to the deployment of robotics in new settings.

Most companies reported a strong growth of 5-15%, which is in line with CAGR rates for the global robotics market. Some larger companies, particularly those specialising within collaborative and mobile robots, experienced growth of more than 40% in 2021 – in line with or exceeding global market predictions for these robot categories. Global megatrends such as labour shortages at end users and green transition are fuelling demand for automation.

## **Market challenges continue**

Meanwhile, many companies were challenged in 2021. Supply chain issues, component shortages and recruitment difficulties presented challenges, particularly for scaleups.

The largest growth barrier cited by companies is a lack of understanding about the value of automation. While awareness about how automation can deliver efficiencies, enhance scalability and improve work environments has increased considerably, particularly under the pandemic, even more investments are needed if the industry is to realise its growth potential and end users are to reap the full benefits.

## **Outlook for steady growth**

The industry has an overwhelmingly positive outlook on 2022, with 83% expecting an increase in turnover. While it's difficult to make projections in this rapidly changing industry, companies' expectations can give an indication of future development. In 2025, the industry is expected to generate EUR 5 billion (DKK 37.2 billion) in turnover, of which EUR 1.9 billion (DKK 14.3) are exports.

## **Driver for green transition**

This is the first time figures are available for the robotics, automation and drone industry's contribution to green transition. Results show that the industry is becoming a key driving force in green transition and circular economy, and an important part of a green value chain.

More than 80% of companies work strategically with green transition and circular economy. Almost the same proportion provide solutions that contribute to their customers' green transition and circular economy. What is more, the industry plays a strong role in the green economy, serving customers in key segments such as the wind industry, energy efficiency and green agriculture.

# Key findings

## Industry

- 418** companies in Denmark
- 696** workplaces in Denmark
- 35%** operate within manufacturing, logistics and transport
- 84%** work with green transition and circular economy

## People



- 10,700** employees in Denmark in 2021
- 3,800** employees abroad in 2021
- 18,800** employees in Denmark in 2025
- 5,000** employees abroad in 2025

## Performance

- EUR 2.8** billion turnover in 2021
- EUR 1.5** billion exports in 2021
- EUR 5** billion turnover in 2025
- EUR 904+** million invested in companies since 2015

## THE INDUSTRY

# Growing industry across the country

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Denmark's robotics, automation and drone industry is home to 418 companies. Many companies have several offices, bringing the total number of workplaces in Denmark close to 700.

Companies and workplaces are located across the country. The largest concentration is in Odense and on Funen, where 32% of companies are located. Other regions with high concentration of companies are Central Jutland and Southern Jutland, which are each home to around 15% of the country's total.

Some are entirely dedicated to robotics, automation and drone technologies, while other companies have other focus areas.

**418**  
companies

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**696**  
workplaces  
in Denmark

# Denmark's regional strongholds

Across Denmark, companies, universities, research institutions and organisations are working together, bringing their specialisms to the fore.



## Central Jutland

61 headquarters/138 workplaces

Aarhus and Central Denmark are home to a high concentration of companies delivering robotic and drone solutions, particularly within outdoor mobile robots.

Aarhus University's robotics research spans mechatronics, artificial intelligence, system dynamics, drones and more. Test facilities for outdoor robots are under development in the region.

Odense Robotics has a regional hub in Aarhus, established in collaboration with the City of Aarhus.

## Southern Jutland

62 headquarters/134 workplaces

The Sonderborg area and Southern Jutland are home to a high concentration of leading companies within industrial automation and mechatronics.

Robotics research at the University of Southern Denmark in Sonderborg focuses on mechatronics, industrial electronics, mechanics and more. The Design School Kolding has expertise in industrial and UX design.

Odense Robotics has a regional hub in Sonderborg, established in partnership with Bitten & Mads Clausen's Foundation.

## Funen

135 headquarters/177 workplaces

The Odense area and Funen is a global stronghold for robotics, in particular collaborative and mobile robots.

The University of Southern Denmark conducts a wide range of robotics research such as collaborative robots, bioinspired robotics, applied AI, drones and Industry 4.0. The Danish Technological Institute develops advanced robot technology. UAS Denmark Test Center is an unmanned systems technology test and development centre.

Odense Robotics' headquarters is in Odense, where the cluster collaborates closely with Business Region Fyn and the nine municipalities on Funen.

## Northern Jutland

50 headquarters/85 workplaces

Companies in Aalborg and Northern Jutland develop hardware and software for robotic solutions, standard- and large-sized drones, counter drone systems, outdoor mobile robots, as well as a wide range of automation solutions.

Aalborg University conducts research on drones, mobile robots, exoskeletons, Industry 4.0, 5G-enabled distributed robots and more.

Odense Robotics has a regional hub in Aalborg, established in collaboration with Aalborg University.

## Greater Copenhagen

82 headquarters/120 workplaces

## Zealand

28 headquarters/42 workplaces

Companies in the Greater Copenhagen area and Zealand span a broad range of specialisms, including robotic software, drone technology and automation for manufacturing, healthcare and agriculture.

Robotics research is conducted at FORCE Technology and the Technical University of Denmark, which has the Centre for Collaborative Autonomous Systems, as well as many other specialisms.

Odense Robotics has a regional hub in the Greater Copenhagen area, established in collaboration with DTU Science Park.

## THE INDUSTRY

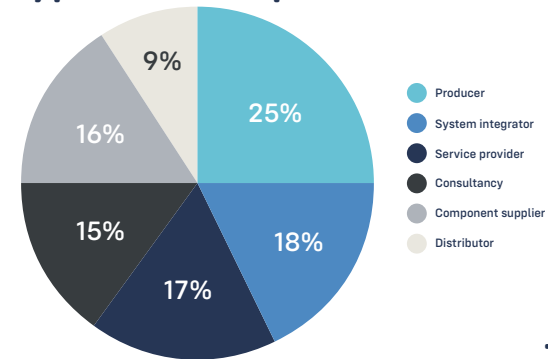
# Driven by innovation and integration

Odense Robotics, Denmark's national cluster for robotics and drones, currently has more than 270 members. The cluster's company members provide a good indication of the country's industry.

A look at members shows that the largest category is producers that develop and produce technologies. The second largest group is system integrators that integrate technologies for end users.

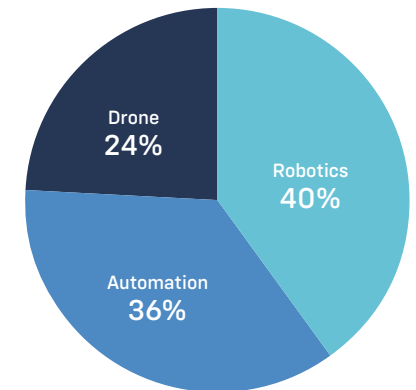
A look at the technology focus of Odense Robotics member companies shows that there is an equal balance between robotics and automation, bearing in mind that many companies are active within both. 24% of member companies are focused on drone technologies.

## Types of companies



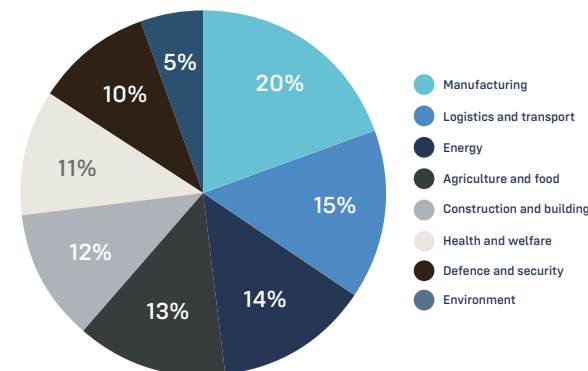
Source: Odense Robotics

## Technology areas



Source: Odense Robotics

## End-user focus areas



Source: Odense Robotics



## THE INDUSTRY

# Robots provide solutions for many sectors

Whereas traditionally, robotics and automation solutions were largely confined to the industrial manufacturing sector, we now see their application in a wide range of sectors – such as healthcare, logistics, energy, surveillance and construction.

Robotics, automation solutions and drone technologies are increasingly being applied in a range of sectors to solve challenges faced by businesses and societies. Global megatrends such as growing workforce shortages and an increasing focus on green transition means that many sectors are now turning to new technologies and robots in order to meet challenges.

Automated solutions, collaborative robots, mobile robots, service robots and drone solutions enable a wide range of sectors to find solutions to complex challenges. Technologies enable companies to increase quality and productivity, create safer work environments and operate in a more environmentally friendly way.



### Manufacturing

Collaborative robots from Universal Robots provide a cost-effective, flexible and safe automation solution for a wide range of production tasks.



### Logistics and transport

AMRs from Mobile Industrial Robots can improve logistics, increase production flow and reduce manual workload.



### Energy

Batteries for electric cars are handled using fully automated production facilities developed by Jorgensen Engineering.



### Environment

Intelligent autonomous drones developed by Robotto limit the environmental impact of forest fires by reducing burn sizes and CO2 emissions.



### Defence and security

Intelligent drone solutions developed by Lorenz Technology perform smart inspections and enable effective facility management.



### Health and welfare

Pipetting robots developed by Flow Robotics enable lab technicians to increase accuracy and reduce work-related injuries.



### Construction and building

Automated robot 3D printers developed by COBOD International provide construction companies with macro-scale solutions for the construction of fully 3D printed buildings.



### Agriculture and food

Fully automatic robots developed by FarmDroid and powered by solar energy enable farmers to reduce costs of sowing and weeding crops in a CO2 neutral way.

PEOPLE

# Workforce expands and tops 10,000 employees

Denmark's robotics, automation and drone industry employs 10,700 people in Denmark and 3,800 abroad. This brings the total industry workforce to 14,500 people.

The industry expanded its workforce in Denmark and abroad by 14% in 2021 compared to the previous year. And this steady growth is set to continue.

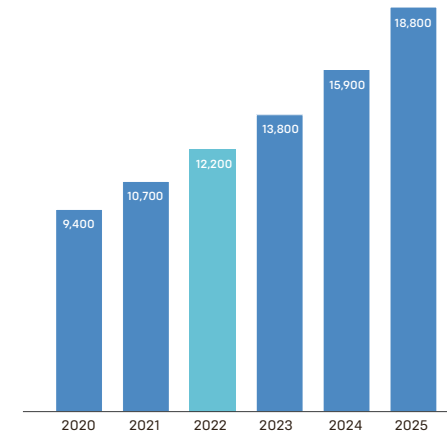
Denmark's robotics, automation and drone industry is expected to employ 18,800 people in Denmark and 5,000 abroad in 2025, totalling 23,800. This means 8,100 new jobs in Denmark and 1,200 new jobs abroad between 2021 and 2025.

**10,700**  
employees in Denmark



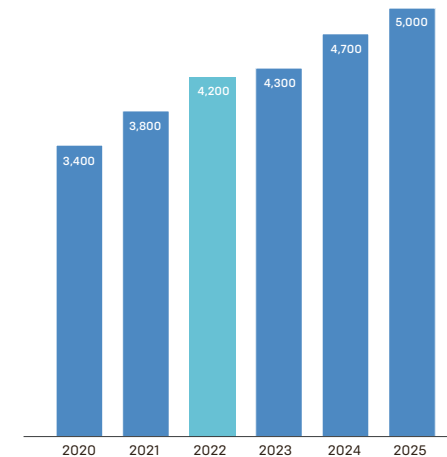
**3,800**  
employees abroad

## Number of employees in Denmark



Source: Statistics Denmark and Odense Robotics

## Number of employees abroad



Source: Statistics Denmark and Odense Robotics

PEOPLE

# Recruitment challenges lead to losses

Danish robot, automation and drone companies are actively recruiting. Unfortunately, it's often in vain. The industry could employ 600 people right now if companies could find the right candidates.

A buoyant job market and increasing demand for automated solutions means there is a high demand for qualified employees for Denmark's robots, automation and drone industry. Yet many companies' recruitment efforts are unsuccessful.

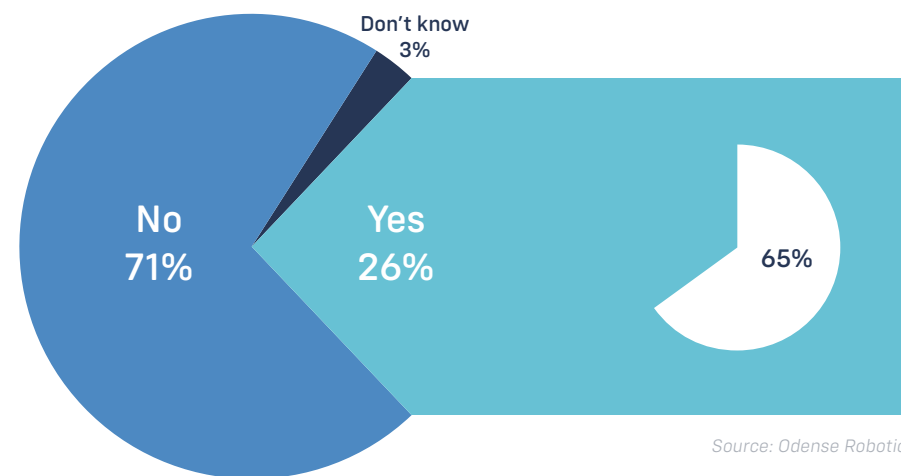
One in four companies had to give up recruitment efforts over the past 12 months because they were unable to find qualified candidates for open positions. This means that Danish robot, automation and drone companies could have employed 600 more people if they hadn't had recruitment problems.

Recruitment challenges are directly impacting on company performance. Of the companies that were unable to recruit candidates, 65% say that recruitment challenges are so big that they result in production or turnover losses.

## Recruitment challenges

Companies that had to give up recruiting for an open position within the past 12 months due to a lack of qualified applicants.

Recruitment challenges are so big that they result in losses in production or turnover.



**600** employees lacking today

**26%** unable to hire candidates

Source: Odense Robotics

## PERFORMANCE

# Strong growth increases deployment of robots

With a turnover of EUR 2.8 billion and exports of EUR 1.5 billion, Denmark's robotics, automation and drone industry generated a strong growth last year and attributed to the deployment of robotics in new settings.

The industry delivered strong growth in 2021. Most companies reported growth of 5-15%, which is in line with CAGR rates for the global robotics market. Some larger companies, particularly those specialising within collaborative and mobile robots, experienced growth of more than 40% in 2021 – in line with or exceeding global market predictions for these robot categories.

Companies experiencing strong growth say that megatrends such as labour shortages are fuelling demand for automated solutions and extending deployment to new sectors. As well as reaching new sectors, companies experienced repeated business from customers extending their use of technologies after seeing the impact.

While the industry delivered strong growth overall, there were also challenges in the market. This meant that some companies ended the year with a result that was below expectations.

EUR  
**2.8** billion in  
turnover

EUR  
**1.5** billion in  
exports  
in 2021



*"These new robots have clearly expanded our market because we can operate in more environments and transport heavier items. Another new solution introduced last year, the MiR250 Hook, has also been highly popular within the logistics sector, which has been waiting for a way to streamline the towing of multiple types of transport carts. It's been exciting to see companies benefit as they've deployed these new solutions."*

Søren E. Nielsen, President, MiR

## MiR sales up 42%

Mobile Industrial Robots (MiR), the global market leader in autonomous mobile robots (AMRs), experienced a 42% increase in sales in 2021 compared to 2020.

December alone was a record month for the company, with close to 300 robots shipped, which is more than any previous month.

While the automobile and electronic industries continue to invest in the company's AMRs, MiR now also sees strong sales from companies within the logistics and consumer packaged goods sectors wanting to optimise and automate their internal transport. MiR's new and more powerful robots—the MiR600 and MiR1350, both introduced in 2021—have been top sellers in the new sectors.

As part of the growing global autonomous transport trend, more companies are focusing on how AMRs can be integrated with their other automation solutions.

## PERFORMANCE

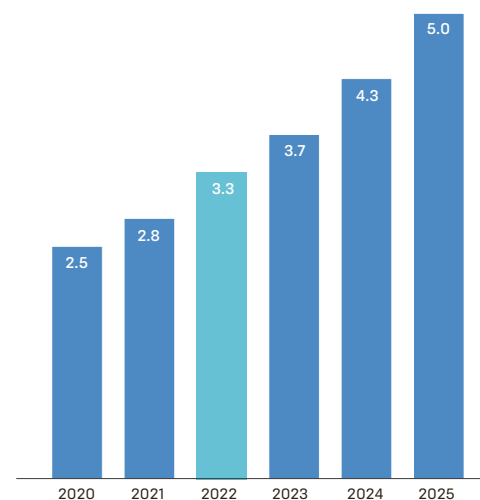
# Outlook for strong growth

With demand for automated solutions set to grow, Denmark's robotics, automation and drone industry has an overwhelmingly positive outlook on 2022. More than 80% expect to increase turnover this year and almost half expect to do so by more than 20%.

This indicates that Denmark's robotics industry is more optimistic about future growth than the International Federation of Robotics, which expects the "boom after crisis" to fade slightly in 2022 and foresees average annual growth rates in the medium single-digit range from 2021 to 2024.

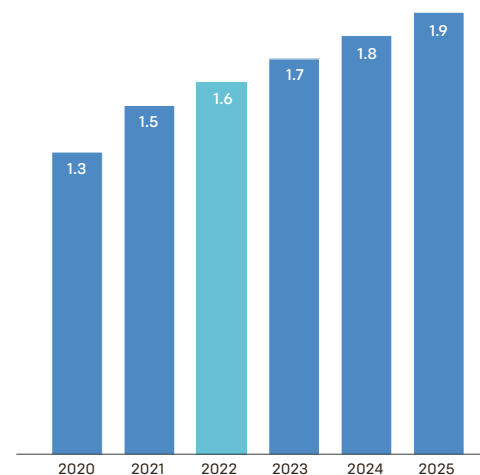
While it's difficult to make projections in this rapidly changing industry, companies' expectations can give an indication of growth potential. In 2025, the industry is expected to generate EUR 5 billion (DKK 37.2 billion) in turnover of which EUR 1.9 billion (DKK 14.3) are exports.

## Turnover, billions EUR



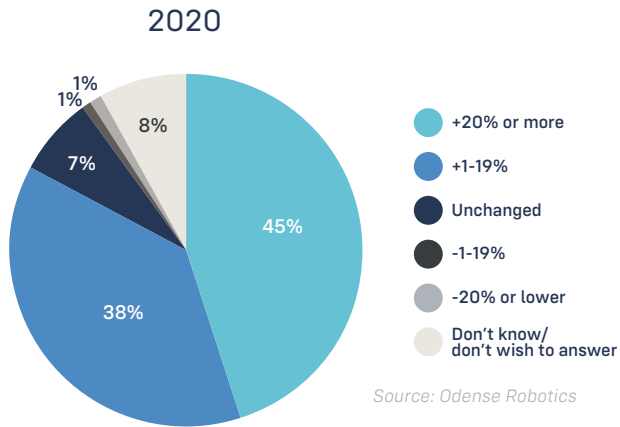
Source: Statistics Denmark and Odense Robotics

## Exports, billions EUR

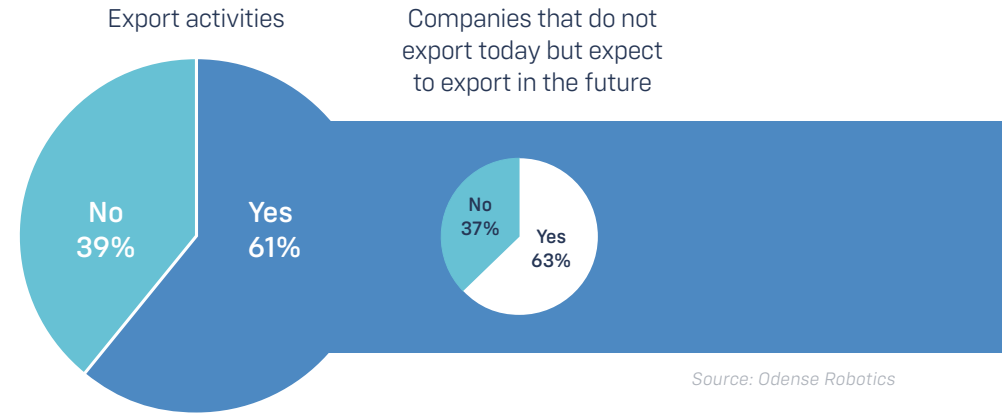


Source: Statistics Denmark and Odense Robotics

## Expected increase in turnover



## Exports now and in the future



**EUR 5 billion** turnover

**1.9 billion exports** in 2025

PERFORMANCE

# Growth barriers for companies

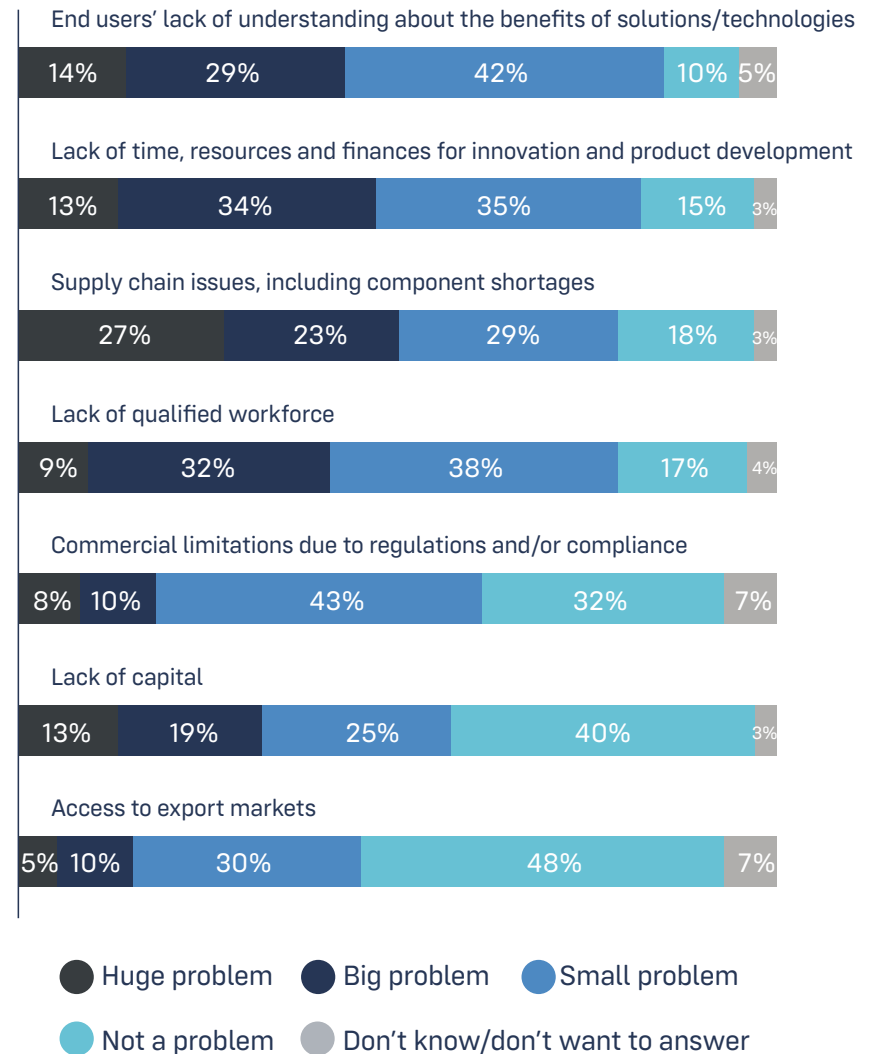
Despite the growing widespread recognition of the benefits of robotics, automation and drone solutions, companies still say that the largest growth barrier is a lack of understanding about the benefits of automisation.

The largest growth barrier for Denmark's robotics, automation and drone companies is a lack of awareness about the value of automated solutions (85%). This highlights the need to continue to invest in increasing end users' awareness of how robotic technologies can deliver efficiencies, add value and improve working environments.

Companies say the second largest growth barrier is a lack of time, resources and funding for innovation and product development (82%). This indicates that companies are failing to realise their innovation potential and missing out on opportunities to strengthen product development.

A lack of qualified employees and supply chain issues, including component shortages, represent the third largest growth barriers for the industry (79%). It's perhaps surprising that access to export markets is not a larger barrier. This indicates that companies have succeeded in finding new approaches to digital marketing, sales and service during the pandemic.

## Growth barriers



Source: Odense Robotics



*“It’s important that even more sectors realise just how big a contribution robotic technologies, drones and flexible automation can make. They can be a big part of the solution to global challenges such as labour shortages. They can improve work conditions. Drive efficiencies. Even strengthen your brand.”*

*“But we need even more sectors to realise this before we can see the full benefits. It’s about increasing understanding about the advantages of new technologies and making them more and more easy to deploy.”*

Casper Hansen, CEO of Technicon  
and Vice Chairman of Odense Robotics



## PERFORMANCE

# Investment landscape

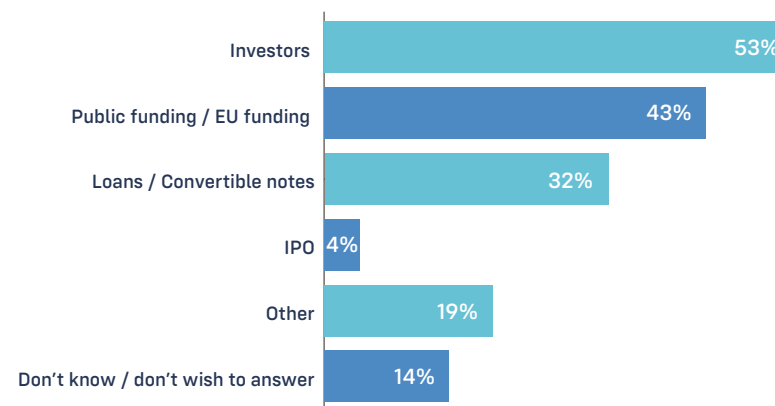
Uncertainty in the market fuelled by the pandemic took its toll on the number and size of investment rounds in 2021. This year, however, has gotten off to a promising start. Investments in Danish robotics, automation and drone companies since 2015 now total over EUR 904 million.

A total of EUR 23.2 million was invested in Danish robotics, automation and drone companies last year. This is a considerable drop on 2020, when investments totalled EUR 72 million, however fluctuations within the investment market are to be expected, especially during a global pandemic. Still, companies such as OnRobot were successful in raising capital in both 2020 and 2021. This brings the accumulated figure for investments since 2015 to over EUR 904 million.

The reinvestment phenomenon continues. Investment in Coalescent Mobile Robotics was just one of the activities undertaken by prominent Danish investors such as Niels Jul Jacobsen and Enrico Krog Iversen. Companies were exploring new ways of raising capital, with KOBOTS leading the way with the equity crowdfunding campaign.

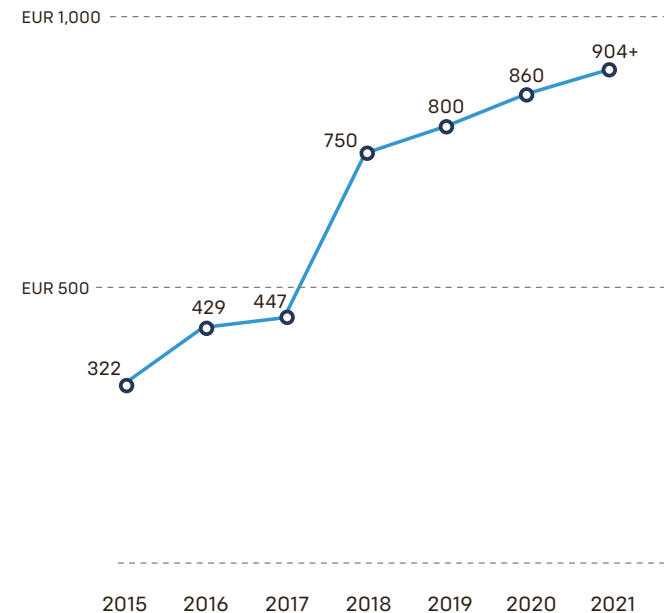
2022 has gotten off to a promising start, with an excess of EUR 47 million already invested in Danish robotics companies including significant investments in Blue Ocean Robotics and Enabled Robotics. Direct investments are the primary source of capital for companies followed by public or EU support programmes.

## Sources of capital



Source: Odense Robotics

## Total investments in companies, EUR million



Source: Odense SEED & VENTURE, Dealroom.co.

Note: Investments in Danish companies outside of Funen only included from 2020.

## COLLABORATION

# Collaboration drives innovation and growth

Denmark's robotics, automation and drone industry is part of a strong ecosystem designed to help companies throughout their growth journey.

Figures show that companies are actively leveraging the many opportunities in the ecosystem. As many as 84% of companies collaborate with other robotics, automation or drone companies in Denmark and/or abroad. As many as 88% collaborate with the ecosystem's many organisations.

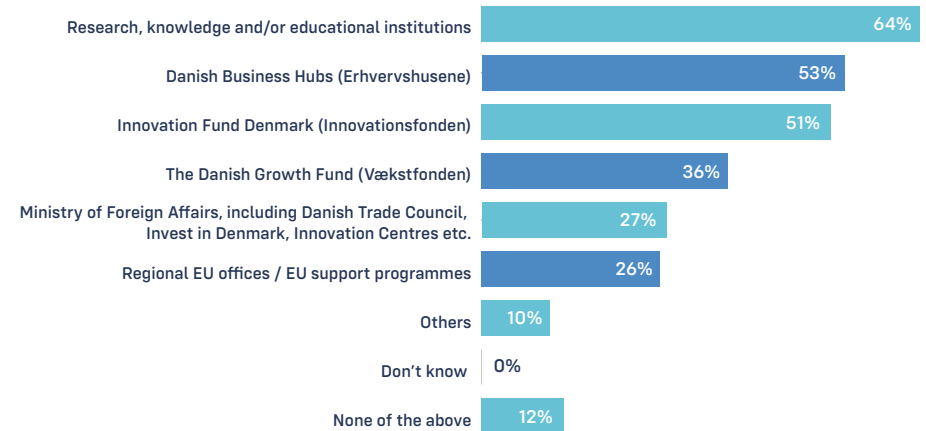
*"The ecosystem offers companies a lot of support. A strong network of organisations provides companies with access to funding, collaboration partners, top research and industry know-how.*

*"Playing an active part in the ecosystem and the national cluster can strengthen companies' competitive advantage. Denmark has so many opportunities ahead as a robot nation, but we are competing against many big players globally. I believe we stand stronger if we collaborate."*

Henrik Anker, CEO of Gibotech and Chairman of Odense Robotics

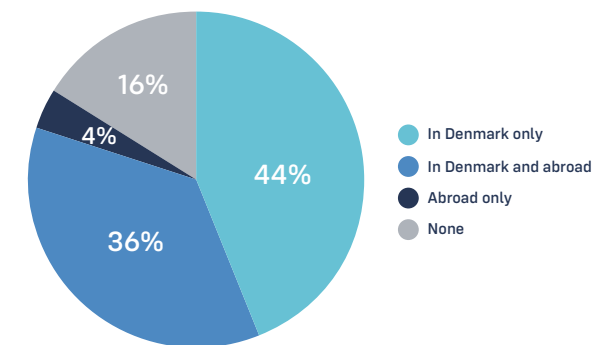


## Other collaboration partners



Source: Odense Robotics

## Collaboration with other robotic companies



Source: Odense Robotics

# Key driver for green transition

Denmark's robotics industry is a key driving force in green transition and circular economy, and an important part of the green value chain.

More than 80% of Denmark's robot, automation and drone companies work strategically with green transition and circular economy. This is primarily driven by a desire to exercise responsibility for the environment, climate and society (67%), followed by a desire to increase competitiveness (52%) and thirdly strengthen the development of products and solutions (44%).

It's interesting to see that increased demand from customers is driving activity for 30% of companies. This is a new development and marks a rapid change from recent years, when companies generally said that their customers had limited focus on green transition when procuring automation solutions.

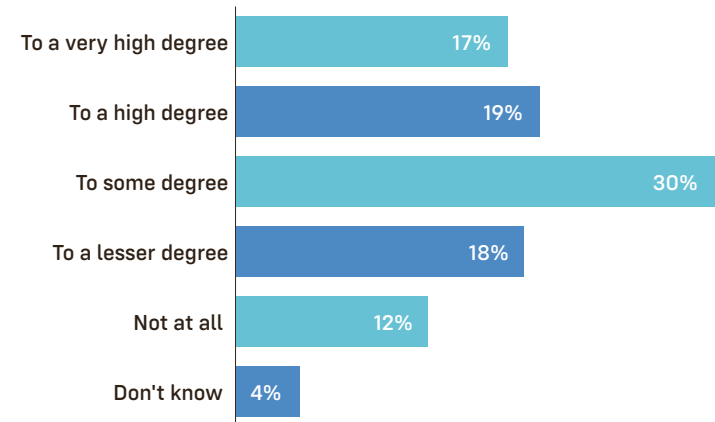
## Solutions drive green transition

The overwhelming majority of companies – 78% – provide solutions that contribute to their customers' green transition and/or circular economy. The three biggest contributing factors are enabling customers to reduce the use of resources and materials (56%), be more energy efficient (43%) and increase their product lifecycle (32%).

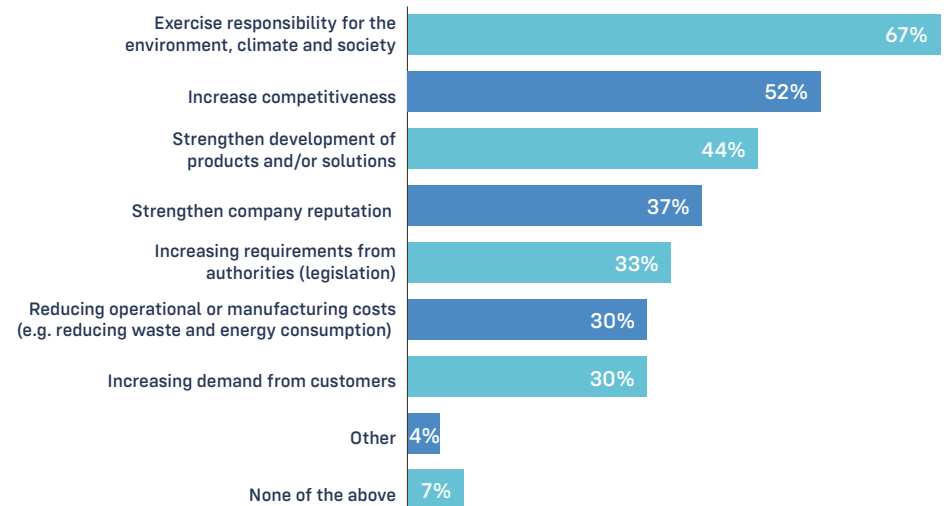
## Important supplier to green industry

Denmark's robotics, automation and drone companies are important suppliers of technologies to companies in the green industry. Almost 70% of companies have customers that produce green solutions. More than 30% of companies have customers in the wind industry, 27% have customers within energy efficiency and the same amount within green agriculture and food production.

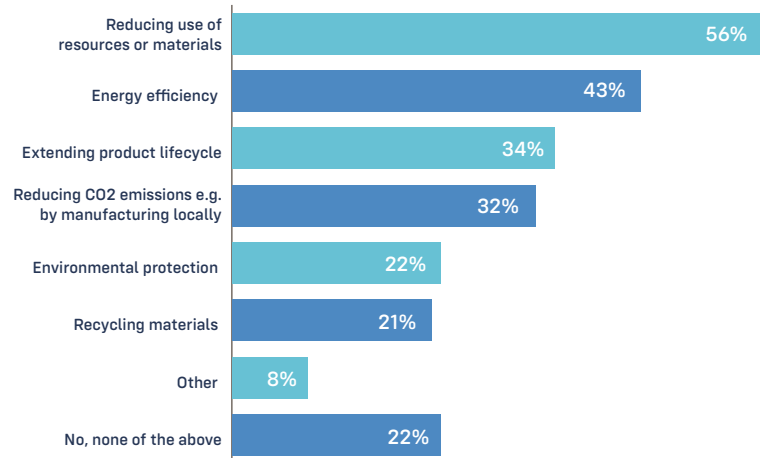
## Companies working strategically with green transition and/or circular economy



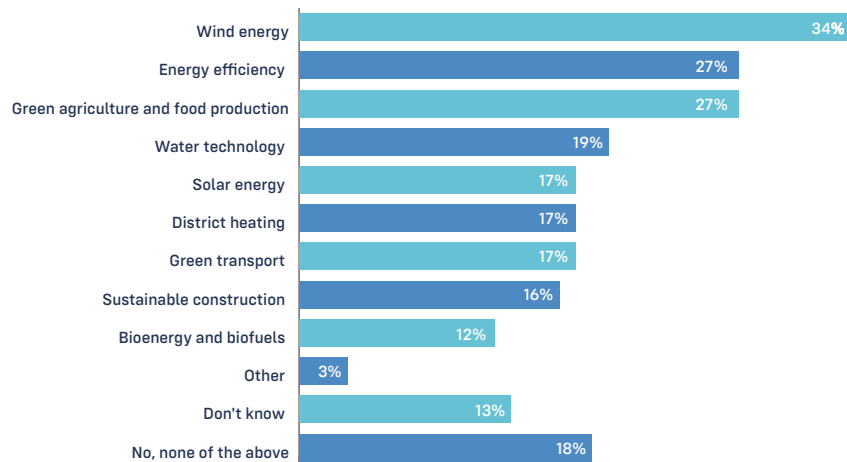
## Reasons why companies work with green transition and/or circular economy



## Companies providing products/solutions that contribute to the customer's green transition and circular economy by...



## Companies with customers delivering green solutions within...



Inrotech is delivering welding robots to Bladt Industries at its new production facilities at Odense Port this year. The welding robots are expected to increase quality and efficiency in the production of XXL monopiles for two of Ørsted's offshore wind farms in Germany.



Odico's robotic solutions enable buildings to be constructed using up to 65% less concrete. This reduction can have a significant impact on the environment. Concrete construction accounts for 8% of global CO2 emissions today – four times higher than emissions from the world's total air traffic.

## STARTUPS

# High success rate at StartUp Hub



Robotics and drone entrepreneurs grow their businesses at Odense Robotics StartUp Hub, which has a more than 80% success rate.

Odense Robotics StartUp Hub is recognised as one of Europe's leading robotics incubators. It is located at the 3,000m<sup>2</sup> specialist facility at the Danish Technological Institute. Here, robotics and drone startups are joined by a team of business and technology experts that help turn technology into good business.

Many successful robotics and drone startups emerge from Odense Robotics StartUp Hub and continue to grow their businesses in domestic and international markets. In fact, the Hub has a success rate of more than 80%, which means that more than eight out of 10 companies continue to develop their business and/or technology on leaving the Hub.

A total of 34 companies have been part of the Odense Robotics StartUp Hub since its inception in 2015. Today, these companies employ more than 170 full-time people. Since 2015, the startups have secured around EUR 30 million in external investments and EUR 7.5 million in equity-free soft funding.

**34**

startups

**170+**

employees

**EUR 30**

million external  
investments

THE EUROPEAN UNION

The European Regional  
Development Fund



Investing in your future

# Robots in retail

When Coalescent Mobile Robotics exited Odense Robotics StartUp Hub in late 2021, the startup left with a DKK 11 million investment round in the process of closing, exciting new investors and partners joining the team and a fully designed mobile robot already being tested out in the field. During the time in the Hub, the startup grew from two to 11 employees.

Coalescent Mobile Robotics develops agile, fast and smooth mobile robot solutions that enable the retail industry to automate internal transportation and boost in-store logistics. The mobile robot can be deployed in supermarkets, for example, to support click-and-collect services and transport goods during restocking. The robot can also help the retail industry address labour shortages and improve work standards.



*"Thanks to the mobile robotics expertise we had access to in the StartUp Hub, we were able to accelerate our product development – especially regarding safety measures. Another truly great part of being in the Hub was its tight-knit community."*

*"Being able to work alongside other startups and bounce ideas back and forth – on top of the easy access to robotics expertise – was the ideal environment in which we could develop our robot."*

Clionadh Martin, CEO and Founder of Coalescent Mobile Robotics



ODENSE ROBOTICS

# Denmark's national cluster for robotics, automation and drone technology

We connect the robotics ecosystem by collaborating with partners across Denmark and internationally throughout the value chain.



Danish Ministry of Higher Education and Science





# What our members say

More than 270 companies and organisations have become a member of Odense Robotics. Are you curious about how you can benefit from being part of the cluster? Check what some of our members say about why projects, networks and events bring value to their business.

"It's great to be able to discuss business-critical topics with like-minded professionals from other robotic, automation or drone companies through Global Growth Robotics. Even though companies are in different situations with different ideas and products, there are still many things in common. It's really valuable to get sparring from other companies in the sector and valuable insights from industry experts."



Bjørn Davidsen,  
CEO and Owner, GCM

Check out our projects at  
[www.odenseroobotics.dk/projects](http://www.odenseroobotics.dk/projects)

"I'm passionate about applying robotics technologies to make a difference to businesses, people and societies. For me, this means continually exploring new partnerships and leveraging new insights. Being part of Odense Robotics' national CEO Network enables me to build relations with some of the best minds in Denmark's robotics industry. It's a unique forum, which always leaves me inspired."



Niels Jul Jacobsen,  
CEO, Capra Robotics

Check out our networks at  
[www.odenseroobotics.dk/networks](http://www.odenseroobotics.dk/networks)

"A great and eventful day at the International Drone Show 2021 at HCA airport, where more than 200 people participated. The programme was packed with exciting presentations, demo flights and lots of networking with people from the industry. We presented our fixed-wing drone and did a demo flight. The event was a valuable platform for showcasing our technology and connecting with potential partners."



Esben Nielsen,  
CEO, Nordic Wing

Check out our events at  
[www.odenseroobotics.dk/events](http://www.odenseroobotics.dk/events)

ODENSE ROBOTICS

# Want to test tech concepts?

Our collaboration projects enable companies to test early-stage concepts by collaborating with leading research scientists, other companies and end users. It's a chance to explore new application areas and create a foundation for further innovation.

These projects are all in close collaboration with our seven knowledge partners: Aalborg University, Aarhus University, Design School Kolding, the Technical University of Denmark, FORCE Technology, the University of Southern Denmark and the Danish Technological Institute.

Projects are based on our technological focus areas: autonomous systems, drones as tools, multi-robot-systems, robots and AI, and safe human-robot interaction. Projects are supported by the Danish Ministry of Higher Education and Science.

## Get started

We currently have projects that enable companies to test early-stage tech concepts together with universities across the country. Several are looking for companies to take part.

Check out our tech development projects at  
[www.odenseroobotics.dk/tech](http://www.odenseroobotics.dk/tech)

**750**  
people

and

**105**  
companies

participated in

**11**

**knowledge-based  
events**

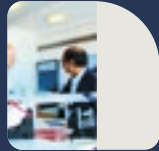
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Odense Robotics in 2021

JOIN THE CLUSTER

# How you can benefit

## Explore new technologies and products

Take part in our **tech development** projects. Accelerate your innovation by tapping into research know-how, accessing funding and getting the right partners on board.



## Become a part of Odense Robotics

More than **270** robotic, automation and drone companies and organisations have already joined the cluster.

## Participate in events

Gain **insights** and network with peers at our many events. Year round you can choose from conferences, workshops, webinars and more.

## Increase your visibility

Be seen. **Get noticed**. Showcase your company at our events. Meanwhile, we showcase success stories in our channels.

## Network

**Build relations** that strengthen your business. Meet peers and share insights in our many networking groups, so you are better equipped to grasp new opportunities.

## Find your next employee

Post your jobs and search CVs on [www.robotic-careers.com](http://www.robotic-careers.com), the leading career portal for talent looking for job opportunities in Denmark's robotics, automation and drone sector.



## Accelerate your startup

Get help to develop your solution and build your business, so you can go to market faster and more successfully. Be part of our **incubator** and startup **acceleration programmes**.



## Get ready for global growth and scale up your business

Strengthen your company's competitive edge and **scale up successfully** through our business development programmes.

## Get started

Request a meeting and find out how you can benefit from the cluster's activities. Or simply request membership at [www.odenserobotics.dk/join](http://www.odenserobotics.dk/join)

# Member directory

For the latest updates, see [www.odenserobotics.dk/member-directory](http://www.odenserobotics.dk/member-directory)

## AALBORG HUB

Airflight ApS  
[www.airflight.io](http://www.airflight.io)



Talmo ApS  
[www.talmo.dk](http://www.talmo.dk)



AUH Skejby  
[www.en.auh.dk](http://www.en.auh.dk)



GROULEFF KOMMUNIKATION ApS  
[www.grouleff.it](http://www.grouleff.it)



Conformitech  
[www.conformitech.dk](http://www.conformitech.dk)



Tasklet Factory  
[www.taskletfactory.com](http://www.taskletfactory.com)



Business Region MidtVest  
[www.brmidtvest.dk](http://www.brmidtvest.dk)



Hecto Drone ApS  
[www.hectodrone.com](http://www.hectodrone.com)



Fonden Autonomus Vesthimmerland  
[www.autonomus.dk](http://www.autonomus.dk)



Technicon  
[www.technicon.dk](http://www.technicon.dk)



Capra Robotics ApS  
[www.capra.ooo](http://www.capra.ooo)



KUKA Denmark  
[www.kuka.dk](http://www.kuka.dk)



INTELLIGENT SYSTEMS A/S  
[www.intelligentsystems.dk](http://www.intelligentsystems.dk)



The Gripper Company  
[www.thegrippercompany.com](http://www.thegrippercompany.com)



CIT Robotics  
[www.citrobotics.com](http://www.citrobotics.com)



Mercantec  
[www.videnscenterportalen.dk/arn](http://www.videnscenterportalen.dk/arn)



Kvejborg  
[www.kvejborg.dk](http://www.kvejborg.dk)



Treco  
[www.treco.dk](http://www.treco.dk)



COMPLEKS INNOVATION ApS  
[www.compleks.com](http://www.compleks.com)



Nordic Radar Solutions ApS  
[www.nordicradarsolutions.com](http://www.nordicradarsolutions.com)



Körber Supply Chain DK  
[www.koerber-supplychain.com](http://www.koerber-supplychain.com)



Turf Tank ApS  
[www.turftank.com](http://www.turftank.com)



DIS  
[www.d-i-s.dk](http://www.d-i-s.dk)



Robomania  
[www.robomania.dk](http://www.robomania.dk)



Life Science Robotics  
[www.lifescience-robotics.com](http://www.lifescience-robotics.com)



AAU  
[www.aau.dk](http://www.aau.dk)



Drone Systems ApS  
[www.dronesystems.dk](http://www.dronesystems.dk)



Ro-Buddy  
[www.uniwelco.com/da](http://www.uniwelco.com/da)



MYDEFENCE COMMUNICATION ApS  
[www.mydefence.dk](http://www.mydefence.dk)



## AARHUS HUB

PolyBot I/S  
[www.polybot.co](http://www.polybot.co)



4TECH Robotics  
[www.toolchanger.eu](http://www.toolchanger.eu)



Elontech ApS  
[www.eltronic-group.com](http://www.eltronic-group.com)



Rope Robotics ApS  
[www.roperobotics.com](http://www.roperobotics.com)



Robotto Co ApS  
[www.robotto.ai](http://www.robotto.ai)



AU  
[www.au.dk](http://www.au.dk)



GotPosition og GamesOnTrack  
[www.gotposition.com](http://www.gotposition.com)



Scout Robotics ApS  
[www.scoutrobotics.dk](http://www.scoutrobotics.dk)



# Member directory

Seginova  
www.seginova.com



## COPENHAGEN HUB

COBOD International A/S  
www.cobod.com



EasyPartz ApS  
www.easypartz.com/home/forside



Still  
www.still.dk



3DVerkstan Danmark ApS  
www.3dverkstan.dk



Cobot Lift ApS  
www.cobotlift.com



FORCE Technology  
www.forcetechnology.com



SYSTEMATIC A/S  
www.systematic.com



AgriRobot  
www.agrirobot.ai



Covi  
www.covi.dk



Graspian København  
www.graspian.com



TERMA A/S  
www.terma.com



Aim Robotics ApS  
www.aim-robotics.com



CUC ENGINEERING A/S  
www.cuc.dk



Hans Følsgaard  
www.hf.dk



TinyMobileRobots ApS  
www.tinymobilerobots.com



ANALOG DEVICES A/S  
www.analog.com



Damvig A/S  
www.damvig.dk



HETECH ApS  
www.hetech.dk



Upteko ApS  
www.upteko.com



AVS DANMARK ApS  
www.avsdanmark.dk



DTU Lyngby Innovation og Entrepreneurskab  
www.dtu.dk



High Precision systems  
www.hps.com



Ventus Wind Services A/S  
www.ventus.group



BO KROGH. ApS  
www.bok.dk



Danske Bioanalytikere  
www.dbio.dk



HIWIN GmbH  
www.hiwin.dk



XploR XR  
www.xplorxr.dk



Bosch Rexroth  
www.boschrexroth.com/da/dk



Droneberedskabet KBHV/Rigspolitiet  
www.politi.dk/kobenhavns-vestegns-politi

Holo A/S  
www.letsholo.com



Yaskawa Danmark  
www.yaskawa.dk



CESTEK A/S  
www.cestek.dk



Drone Volt Scandinavia ApS  
www.dronevolt.com



IFM ELECTRONIC A/S  
www.ifm.com/dk/da



Østjyllands Politi, Hovedstation, og Rigspolitiet  
www.politi.dk



CHAMAJ CONSULT ApS  
www.chamaj.com



DSV AIR & SEA A/S  
www.dsv.com



IHFOOD  
www.ihfood.dk



# Member directory

**INDESMATECH ApS**  
www.Indesmatech.com



**Naviar**  
www.naviar.dk



**RiACT**  
www.riact.eu



**Shape Robotics**  
www.shaperobotics.com



**IPU**  
www.ipu.dk



**Nordic Wing ApS**  
www.nordic-wing.com



**Rittal**  
www.rittal.com/dk-dk/content/da/start



**SICK A/S**  
www.sick.com/dk/da



**JOKAB SAFETY DK A/S**  
www.jokabsafety.dk



**North European Modularization Network**  
www.modularization.net



**Rohde & Schwarz Danmark A/S**  
www.rohde-schwarz.com



**SoftBank Robotics**  
www.meetwhiz.com



**Kassow Robots**  
www.kassowrobots.com



**ODU**  
www.odu.dk



**RotoWorks**  
www.rotoworks.dk



**Spectrofly Aps**  
www.spectrofly.dk



**Københavns Professionshøjskole S/I**  
www.futureclassroomlab.dk



**OEM AUTOMATIC KLITSØ A/S**  
www.oemklitso.dk



**RubiNord**  
www.rubinord.dk



**SubBlue Robotics ApS**  
www.subbluerobotics.com



**L&T Technology Services Limited**  
www.ltts.com



**OMRON ELECTRONICS A/S**  
www.industrial.omron.dk/da/home



**S/I Erhvervshus Sjælland**  
www.ehsj.dk



**Techvolver**  
www.techvolver.com



**LANGEBÆK A/S**  
www.langebaek.com



**PEPPERL + FUCHS A/S**  
www.pepperl-fuchs.com



**SCANCON ENCODERS A/S**  
www.scancon.dk



**TEKPARTNER A/S**  
www.tekpartner.dk



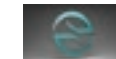
**Meili Robots**  
www.meilirobots.com



**PHOENIX CONTACT A/S**  
www.phoenixcontact.com/da-dk



**Scandinavian Drone Solutions ApS**  
www.scandidrones.com



**Teknologirådet**  
www.tekno.dk



**Monopulse**  
www.monopulse.eu



**PKJ Robotics**  
www.pkj-robotics.dk



**Schneider Electric Danmark A/S**  
www.se.com



**Tekniq Arbejdsgiverne**  
www.tekniq.dk



**mpeople**  
www.mpeople.dk



**REGAL A/S**  
www.regal.dk



**Seasony**  
www.seasony.io



**Udenrigsministeriet, Invest in Denmark**  
www.investindk.com



# Member directory

UAV COMPONENTS ApS  
www.uvxtechnologies.com



Aris Robotics  
www.aris-robotics.com



CABINPLANT A/S  
www.cabinplant.com



Fynbo Technology  
www.fynbo-tech.com



Vejdirektoratet  
www.vejdirektoratet.dk



Automation Lab  
www.automationlab.dk



Coalescent Mobile Robotics  
www.cm-robotics.com



GAIN & CO aps  
www.gainco.dk



WeFly ApS  
www.wefly.dk



Autonomous Disinfection Technologies ApS  
www.audite.ai



DanaDynamics ApS  
www.danadynamics.com



GIBOTECH A/S  
www.gibotech.dk



WEIBEL SCIENTIFIC A/S  
www.weibelradars.com



Autonomous Units  
www.a-units.com



DanRobotics A/S  
www.danrobotics.dk



GoBe Robots ApS  
www.gobe-robots.com



X-drive Robots ApS  
www.xdriverobots.com



B&R Industrial Automation A/S  
www.br-automation.com/en



DroneFyn  
www.dronefyn.dk



Graphic Robotics ApS  
www.graphicrobotics.org



Zolvo  
www.zolvo.eu



BIPA A/S  
www.bipa.dk



EffiMat Storage Technology  
www.effimat.com



ICS A/S  
www.ics.as



## ODENSE HUB

4X-Robots  
www.4x-robots.com



BLUE OCEAN ROBOTICS ApS  
www.blue-ocean-robotics.com



Enabled Robotics ApS  
www.enabled-robotics.com



INROTECH A/S  
www.inrotech.com



Adwizors.com IVS  
www.adwizors.com



Bionic System Solutions  
www.bionicsystemsolutions.com



Flip Robotics

Intego A/S - Odense  
www.intego.dk



ALMEXA A/S  
www.almexa.dk



Buildcode IVS  
www.buildcode.dk



Fundingbox Research ApS  
www.fundingbox.com



INWATEC ApS  
www.inwatec.dk



# Member directory

JORGENSEN ENGINEERING A/S  
www.jorgensen.dk



Maskinfabrikken HMA  
www.hma.dk



Odense Universitetshospital  
www.ouh.dk/wm477703



RobStruct  
www.robstruct.com



KEN HYGIENE SYSTEMS A/S  
www.ken.dk/



MICRO TECHNIC A/S  
www.micro-technic.com



ODICO A/S  
www.odico.dk



ROEQ ApS  
www.roeq.dk



KOBOTS  
www.kobots.dk



MIR  
www.mobile-industrial-robots.com



OnRobot A/S  
www.onrobot.com



SANOVO TECHNOLOGY A/S  
www.sanovogroup.com/



KUBO Robotics ApS  
www.kubo.education



Mollerup Automation ApS  
www.mollerup.info



Plan2Fly  
www.plan2fly.com



Sanovo Technology Robotics A/S  
www.sanovorobotics.com



LapTics  
www.sdu.dk/en/forskning/sdurobotics/researchprojects/laptics



MRR PRODUKTION A/S  
www.mrr.dk



PRODUKTIONSTEKNIK ApS  
www.produktionsteknik.dk



SCAPE TECHNOLOGIES A/S  
www.scapetechnologies.com



Larsen Robotics

Naust Robotics ApS  
www.naustrobotics.com



Produktion og Innovation, DTI  
www.teknologisk.dk



SCHUNK INTEC A/S  
www.schunk.com



LEICA GEOSYSTEMS TECHNICAL  
www.leica-geosystems.com



NewIcon ApS  
www.newicon.fi/da



QuadSAT ApS  
www.quadsat.com



SCIENCE VENTURES DENMARK A/S  
www.scienceventures.dk/da/forside



Lifeline Robotics A/S  
www.lifelineroobotics.com



Nidec Industrial Automation Denmark A/S  
www.nidec.com/en/corporate/network/sales/ls\_denmark\_sa



REInvest Robotics ApS  
www.reinvestrobotics.com



SENMATIC A/S  
www.senmatic.com



LINDØ port of ODENSE A/S  
www.lpo.dk



Nord Modules A/S  
www.nord-modules.com



Robot at Work  
www.robotatwork.com



SENSOHIVE TECHNOLOGI  
www.sensohive.com



Lorenz Technology ApS  
www.lorenztechnology.com



Odense Rådhus  
www.odense.dk



Robot Nordic ApS  
www.robotnordic.com



SKN A/S  
www.skn-as.dk





# Member directory

SKY LEVEL IVS



TOP CNC ApS  
www.TOP-CNC.DK



Viking Drones  
www.viking-drone.com



CCM ELECTRONIC ENGINEERING ApS  
www.ccm-ee.dk/da



Smooth Robotics ApS  
www.smooth-robotics.com



trendlog.io ApS  
www.trendlog.io



Viking Software A/S  
www.vikingsoftware.com



ChangeForce ApS  
www.changeforce.dk/da



Spin Robotics IVS  
www.spin-robotics.com



TriVision A/S  
www.trivision.dk



Visti Unlimited ApS  
www.vistiunlimited.com



CS ELECTRIC A/S  
www.cselectric.dk/



SVEND FREDERIKSEN MASKINFABRIK A/S  
www.sfm.dk



UCL  
www.ucl.dk



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DANAUTOMATION ApS  
www.danautomation.dk



SYD Dynamics ApS  
www.syd-dynamics.com



UNIVERSAL ROBOTS A/S  
www.universal-robots.com



3TECH AUTOMATION A/S  
www.3tech.dk



Danfoss Drives  
www.danfoss.com



Syddansk Erhvervsskole Odense-Vejle  
www.sde.dk/til-virksomheder/videnscenter



Upteko ApS  
www.creativesight.eu



AGRAMKOW FLUID SYSTEMS A/S  
www.agramkow.com



DESIGNSKOLEN KOLDING  
www.designskolenkolding.dk



Syddansk Universitet  
www.sdu.dk



UVD Robots ApS  
www.uvd-robots.com



Alsmatik A/S  
www.alsmatik.dk



Dronevic ApS  
www.dronevic.dk



Tietgenskolen  
www.tietgen.dk



VALK WELDING DK A/S  
www.valkwelding.com/dk



Belden  
www.belden.com



EasyRobotics ApS  
www.easyrobotics.biz



TOMMERUP ELEKTRONIK A/S  
www.teas.dk



VAC Consulting  
www.vac-consulting.dk



BECKHOFF AUTOMATION ApS  
www.beckhoff.com/da-dk/



ElastiSense ApS  
www.elastisense.com



Tonus Tech  
www.tonus.tech



VesCo Systems ApS



Business Aabenraa  
www.businessaabenraa.com



Erhvervsakademi SydVest  
www.easv.dk



# Member directory

EUC Syd  
www.eucsyd.dk



KIRKHOLM MASKININGENIØRER A/S  
www.kirkholm.dk



Strecon  
www.strecon.com



Udviklingsråd Sønderjylland  
www.soenderjylland.dk



FarmDroid ApS  
www.farmdroid.dk



Nomotec ApS  
www.nomotec.dk



SWIENTY  
www.swienty.com



Weldingdroid  
www.weldingdroid.dk



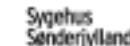
FUJI PACKAGING A/S  
www.fuji-packaging.dk



PEHAMA PRODUCTIONS A/S  
www.pehama.dk



Sygehus Sønderjylland - Aabenraa  
www.sygehussonderjylland.dk



## ABROAD

GCM  
www.gearcentralen.dk



Pilz Skandinavien K/S  
www.pilz.dk



Sønderborg Vækstråd  
www.svr.sonderborg.dk



Liewenthal Electronics Ltd  
www.liewenthal.ee



GRÅSTEN MASKINSERVICE  
www.gms.as



Premium Positioning  
www.premium-positioning.dk



TECH assist  
www.tech-assist.dk



Nordic Unmanned  
www.nordicunmanned.com



Haderslev Erhvervsråd  
www.her.dk



QUBIQA A/S  
www.qubiqa.com



Tentoma  
www.tentoma.com



Septentrio  
www.septentrio.com



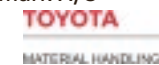
HANNEMANN ENGINEERING ApS  
www.hannemann-eng.dk/



Region Syddanmark  
www.regionsyddanmark.dk



Toyota Material handling Danmark A/S  
www.toyota-forklifts.eu



South Denmark European Office  
www.southdenmark.be



HARTING ApS  
www.harting.dk



rotorcam v/Søren Jørgensen  
www.rotorcam.dk



Trekantområdet Danmark  
www.trekantomraadet.dk



VERTLINER  
www.vertliner.com



Holtec A/S  
www.holtec.dk



SCANDINAVIAN AVIONICS A/S  
www.scanav.com



Trimatic Automation  
www.trimatic.dk



Würth Elektronik Sweden AB  
www.we-online.com



Industri-Automatik A/S  
www.industri-automatik.dk



Signode Denmark ApS  
www.signode.com



Tønder Erhvervsråd  
www.toendererhvervsraad.dk



# Methods

## Scope

This report examines all companies in Denmark with a Danish CVR number that are identified by Odense Robotics as having a relevant focus in the industry within robotics, automation and/or drone technologies. Companies can either be a member of Odense Robotics or identified as relevant through desk research by examining each individual company's share of turnover in the industry as well as the extent to which the company has a strategic focus, dedicated technologies and high-tech service with various application areas.

## Company categories

- **Producer:** Companies that develop and manufacture solutions based on robotic, automation and drone technologies.
- **System integrator:** Companies that bring together various robotic, automation and drone solutions from producers and distributors in one integrated system that can be implemented at the end user. System integrators can also be responsible for installation.
- **Service provider:** Companies that provide robotic services or solutions to end users.
- **Component supplier:** Companies developing and producing advanced value-based subsystems and components for the robot-, automation and drone industry, such as software components, electrical drivetrains, machine construction, sensors as well as vision technologies and advanced drone operators.
- **Consultancy:** Companies that advise producers, distributors, system integrators and component suppliers about their development and manufacturing, and/or advise advanced end users about implementing and deploying robotics technologies.
- **Distributor:** Companies that distribute, sell and service robotic solutions typically via an affiliate.

## Data sources

The report's data is based on quantitative analysis from the following data sources:

- Odense Robotics' master data on members and other companies in the industry.
- Odense Robotics' annual survey of its member companies. The survey data is gathered and examined by the market research agency Wilke A/S. The latest survey was conducted in the period 5-26 January 2022 and had 77 respondents. The result is considered to be representative of the cluster as a whole because responses are evenly spread in terms of e.g. company size and type.
- Statistics Denmark. This data dates back one year and relates to companies that are active in the CVR register and established on 31.12.2020 or before. All data from Statistics Denmark is from end 2020 except from the number of employees abroad, which dates from end 2019.

## Companies, employees, turnover and exports

Company types, technology areas and end-user focus are based on master data given by Odense Robotics member companies. The number of headquarters, workplaces and geographical location is provided by Statistics Denmark.

In order to provide the most accurate picture of the industry's growth and development, Odense Robotics has weighted all known companies in the industry according to an estimation of how big a percentage share of the company's turnover is derived from the industry.

Statistics Denmark then calculates figures for companies' number of employees in Denmark and abroad as well as turnover and exports. The result is based on the weighting. Some very big companies are analysed individually based on publicly available figures rather than data from Statistics Denmark.

Projections for the expected number of employees, turnover and export for 2021-2025 is made by dividing companies into three groups according to the number of employees based on responses to Odense Robotics' survey and data from Statistics Denmark. Projections are calculated based on survey responses to expected development in the number of employees combined with data from Statistics Denmark.

## Investments

Investment in Danish robotic, automation and drone companies is calculated by Odense SEED & VENTURE and includes figures from Dealroom.co. The figure for investments in companies since 2015 is an accumulated figure based on investments made in Funen-based companies until 2019 and national figures from 2020. Additional investments can have taken place without the knowledge of Odense SEED & VENTURE.

External investments in companies in Odense Robotics StartUp Hub are based on figures from Odense SEED & VENTURE. Soft money investment in companies in the Hub are based on figures from Odense Robotics and the Danish Innovation Fund. The number of companies in the Hub is based on Odense Robotics' master data.

## Survey data

The following is derived from Odense Robotics' survey:

- Companies' recruitment issues
- Collaboration with other companies and with other collaboration partners
- Expected increase in turnover
- Exports now and in the future
- Growth barriers
- Sources of capital
- Green transition and circular economy.

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Odense Robotics would like to thank all companies that participated in this survey for their valuable contribution to this report. Please state the source when using or referring to the material in this report. This report is available on Odense Robotics' website.

# About Odense Robotics

Odense Robotics is Denmark's national cluster for robot, automation and drone technology. Our vision is to make Denmark an even bigger, better robot nation. We do this by accelerating innovation and sustainable development in the industry.

We offer companies opportunities to develop innovative products and technologies, strengthen their foundation for growth, gain industry insights, forge valuable relations and increase their visibility. We do this through projects, networks and events – often in close collaboration with our many knowledge partners.

Odense Robotics has regional hubs in Aalborg, Aarhus, Copenhagen and Sonderborg as well as its headquarters in Odense.

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