

A mapping of AI-driven robotics in Rogaland

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Rogaland
fylkeskommune



Building a better
working world



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1.

**Introduction and
executive summary**

Executive summary

AI-driven robotics is emerging across Rogaland

AI-driven robotics is starting to take shape across Rogaland, with companies in several sectors testing and applying autonomous and semi-autonomous systems in operational environments. Activity to date indicates that actors across the region are deploying practical applications of robotics, sensing, and intelligent control systems. While industries are at different maturity levels, there are clear early signs of how AI-driven robotics is being developed and put into use across the region.

Key highlights

1

Robotics activity in Rogaland is emerging across several sectors and reflects practical, real-world needs

Companies in offshore energy, manufacturing, public infrastructure, aquaculture and health are beginning to test and apply robotic systems to support safety, reduce manual work and improve operational consistency.

2

Four broad application areas provide a structured overview of current activity

Most initiatives relate to marine robotics, inspection and sensing technologies, industrial automation, and early-stage emerging applications such as simulation-based training and human–robot interaction.

3

Stakeholders identify several factors that influence further development

The stakeholders highlight a set of recurring challenges in further development of AI-driven robotics, including competence development, access to testing environments, regulatory clarity, data-related issues, and coordination across sectors.



A mapping of AI-driven robotics in Rogaland: Project overview

A mapping of AI-Driven Robotics in Rogaland is a regional initiative led by Stavanger kommune, in collaboration with Haugaland Vekst, and funded by Rogaland fylkeskommune. The project aims to provide a structured overview of the AI-driven robotics landscape in Rogaland, at a time when the industry and public sector are seeking more efficient and sustainable solutions.

Purpose and Goals

The purpose of the project is to support the transformation of the Rogaland economy by creating a shared understanding of existing capabilities, opportunities, and needs related to AI-driven robotics.

The project aims to:

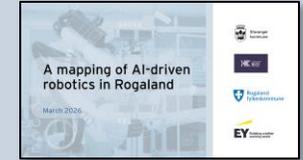
- Make the regional ecosystem for AI-driven robotics visible and accessible.
- Strengthen collaboration across industry, research, and the public sector.
- Provide a knowledge base for targeted development initiatives and future investments.

Scope and Approach

The project covers key regional sectors, including energy, public infrastructure, aquaculture, health and manufacturing. The mapping was conducted through four regional, cross-sector summits and more than 20 in-depth interviews, which together engaged over 100 companies and organizations. This approach has enabled the project to identify key actors and competencies in the region, areas of specialization and collaboration potential, and gaps in skills, infrastructure, and coordination.

The project establishes a practical foundation for wider and more coordinated use of AI-driven robotics in Rogaland, and aims to support collaboration, guide future initiatives, and help position the region's robotics industry, testing arenas and research environments toward ERF 2026.

The purpose of this report



This report provides a structured overview of key actors, capabilities, and technologies within AI-driven robotics in Rogaland. It translates the project's findings into a shared knowledge base to support strategic dialogue and informed decision-making across the public sector, industry, and research environments.

The report is intended to support regional initiatives, strengthen cross-sector collaboration, and contribute to Rogaland's national and international positioning, including profiling toward the European Robotics Forum 2026. It serves as a reference for policymakers, ecosystem actors, technology suppliers, and end users seeking insight into the region's competencies and development potential.

The report is based on insights from regional summits and in-depth interviews with a selected group of companies and organizations and represents a snapshot of the ecosystem at the time of data collection, reflecting the status as of March 2026. The insights presented reflect the perspectives of the participating organizations, acknowledging that other relevant organizations and viewpoints may not have been captured.

Stavanger kommune has been responsible for the data collection, structuring and contextualization. EY has supported the work through analysis of the collected material, development of the report structure, and contribution to the visual design and production of the final report.



The project has involved a wide range of industry stakeholders across the value chain*

4 summits

+ 20 interviews

+ 100 involved companies

Thank you to everyone who contributed!



* The overview is intended to be illustrative rather than exhaustive

2. Background

Introduction to AI-driven Robotics

What is AI-driven Robotics?

AI-driven robotics refers to robotic systems that incorporate artificial intelligence, such as machine learning, perception capabilities and autonomous decision-making. This to interpret their surroundings, learn from data and perform actions in dynamic environments. AI enables robots to handle greater complexity, adapt to real-world conditions and deliver more reliable and efficient performance than traditional, pre-programmed systems.

Across industries, AI-driven robotics is increasingly used to enhance safety, efficiency and operational quality. Robots are particularly relevant for tasks that are repetitive, hazardous, physically demanding or require high precision, and AI contributes to higher autonomy, accuracy and consistency in these applications.

In this study, the focus is also on robotics systems that are not yet fully autonomous, but where we observe an emerging trend toward what is often described as “Physical AI”. This refers to systems where sensors, cameras, lidars and robotic platforms combine multimodal inputs, such as images, video, speech, text and sensor data, to support or execute more complex actions in the physical world autonomously. While few solutions in Rogaland today operate at this level of autonomy, these developments indicate the broader direction of the field.

For this mapping, we therefore use the term “AI-driven robotics” to describe current robotic and physical systems that have the potential to evolve toward more intelligent, autonomous and data-enabled operation. The term allows us to capture both today’s capabilities and the trajectory toward more advanced forms of Physical AI in the years to come.

Simplified value chain for AI-driven Robotics:



Research & Development

R&D includes universities, research groups and innovation environments that develop core robotics technologies, sensors, AI models and simulation tools.

They build the foundational knowledge, prototypes and early-stage concepts that enable commercial suppliers to bring new robotic solutions to market.



Technology & Solution Providers

Suppliers design, build and integrate robotic systems, combining hardware, software, AI and engineering into deployable products and services.

They translate research into practical solutions by delivering robots, platforms, control systems, analytics tools and integration services tailored to industry needs.

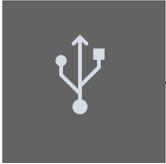


End users (Industry & Public-sector Operators)

End-users apply AI-driven robotics in real operational environments to improve safety, efficiency, quality and sustainability.

They drive adoption by deploying robots in daily operations across offshore energy, aquaculture, manufacturing, logistics, public infrastructure and emergency services.

Global developments are reshaping the robotics landscape

	Convergence of technologies	AI models (LLMs) and advanced robotics hardware are enabling robots to learn, adapt and operate more safely in real-world conditions.
	Global shift toward general robotics	Robotics is moving from specialized industrial tools to general-purpose autonomous machines, supported by faster capability growth through observation-based learning.
	International competition	Intensifying global competition and large-scale investments are turning robotics and AI into a geopolitical and capital-driven race, underscoring the need for faster action.
	Disruption of manual labor	Robots are being designed to work continuously without rest or wages and can learn from human movement data as general purpose systems scale and improve.
	The move toward humanoids	There is a strong international focus on humanoid platforms that can operate within existing human-designed infrastructure.



Rogaland's industry base requires continuous tech adoption to remain competitive

Rogaland has a strong industrial foundation, built on globally competitive and export-oriented sectors. The region hosts several industries that perform at an international level, where oil & gas remains a key pillar despite stabilizing activity.

However, the industries in the region are facing several challenges:



Global competition and cost pressure are intensifying as AI-driven robotics and autonomous systems rapidly increase productivity and system capabilities.



Massive global investments and a technology race among leading nations and companies are accelerating the adoption of advanced automation.



Rising international competition and margin pressure increase the risk of stagnation without decisive action.



Rapid technology adoption is critical to preserve industrial strength, improve efficiency, and maintain regional attractiveness.



Maintaining Rogaland's competitiveness will require a step-change in the adoption of AI-driven robotics and autonomous systems, enabled through targeted deployment of advanced automation across industry

The evolution of robotics in Rogaland

The development of robotics in Rogaland is closely linked to the region's industrial history. Over decades, manufacturing, energy, and maritime industries have built technical capabilities that later formed the basis for robotics and automation activities in the region.

An early milestone occurred in 1969, when Trallfa in Bryne introduced the world's first commercial painting robot. This marked an important step in industrial automation and contributed to the development of engineering and production expertise in the Jæren area. Following ABB's acquisition of Trallfa, the region continued to develop capabilities in robotics-related manufacturing, supported by a network of engineers, suppliers, and industrial actors. These capabilities have influenced subsequent research and industrial development.

From the 1980s onwards, the energy sector in Stavanger and the surrounding region became a significant driver of automation and remote-operation technologies. Offshore operations, combined with safety requirements and operational complexity, led to the adoption of advanced control systems and automation solutions. Over time, this contributed to the development of technologies such as subsea remotely operated vehicles, aerial drones, unmanned surface vessels, and remote operation centers, primarily applied in offshore and maritime contexts.

Technologies and competencies developed for energy and maritime applications have gradually been applied in other sectors. While offshore projects continue to be an important source of technological development, robotics-related activity has expanded into areas such as manufacturing, logistics, agriculture, and service applications. This reflects a broader transfer of industrial knowledge rather than a single, coordinated shift.

Economic factors, including relatively high labor costs, have also influenced the adoption of automation and robotics, particularly within manufacturing. For many companies, robotics has been used as a means to maintain productivity and adapt to changing cost structures. Furthermore, Norway's oil and gas tax regime, which substantially reduces the net cost of R&D investments, has encouraged global companies to prioritize technology development and innovation in Norway, reinforcing the case for automation alongside labor-cost considerations.

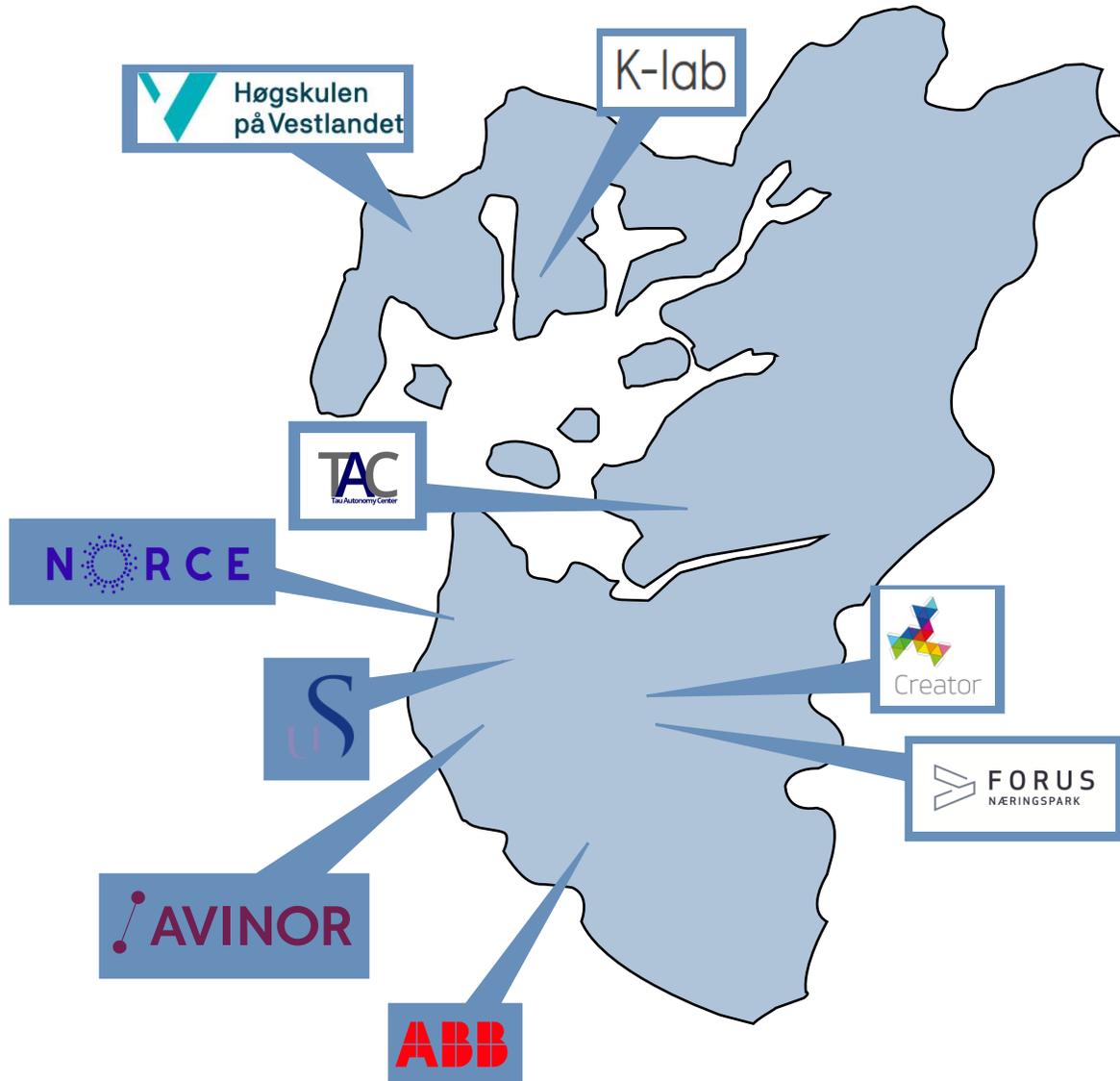
Taken together, Rogaland's experience in industrial production, offshore operations, and automation has created a foundation for continued development of robotics-related technologies. This historical trajectory helps explain the region's current capabilities and provides context for future developments.



3.

**AI-driven robotics in
Rogaland**

Education, research and test arenas supporting robotics development in Rogaland



Education and research

Rogaland hosts a broad set of education and research environments that together provide a strong foundation for work related to robotics, autonomy and AI-enabled systems. The University of Stavanger, NORCE and Western Norway University of Applied Sciences contribute with programmes, labs and applied research activities within robotics, sensing, mechatronics, simulation, digital engineering and human–robot interaction.

Health-related institutions and companies such as Laerdal Medical, SAFER and HelseCampus which are found at UiS, also offer simulation and training environments that support research and competence development in human–machine interaction and safety-critical operations.

Through academic programmes, interdisciplinary research groups, prototype development and student-driven innovation activities, these environments help build relevant competence and support collaboration between academia, technology suppliers and industry. This combined education–research landscape strengthens knowledge transfer and supports the emergence of new robotics applications across sectors.

Test arenas

Rogaland has several test arenas that enable early-stage experimentation and validation of robotic systems in realistic environments. Tau Autonomy Centre provides maritime and subsea testing, while Ullrigg supports offshore and energy-related pilot operations. K-Lab offers facilities for industrial prototyping and system integration, and ABB contributes with access to industrial robotics equipment and training setups used by companies, researchers and students. Together, these arenas offer practical settings for exploring new robotic solutions across marine, industrial and public-infrastructure applications.

Rogaland is a region with growing activity in AI-driven robotics

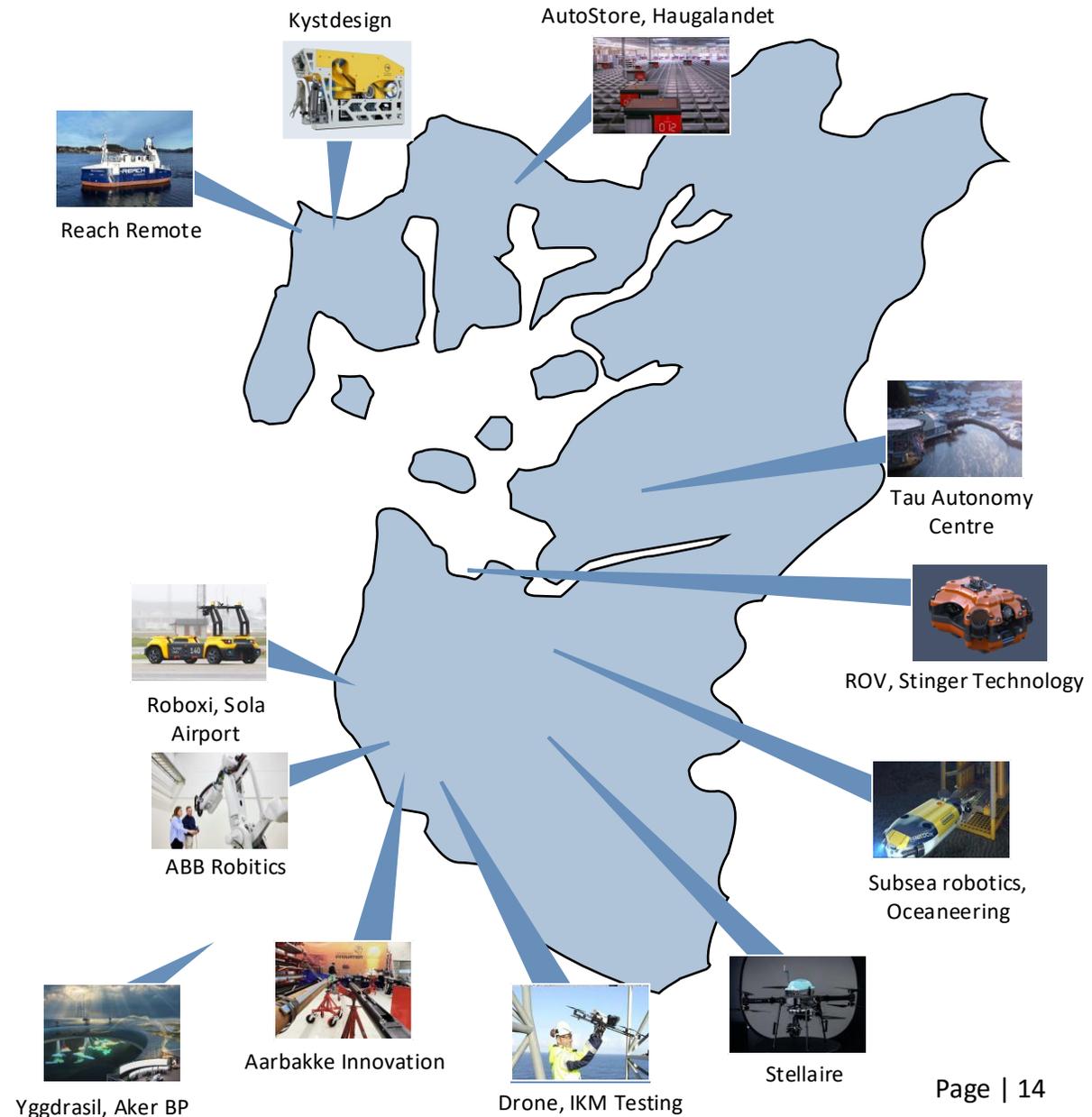
AI-driven robotics is becoming more visible across Rogaland, as companies in several sectors explore and test autonomous and semi-autonomous systems in real operational settings. The activity spans offshore, industrial, infrastructure and health-related domains, and together these efforts illustrate how organizations in the region are gradually examining where robotics may support safer, more consistent and provides more efficient ways of working.

At Sola Airport, autonomous ground-based platforms are being trialed to support continuous inspection of runways, taxiways and apron areas, showing how robotics can assist with repetitive tasks in established operational environments. In offshore and subsea contexts, companies are testing new forms of autonomy, remote operations and sensor-based inspection, supported by access to realistic maritime conditions at facilities such as Tau Autonomy Centre. These initiatives contribute to ongoing development of systems intended to operate reliably in demanding conditions.

On Jæren, industrial actors are introducing AI-enabled automation into production settings, including tools for machining, material handling, assembly and quality control. These applications build on existing engineering and manufacturing competence in the region and illustrate how robotics can be integrated into varied production environments. Health-related organizations are also exploring robotics through simulation-based training and interaction systems that support learning and preparedness in safety-critical situations.

For the energy sector, the Yggdrasil project by AkerBP and Aker Solutions is leading the offshore industry in using robotics and remote operations from land, creating a new market for robots which needs to be able to operate in explosive and tough weather.

These examples form a developing landscape of early applications across Rogaland, where different sectors are testing how autonomous systems, sensing technologies and intelligent control tools may contribute to improved operations. This emerging activity provides the backdrop for the four main areas in which robotics development is currently taking shape in the region.



Four areas where AI-driven robotics activity is emerging in Rogaland

AI-driven robotics is beginning to take hold across Rogaland, where a growing number of organizations are exploring and developing solutions that enhance efficiency, safety and operational quality. The emerging use of intelligent robotic systems can broadly be understood through four areas that reflect the most common applications and technology directions in the region.



Marine robotics

- Marine robotics covers autonomous and remotely operated systems used offshore and at sea, including subsea, surface and maritime operations.
- These solutions enhance safety and efficiency by reducing manual exposure and enabling reliable inspection and operational tasks in demanding marine environments.



Inspection, sensing & remote operations

- Inspection, sensing & remote operations covers robotic systems that collect data, monitor assets and perform tasks remotely using aerial or ground-based platforms in industrial, public-infrastructure and land-based environments.
- These solutions enhance safety, reduce manual effort and provide continuous, autonomous insight into critical assets and operational areas.



Industrial automation, smart production & logistics

- Industrial automation, smart production & logistics covers robots and AI-enabled systems used to optimize manufacturing, material handling and industrial workflows in controlled production and logistics environments.
- These solutions increase productivity, precision and consistency by automating repetitive tasks, enhancing quality control and streamlining the movement of goods and components.



Emerging technologies & use-areas

- Emerging technologies & use-areas includes early-stage and cross-domain robotics fields such as humanoid systems, health-related robotics and other novel applications that are beginning to take shape.
- These areas represent emerging opportunities where new forms of autonomy, interaction and intelligent robotics may create future value across multiple industries.



Marine robotics



Example - Stinger Technology

Develops compact and highly agile ROV systems used for subsea inspection, survey and light intervention in demanding offshore environments. Their vehicles provide reliable data collection and reduce the need for vessel-based manual operations.

Photo: Stinger Technology



Description

Marine robotics covers autonomous and remotely operated systems used offshore and at sea, supporting tasks such as inspection, hull cleaning, intervention, navigation and continuous monitoring in demanding marine environments. These solutions enhance safety and efficiency by reducing manual offshore exposure and enabling reliable operations across subsea, surface and maritime applications. AI-enabled marine robotics can significantly reduce reliance on traditional vessel-based operations, which lowers offshore costs while also improving safety and environmental performance

Typical technologies

- **Autonomous and remotely operated vehicles (ROVs/AUVs)** for underwater inspection, survey and intervention.
- **Marine sensing systems** using optical, sonar and environmental sensors to collect high-quality data.
- **Advanced control and navigation software** enabling precise movement, mission planning and remote operation.
- **Surface and subsea robotic tools** for cleaning, maintenance and targeted repair tasks.

Opportunities and value added

- **Improved safety** by reducing the need for personnel in hazardous offshore and underwater environments.
- **Lower operational emissions and cost** through resident subsea vehicles and autonomous surface platforms that reduce vessel time.
- **More predictable maintenance** enabled by frequent, high-quality data and continuous monitoring.
- **Higher efficiency** in inspection, repair and maintenance (IRM) operations through autonomous and remotely operated systems.

Relevant industries



Energy



Maritime



Aquaculture

Inspection, sensing & remote operations



Description

Inspection, sensing & remote operations covers robotic systems that use aerial or ground-based platforms to collect data, monitor assets and perform tasks remotely across industrial, public-infrastructure and land-based environments. These solutions reduce manual inspection work, enhance safety and enable continuous, autonomous insight into equipment, facilities and operational areas.

Typical technologies

- **Aerial and ground-based drones** equipped with cameras and sensors for visual inspection and environmental monitoring.
- **Machine-vision and imaging systems** that detect anomalies, measure condition and document asset status.
- **Remote operation and control** platforms that allow operators to perform inspections and tasks from a safe location.
- **Multi-sensor data fusion tools** that combine visual, thermal or environmental data into actionable insights.

Opportunities and value added

- **Greater safety** by reducing the need for manual access to hazardous, elevated or hard-to-reach areas.
- **Reduced downtime** through frequent, autonomous and consistent inspection cycles.
- **Improved decision-making** supported by higher-quality data and real-time visibility into asset condition.
- **More efficient operations** as repetitive inspection tasks are automated and performed with higher accuracy.

Example - Roboxi

Roboxi delivers an autonomous ground-based inspection robot that monitors runways, taxiways and apron areas using cameras and sensors. The system increases operational safety by performing consistent, automated airport infrastructure inspections.

Relevant industries



Renewable energy



Manufacturing



Engineering & machining



Logistics and warehousing



Infrastructure

Industrial automation, smart production & logistics

Example - RemBrain

RemBrain builds AI-enabled production stations that perform automated tasks such as pick-and-place, assembly, testing and quality control. Their solutions support flexible, high-mix manufacturing with improved precision and efficiency.



Description

Industrial automation, smart production & logistics covers robots and AI-enabled systems that streamline manufacturing, assembly, material handling and quality control in controlled production and logistics environments. These solutions replace or support repetitive and precision-demanding tasks, improving throughput, consistency and the flow of goods and components.

Typical technologies

- **Robotic production stations and cobots** that automate assembly, pick-and-place and repetitive manufacturing tasks.
- **Automated material-handling systems** such as robotic conveyors, AGVs/AMRs and logistics robots that manage internal flows.
- **Machine-vision and quality-control systems** that inspect parts, verify tolerances and support high-mix production.
- **Integrated control and automation software** that coordinates robots, sensors and production lines for efficient operations.

Opportunities and value added

- **Higher productivity** and throughput by automating repetitive manufacturing and logistics tasks.
- **More consistent quality** supported by machine-vision and precision-based robotic operations.
- **Greater flexibility in high-mix production** where products change frequently.
- **Reduced operational cost** through fewer manual handling steps and more reliable automated workflows.

Relevant industries



Manufacturing



Engineering & machining



Logistics and warehousing



Food production

Emerging technologies & use-areas



Description

Emerging technologies & use-areas include robotics fields that are still in early development, niche applications, or new forms of autonomy that do not naturally fit within the other categories. These areas often combine robotics with advanced AI, simulation, sensing or human interaction in ways that open up new possibilities for future applications.

Although still developing, these technologies illustrate the breadth of innovation happening in robotics—ranging from humanoid systems and medical simulation robots to experimental mobility concepts and specialized safety or training applications.

Typical technologies

- **Simulation and training robots** that mimic human responses and allow realistic practice for medical, safety or emergency scenarios.
- **Humanoids and general-purpose robots** designed to navigate human environments, use tools, and perform flexible, multi-step tasks normally done by people.
- **Safety and protection robotics** equipped with sensors and autonomous functions to operate in hazardous or high-risk environments.
- **Experimental mobility platforms** that explore new forms of autonomous movement across air, land or hybrid domains.

Opportunities and value added

- **New application areas**, enabling robotics to support training, healthcare, emergency preparedness and other complex human-centred tasks.
- **Early-stage innovation potential**, where emerging technologies may grow into future commercial markets and specialized niches.
- **Cross-domain knowledge transfer**, building on offshore, industrial and inspection expertise to accelerate development in less-established robotics fields.
- **Improved safety and operational readiness**, as simulation, humanoids and autonomous systems reduce human exposure and strengthen decision-making in demanding settings.

Example - Laerdal Medical

Laerdal develops and manufactures simulation-based medical equipment and software used in healthcare education and resuscitation training - spanning birthing simulators to CPR simulators. Laerdal provides immersive technologies and data-centric insights with an ecosystem of products designed to support healthcare personal through their entire career.

Photo: Laerdal Medical

Relevant industries



Healthcare



Defence and security



Public safety & emergency services



Retail

The ecosystem of AI-robotics in Rogaland*

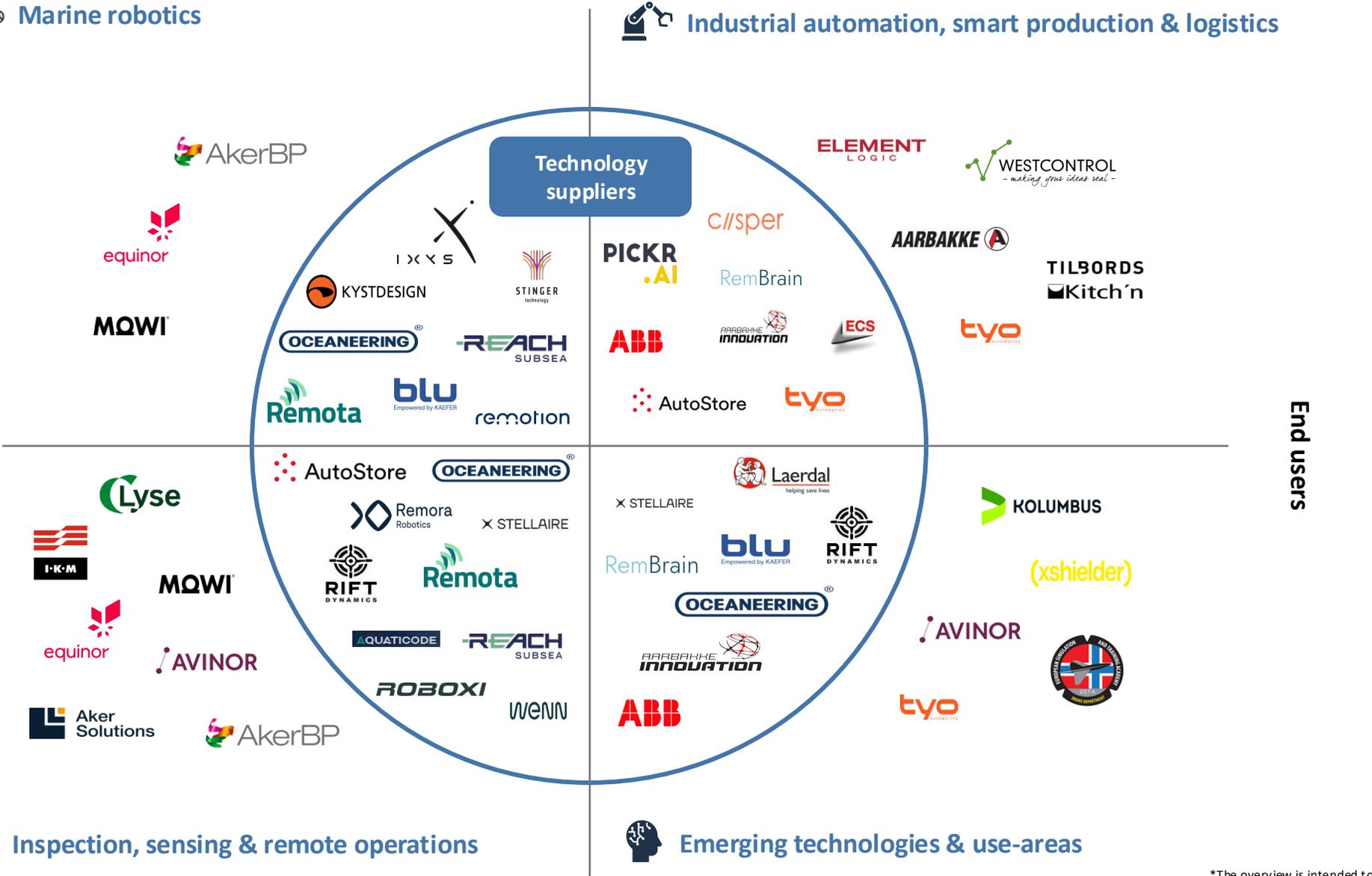
 Marine robotics

 Industrial automation, smart production & logistics

R&D, test arenas and education

End users

End users



R&D, test arenas and education

US

Høgskulen på Vestlandet

K-lab

SINTEF

NORCE Ullrigg Test Center

TAC Tau Autonomy Center

Havtil

Rogaland fylkeskommune

hvlrobotics

FORUS NÆRINGS-PARK

SIMSEA REAL OPERATIONS

Sjøfartsdirektoratet Norwegian Maritime Authority

Maritimt Forum

 Inspection, sensing & remote operations

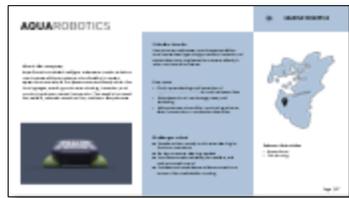
 Emerging technologies & use-areas

*The overview is intended to be illustrative rather than exhaustive

Selected examples of AI-driven robotics in Rogaland

Overview of selected examples of AI-driven robotics in Rogaland. Detailed information about each example is available in the appendix

Marine robotics



AQUAROBOTICS

What is the company?

What is the project?

Key challenges

Key results

Key stakeholders

Map of Rogaland



LIXA

What is the company?

What is the project?

Key challenges

Key results

Key stakeholders

Map of Rogaland



remotion

What is the company?

What is the project?

Key challenges

Key results

Key stakeholders

Map of Rogaland



VIA

What is the company?

What is the project?

Key challenges

Key results

Key stakeholders

Map of Rogaland

Inspection, sensing & remote operations



btu

What is the company?

What is the project?

Key challenges

Key results

Key stakeholders

Map of Rogaland



Remona

What is the company?

What is the project?

Key challenges

Key results

Key stakeholders

Map of Rogaland



ROBOXI

What is the company?

What is the project?

Key challenges

Key results

Key stakeholders

Map of Rogaland



velo

What is the company?

What is the project?

Key challenges

Key results

Key stakeholders

Map of Rogaland



wenn

What is the company?

What is the project?

Key challenges

Key results

Key stakeholders

Map of Rogaland

Industrial automation, smart production & logistics



tyo

What is the company?

What is the project?

Key challenges

Key results

Key stakeholders

Map of Rogaland



EVA

What is the company?

What is the project?

Key challenges

Key results

Key stakeholders

Map of Rogaland



PICKR AI

What is the company?

What is the project?

Key challenges

Key results

Key stakeholders

Map of Rogaland



RemBrain

What is the company?

What is the project?

Key challenges

Key results

Key stakeholders

Map of Rogaland



indurion

What is the company?

What is the project?

Key challenges

Key results

Key stakeholders

Map of Rogaland



ABB

What is the company?

What is the project?

Key challenges

Key results

Key stakeholders

Map of Rogaland

Emerging technologies & use-areas



Humanoid guide

What is the company?

What is the project?

Key challenges

Key results

Key stakeholders

Map of Rogaland



Humanoid guide

What is the company?

What is the project?

Key challenges

Key results

Key stakeholders

Map of Rogaland



University of Stavanger

What is the company?

What is the project?

Key challenges

Key results

Key stakeholders

Map of Rogaland

4.

**Key challenges and
possible next steps**

Stakeholders across the AI-robotics ecosystem experience challenges differently

Different actors across the ecosystem experience today's challenges in AI-driven robotics in distinct ways, and their perspectives help explain why several of the barriers persist.

End users

- Show clear interest in robotics but remain cautious due to cost, risk and operational uncertainty.
- Adopt new technology when benefits are proven and reliability is demonstrated.
- Balance long-term ambitions with short-term practical considerations.

Public authorities and regulators

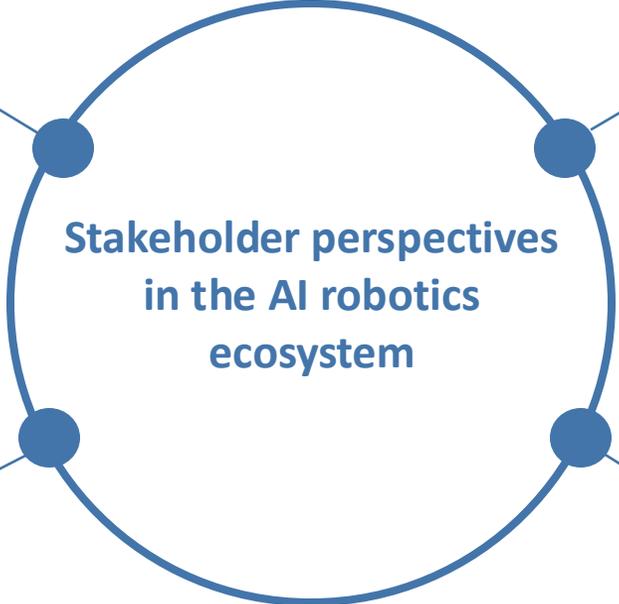
- Want to enable innovation but experience competence gaps as technology evolves faster than regulation and internal expertise.
- Prioritize safety, compliance and responsible implementation.
- Are cost-conscious and require clear justification for new initiatives.
- Conservative public procurement practices.

Technology suppliers and developers

- Are generally optimistic and eager to adopt new technology as a business opportunity.
- Depend on customer engagement to validate solutions, creating a "chicken-and-egg" dynamic between R&D and commercial adoption.
- Face challenges scaling solutions without early market traction due to limited market size in Norway and Rogaland, in particular for B2C applications.

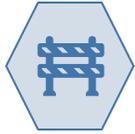
Education and training institutions

- Higher education environments emphasize AI models and applications more than hardware-oriented robotics.
- Vocational colleges play an important role in reskilling but must stay closely aligned with industry needs.
- Upper secondary schools depend on continuous cooperation with companies to stay updated.
- Student organizations crucial for building specialized robotics competence.



**Stakeholder perspectives
in the AI robotics
ecosystem**

Progress in AI-driven robotics in Rogaland depends on resolving several key challenges



As AI-driven robotics develops across Rogaland, some structural and practical challenges continue to delay wider adoption. This section summarizes the key barriers identified by companies, research environments and public actors, and outlines where coordinated effort will be needed to accelerate progress.

Key challenges identified in this project:

-  **Need for continued investment and better access to test arenas**
Actors across subsea, industrial and drone/mobility robotics emphasize the need for continued investment and improved access to test arenas — including deep-sea zones, indoor labs, shared hardware facilities and realistic demo environments — as test and demonstration needs vary significantly across domains.
-  **Lack of specialized competence**
Companies report shortages of key skills such as AI engineering, mechatronics, embedded electronics, hardware/FPGA expertise and hybrid profiles that combine domain knowledge with AI. This limits speed of development and delays scaling. Need for closer integration between training and education from high school to university.
-  **Access to capital for scaling hardware and robotics**
Several actors highlight difficulty securing investment for moving from prototype to industrial-grade solutions. Hardware-heavy robotics requires more funding and longer lead times. Market size for B2C is a challenge, easier for B2B applications but demanding in-house technology development capital requirements.
-  **Regulatory frameworks that lag behind technological innovation**
Regulatory frameworks are struggling to keep pace with rapid technological progress, and authorities often lack the specialized competence needed to assess and regulate emerging autonomous systems. This creates uncertainty in approval processes and operational requirements, particularly in offshore and maritime contexts. This is particularly relevant in the oil and gas sector, where operations take place in explosive environments with strict safety requirements. Regulators need to balance technological eagerness with safety and environmental considerations.
-  **Cybersecurity and business models limit access to structured, shared and high-quality data**
Companies report fragmented data, strict ownership rules, biological variability (aquaculture) and lack of shared datasets across industry and research partners.
-  **Conservative customer adoption and unclear commercial models**
Start-ups and integrators experience slow market uptake due to risk aversion, unclear ROI and limited willingness to pay for early-stage development. This slows transition from pilot to commercial use.

Proposed next steps for accelerating AI-driven robotics

The following next steps outline practical actions that can strengthen the development and application of AI-driven robotics in Rogaland. To ensure real impact, these measures must be developed and implemented in close collaboration with industry, academia and local authorities, building on the region's existing strengths and shared priorities. Coordinated effort across these stakeholders will be essential to translate today's potential into long-term regional value



Benchmark and collaborate with leading national and international ecosystems

- Establish structured exchanges with robotics hubs in Norway and abroad.
- Compare best practices in education, test infrastructure and public–private collaboration.
- Apply insights to strengthen regional priorities and positioning.
- Deepen understanding of the value-creation potential of AI-driven robotics for Rogaland — today and in the future.



Strengthen regional competence development in AI robotics

- Coordinate education pathways between upper secondary schools, vocational colleges and universities.
- Support industry-linked training, apprenticeships and continuing education programs.
- Strengthen student organizations that help building specialized robotics competence



Expand and coordinate access to regional test arenas

- In close collaboration with industry establish infrastructure as needed.
- Improve access for companies, researchers and students through coordinated booking and use.
- Identify gaps and support additional local test zones where needed.



Facilitate structured arenas for industry–academia–government collaboration

- Establish regular problem-presenter forums and joint workshops.
- Support early-stage pilots through coordinated matchmaking between stakeholders.
- Support and establish robotics competitions, hackathons and industrial defined challenges.

Appendix – Examples of AI Robotics in Rogaland

AQUAROBOTICS

About the company

Aqua Robotics provides intelligent underwater robotic solutions that increase efficiency, safety, and profitability in modern aquaculture operations. Our systems operate directly within fish farming cages, enabling continuous cleaning, inspection, and monitoring without manual intervention. The result is improved fish welfare, reduced operational risk, and lower lifecycle costs.



Robotics domain

Autonomous underwater robotic systems deliver continuous cleaning and high-precision inspection of aquaculture nets, engineered to operate reliably in harsh marine environments.

Use cases

- Continuous cleaning and inspection of aquaculture nets to maintain optimal water flow
- Early detection of net damage, wear, and biofouling
- Maintenance and condition monitoring without diver intervention or production downtime

Challenges solved

- ✓ Enables uninterrupted, continuous cleaning for fish farm operations
- ✓ No high-pressure cleaning needed
- ✓ Improves operational safety, fish welfare, and environmental control
- ✓ Provides actionable data and documentation to support informed decision-making



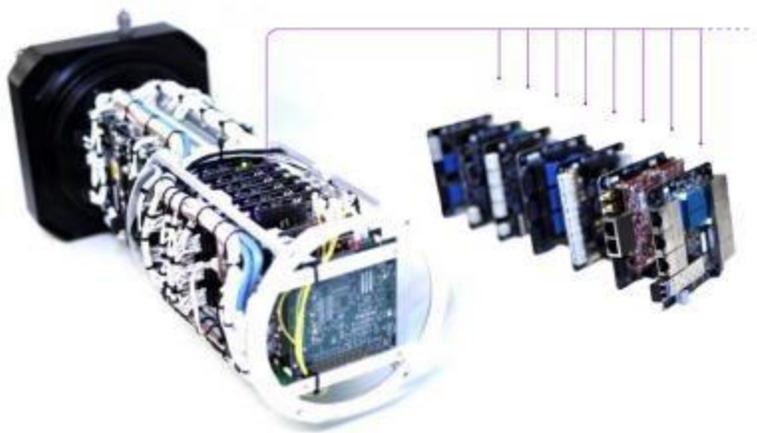
Relevant industries

- Aquaculture
- Fish farming



About the Company

Ixys delivers advanced control systems and components for subsea, surface, air, and space applications. We handle the entire process – from mechanical and electronic design to embedded systems and software.



Robotics domain

Tailored control systems for remote operations, machine control and precise data acquisition through sensor integration for a wide range of applications

Use cases

- Tool for robotic coating removal
- Riserless coiled tubing technology
- ROV tooling for FPSO turret operations
- Runway inspection robot

Challenges solved

- ✓ Revolutionizing airport runway safety and efficiency with Ixys control system.
- ✓ Coating removal, preparation for inspection, and recoating/shielding without the use of divers under an FPSO turret
- ✓ Transformed a standard subsea injector and stripper into fully automatic riserless coiled tubing system



Relevant industries

- Subsea operations
- Control systems to surface, air and space

About the Company

Remotion develops and provide ultimate robotic solutions for offshore and industrial asset maintenance, with a strong focus on splash zone operations. Being part of the global Altrad Group, we offer complete capabilities globally reducing personnel hazard exposure, while prolonging asset lifetime with efficient and reliable services.



Robotics domain

Advanced in-house designed robotic systems providing inspection, maintenance and repair to prolong lifetime of industry assets in a safe manner.

Use cases

- Splash zone hull crack repair
- Complex chain cutting
- Ship hull maintenance

Challenges solved

- ✓ Reduces risk in hazardous splash zone operations
- ✓ Enables maintenance in harsh weather conditions
- ✓ Improves safety for offshore personnel
- ✓ Supports more sustainable offshore operations



Relevant industries

- Offshore and on-shore oil and gas
- Maritime and ship
- Asset integrity and maintenance

About the Company

Technology develops robotic solutions for subsea and offshore operations, focusing on small and agile ROV systems that can be handled by personnel and deployed with or without a vessel. This enables high accessibility to assets and flexible launch and recovery across a wide range of operations. delivers field-proven ROV services for major offshore operators and performs engineering of custom subsea technology for specialized operations.



Robotics domain

Remotely operated and autonomous robotic systems for subsea inspection, intervention and offshore operations, designed as small, lightweight and agile systems for flexible deployment in demanding marine environments.

Use cases

- Subsea inspection and intervention
- Remote offshore operations
- Inspection and maintenance of subsea assets

Challenges solved

- ✓ Reduces the need for manned offshore operations
- ✓ Enables efficient and repeatable subsea operations
- ✓ Improves safety in hazardous marine environments
- ✓ Supports reliable offshore inspection and intervention through lightweight systems



Relevant industries

- Energy Defence
- Aquaculture
- Scientific and research operations

About the Company

Monkeybot is a next-generation, ATEX/EXrated climbing robot developed by KAEFER blu in collaboration with Aarbakke Innovation and Bouvet. Designed to navigate complex pipe networks with precision, MonkeyBot performs targeted corrosion under insulation inspections using advanced radiographic technology.



Robotics domain

Smart inspection utilizing Monkeybot - the climbing industrial robot designed to navigate pipe networks for targeted inspection in complex process facilities.

Use cases

- Remote-controlled climbing and navigation across complex piping systems.
- Targeted CUI inspections using advanced radiographic technology (C-View).
- Inspection of hard-to-reach or inaccessible piping sections without scaffolding or rope access

Challenges solved

- ✓ Accesses complex pipe networks safely
- ✓ Enables targeted CUI inspection
- ✓ Reduces manual work in hazardous areas
- ✓ Supports predictive maintenance workflows



Relevant industries

- Energy and process plants
- Oil & Gas facilities
- Industrial infrastructure
- Inspection automation

About the Company

Remora Robotics develops autonomous robotic solutions for inspection and cleaning of ship hulls. The company focuses on collecting reliable data from vessels in operation to support maintenance decisions and efficient maritime operations.



Robotics domain

Autonomous robotic systems for inspection and cleaning of ship hulls, combining robotics, sensing and data capture in maritime operations.

Use cases

- Hull inspection and condition assessment
- Biofouling detection and monitoring
- Autonomous data collection on vessels

Challenges solved

- ✓ Detects damage to nets, hulls and underwater structures
- ✓ Reduces environmental and biological risk
- ✓ Provides time-stamped inspection data and documentation
- ✓ Supports compliance and dialogue with authorities



Relevant industries

- Shipping and maritime operations
- Aquaculture
- Ports and marine services

ROBOXI

About the Company

Roboxi develops autonomous robotic platforms designed to operate in demanding industrial environments. The company focuses on reliable, scalable inspection solutions that reduce risk, cost and manual work.



Robotics domain

Autonomous ground robots for inspection, monitoring and data collection in complex industrial settings.

Use cases

- Inspection and maintenance operations of airport runways, taxiways and aprons

Challenges solved

- ✓ Reduced need for manual inspection
- ✓ Enables continuous and repeatable data collection
- ✓ Improves safety in hazardous environments
- ✓ Supports predictive maintenance and decision making



INSPECTION, SENSING & REMOTE OPERATIONS



Relevant industries

- Aviation and airports
- Airside inspection and maintenance
- Runways, taxis and aprons
- Operational safety and data-driven workflows

About the Company

Wenn develops AI-based inspection systems that automate visual assessment tasks and detect irregularities in physical assets. The company's solutions improve efficiency and accuracy in inspection workflows.

Robotics domain

AI-powered imaging and automated inspection systems that support physical asset assessment and condition monitoring.

Use cases

- Automated vehicle inspection
- Damage detection and reporting
- Inspection augmentation with structured light and vision

Challenges solved

- ✓ Reduces manual inspection time and effort
- ✓ Supports high-volume inspection workflows
- ✓ Improves accuracy and consistency of assessments



Relevant industries

- Automotive and rental services
- Parking and airport operations
- Asset inspection and condition monitoring



About the Company

Velo Robotics offers a team of experts with expertise in mechanics, robotics, digital product development, 3D design, and visualization. We work closely with our customers to deliver solutions that work in practice and with a fast path to market, whether you need help getting your ideas down to paper or develop existing products.



Robotics domain

The expert team from Velo Robotics develop, design and build a wide range of industrial robotics and solutions.

Use cases

- Roboxi - a specialized runway robot
- Watbots - a robot for cleaning and inspection of aquaculture nets
- ACE - structured concept study for safer installation of clams for control lines

Challenges solved

- ✓ Roboxi: revolutionizing airport runway inspection, detects birds and faulty light bulbs and monitors the condition of the runway
- ✓ Watsbots: battery-powered robot operating on both sides of the net cleaning and documenting condition
- ✓ Concept study giving ACE a clear technical basis for decision-making before further detailing and development.



Relevant industries

- Aviation
- Aquaculture
- Infrastructure
- Construction

About the Company

TYO Automation designs and integrates customized automation and robotic solutions for industrial production. The company works closely with manufacturers to develop systems that improve efficiency, quality and reliability in automated operations. TYO Automation also offers support, maintenance, upgrades and life cycle management.



Robotics domain

Design and integration of industrial automation and robotic systems for production, testing and handling in manufacturing environments.

Use cases

- Robotic production lines
- Automated testing and assembly
- Custom automation solutions for manufacturing

Challenges solved

- Automates complex and repetitive production tasks
- Reduces manual handling and operational errors
- Improves production efficiency and consistency
- Enables flexible and scalable manufacturing



Relevant industries

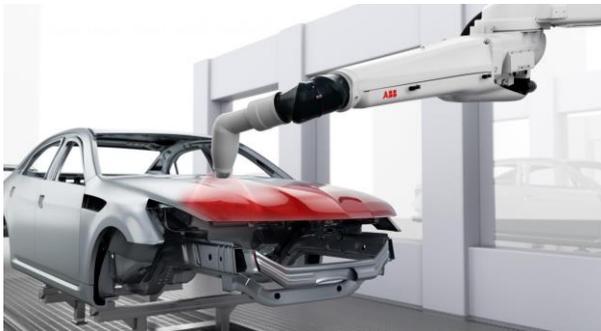
- Manufacturing and production industries
- Process and discrete manufacturing
- Industrial product developers



About the Company

ABB is a preeminent global technology leader in electrification and one of the largest industrial robotics companies in the world.

In Bryne, Norway, ABB maintains a distinguished Global Competence Center for robotics, operating at the intersection of historical legacy and future-facing innovation. As the site where the world's first commercial painting robot was pioneered, the Bryne facility now leads the development and integration of sophisticated robotic painting and finishing systems. ABB Robotics was recently awarded funding from Norway's Research Council for the project ConCerT (Automated Continuous Certification and Testing of Industrial Robots) which aims to significantly reduce the time required to test and validate robot control systems, streamline workflows, and improve the development of robots – while adhering to all standardized certification requirements.



Robotics domain

ABB Robotics spans a wide array of industrial robots, cobots, autonomous mobile robots, software and AI and machine automation.

Use cases

- Welding in automotive and metal fabrication
- Painting and coating robots
- Picking, packing and palletizing
- Laboratory automation
- Assembly and testing
- Material handling and machine tending

Challenges solved

- Safety in hazardous zones such as toxic environments of industrial paint booths
- Allows for customization, so that challenges outside of core market can be solved by customer
- Operational efficiency and ROI



Relevant industries

- Automotive
- Logistics
- Electronics
- Construction
- Metal fabrication
- Pharmaceuticals



About the company

ECS Automation delivers automation, control and software solutions for industrial production. The company is part of the Addtech group, consisting of 150 independent technology companies delivering high-tech products and solutions worldwide.

ECS is an innovative and forward-looking system integrator, delivering reliable, efficient and scalable solutions to customers in Norway, Scandinavia and internationally. More information: www.ecs.no



Robotics domain

Automation, control and software systems that support industrial production and enable robotic and automated operations, with strong competence in system integration and multidisciplinary engineering.

Use cases

- Industrial automation and control systems
- Production and process optimization
- Integration of automation, digital and electrical systems

Challenges solved

- ✓ Integrates complex automation, control and electrical systems Enables reliable, flexible and future-ready industrial operation
- ✓ Optimises industrial processes through multidisciplinary expertise
- ✓ Enables reliable, flexible and future-ready industrial operations



Relevant industries

- Manufacturing and production
- Process industries
- Food and beverage
- Aquaculture and fisheries
- Renewable energy, biogas, water and wastewater

About the Company

[Pickr.AI](#) specializes in vertical robotic order picking for cost-effective warehouse automation.

The company enables 24/7 operations without requiring complex infrastructure rebuilds. Pickr's retrofit-friendly systems integrate into existing warehouse workflows, supporting scalable growth.



Robotics domain

Operates at the intersection of AI, robotics and computer vision.

Pickr's core innovation is a robotic arm on a rail system that moves to the inventory. This 3D picking concept utilizes vertical space and wide operational range to handle items across diverse warehouse environments -from simple racks to automated systems.

Use cases

- Robotic order picking
- Automated order fulfillment
- VLM-integrated picking
- AutoStore-integrated picking

Challenges solved

- ✓ Improves picking efficiency, accuracy and predictability
- ✓ Reduces dependency on manual labour
- ✓ Enables 24/7 operations
- ✓ Reduces picking cost per order
- ✓ Supports scalable growth

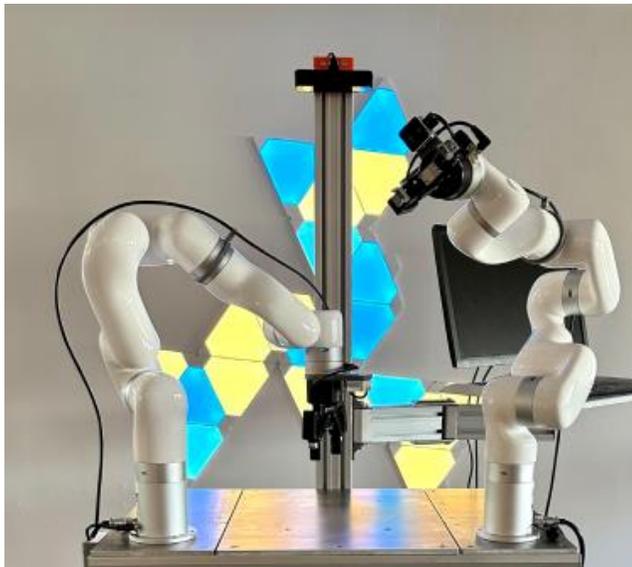


Relevant industries

- E-commerce and retail fulfillment
- Third-party logistics (3PL)
- Warehouse and distribution operations

About the Company

RemBrain develops compact, cage-free, Aldriven robotic production stations for highmix manufacturing, designed to plug directly into existing manual workstations. The company combines over 15 years of industrial AI expertise with best-in-class off-the-shelf robotics.



Robotics domain

Compact, cage-free robotic production stations that plug directly into existing manual workstations.

Use cases

- Automated assembly and fastening
- Dispensing of glue, solvents and silicone
- Vision inspection and presence checks
- Pick-and-place, kitting, sorting and re-orientation

Challenges solved

- ✓ Rapid SKU changeovers in high-mix production
- ✓ Improved worker safety through cage-free automation
- ✓ Short cycle times and high overall equipment effectiveness

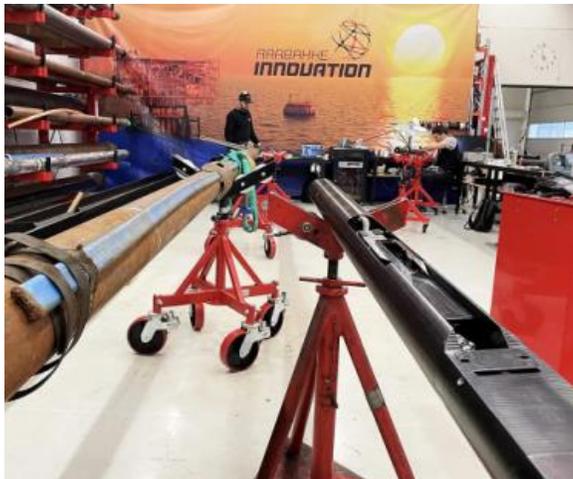


Relevant industries

- Medical equipment production
- Electronic device production
- Battery assembly production

About the Company

Aarbakke Innovation is a product development company focused on robotic systems and special machines adapted for applications where standard solutions are not sufficient. We support development from early concept to production-ready solutions, with compliance to applicable regulations and standards embedded in our engineering approach. We work closely with customers to define and implement practical, fit-for-purpose solutions



Robotics domain

Industrial robotics developed as integrated systems. Mechanical design, electronics, automation, and software are developed together using established principles and standard components to achieve robust, serviceable, and reliable machines for demanding industrial use.

Use cases

- Our work spans Oil & Gas (including Plug and Abandonment), renewables such as geothermal energy, aerospace and defence, maritime, and machine building and special purpose machinery.

Challenges solved

- ✓ We develop robotic solutions for applications where standard automation does not perform adequately. By combining customer-focused problem definition with proven design principles and standard building blocks, we reduce technical risk and deliver robust, scalable solutions adapted for real operating conditions and industrial deployment.



Relevant industries

- Oil & gas
- Manufacturing
- Energy sector
- Transportation

About the Company

www.humanoid.guide is located in Stavanger, Norway by veterans within the Humanoid robot industry with experience from 1x technologies and other robotics companies. Humanoid.guide is engaged in market and technical research with humanoid robotics.

Robotics domain

Research within the field of humanoid robotics, providing technical and financial analysis of the industry as well as industry surveys and buyers guides.

Use cases

- 2026 Humanoid robot market report: <https://humanoid.guide/humanoid-robot-market-report/>
- Buy-a-humanoid: <https://humanoid.guide/buy-a-humanoid/>

Challenges solved

- ✓ Reduces risk in hazardous splash zone operations
- ✓ Enables maintenance in harsh weather conditions
- ✓ Improves safety for offshore personnel
- ✓ Supports more sustainable offshore operations



Relevant industries

- Supplier industry
- Humanoid manufacturers
- Humanoid integrators
- Humanoid customers
- Robotics investors

About HVL robotics

Western Norway University of Applied Sciences (HVL) is one of Norway's largest higher education institutions, with around 16,500 students and 1,900 employees across five campuses in Bergen, Førde, Haugesund, Sogndal and Stord. Robotics, artificial intelligence and advanced digital and electronic technologies are core priorities within HVL's engineering and technology environments. Through close collaboration with industry and the public sector, the university contributes applied research and test environments that support both digitalization and the green transition.

HVL Robotics is an internationally active research group and lab focusing on robotics and AI enabled systems. The group is part of the Department of Computer Science, Electrical Engineering and Mathematical Sciences, which hosts strong research and innovation environments in robotics, AI and data science, sensor networks and software engineering, closely linked to regional industry. Through participation in national and international research projects, and through long-term collaboration with industry partners, HVL contributes research-based knowledge, innovation capacity and skilled graduates to sectors such as robotics and automation, energy, maritime industries and digital services.



Relevant industries

- Manufacturing and production
- Process industries
- Food and beverage
- Aquaculture and fisheries
- Renewable energy, biogas, water and wastewater

About UiS

University of Stavanger (UiS) is involved in robotics through dedicated research labs, academic programs, and industry partnerships, particularly within the Faculty of Science and Technology



Robotics domain

Operates a drone lab and a robot lab with three manipulator robots from ABB, a two-tank programmed by MATLAB and Simulink, PLS-lab, electro lab.

Student groups related to robotics

- UiS Subsea
- ION Racing
- UiS AeroSpace
- UiS Drillbotics

Relevant studies and research

- Stavanger AI Lab
- Master studies: Data Science, Cybernetics and Artificial Intelligence
- Bachelor studies: Electrotechnology, Machine engineering



Relevant industries

- Offshore and on-shore oil and gas
- Industrial robotics
- Subsea
- Aerospace
- Electronics

