

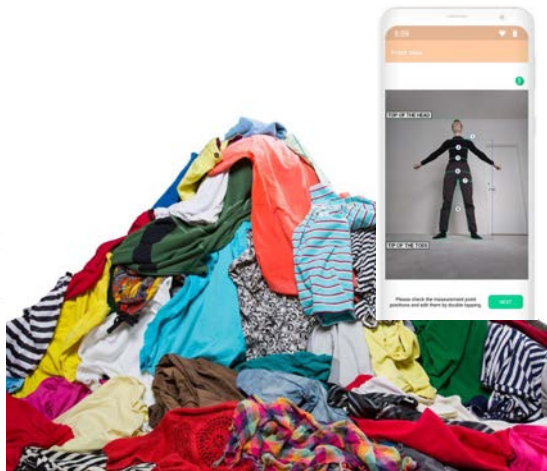
A person in a blue suit is holding a tablet displaying industrial data. In the background, a robotic arm is welding a metal part, creating sparks. The scene is set in a factory or industrial environment.

ROBOCOAST

DIGITAL INNOVATION HUB SINCE 2017

Robocoast EDIH services have been created based on actual needs and long-term cooperation with the manufacturing industry with excellent results. Robocoast has been Digital Innovation HUB since 2017.

Textile waste challenge



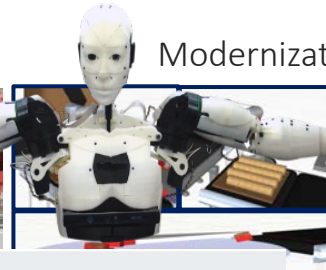
Coal Wagon Cleaning robot - challenge



TOMATO PACKING CHALLENGE



Sign Language Tutoring Robot



Modernization plan for the bakery



Testing Moto tiles



Exoskeleton Living Lab testing

ROBOCOAST EDIH

WHO

The consortium of 15 universities and seven business development & RDI organizations is probably the geographically most extensive EDIH in Finland.

WHAT

ROBOCOAST, as an EDIH, aims for ambitious operational efficiency to support the digital maturation of SMEs in manufacturing industries as well as help them to access business and finance opportunities. Moreover, ROBOCOAST EDIH is looking forward to intensifying collaboration in its wide networks locally, nationally, and in Europe to accelerate green growth and digital transition.

WHY

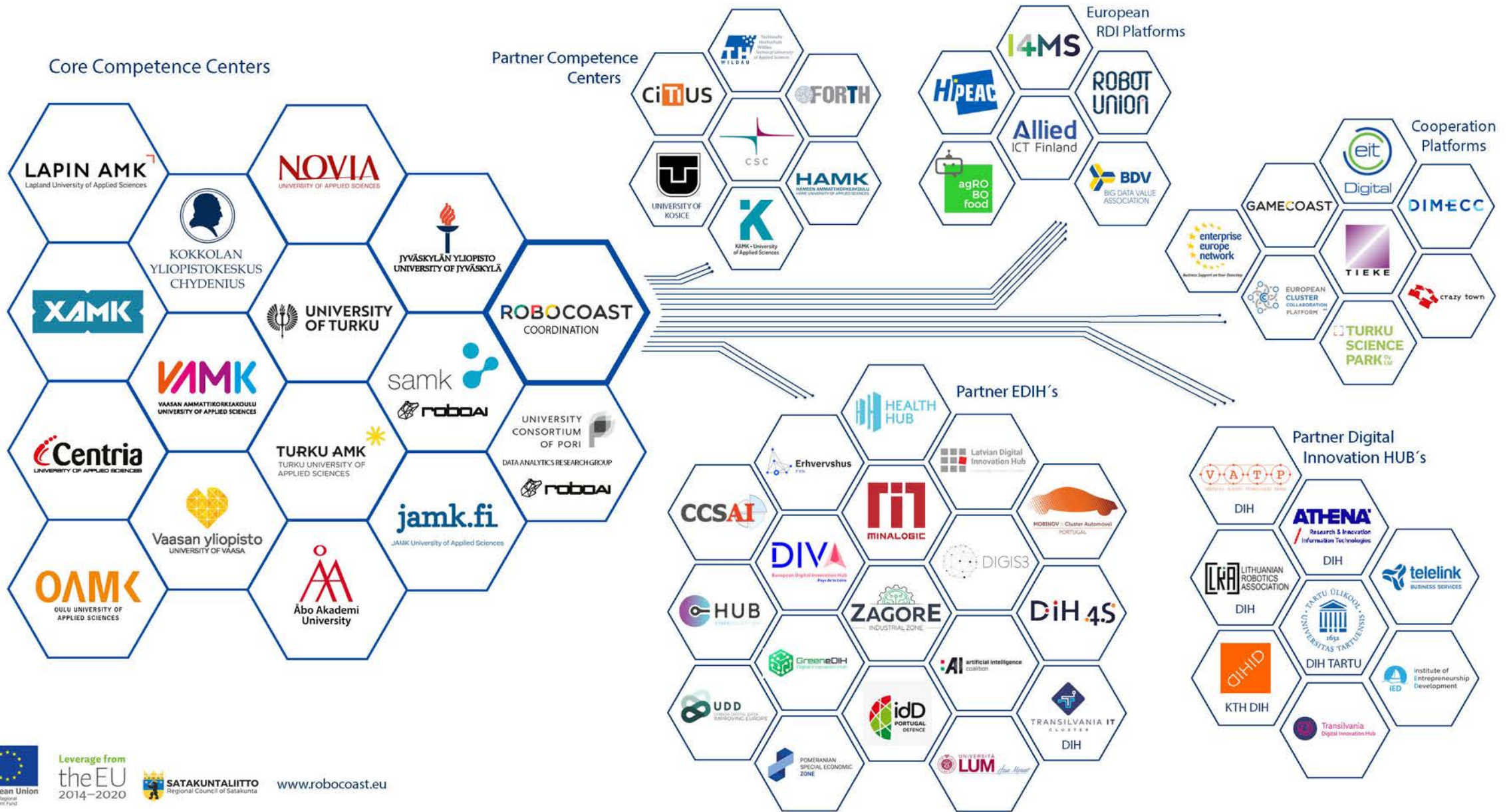
Creating more competitiveness and supporting the green growth of manufacturing SMEs by using digital technologies is essential for Finland and Europe. Robocoast DIH has solid digital expertise, especially in cybersecurity and large expert networks, and long experience in hands-on work as Digital Innovation Hub.

HOW

Robocoast EDIH's CC partners offer more than 30 world-class labs and testing facilities across different technologies and the Finnish territory. EDIH builds more synergies between those facilities and packages the customer journey to digital transformation using various facilities and expertise. Robocoast EDIH act as gateway "one-stop-shop" for customer's (SMEs) access to all services and universities' facilities.

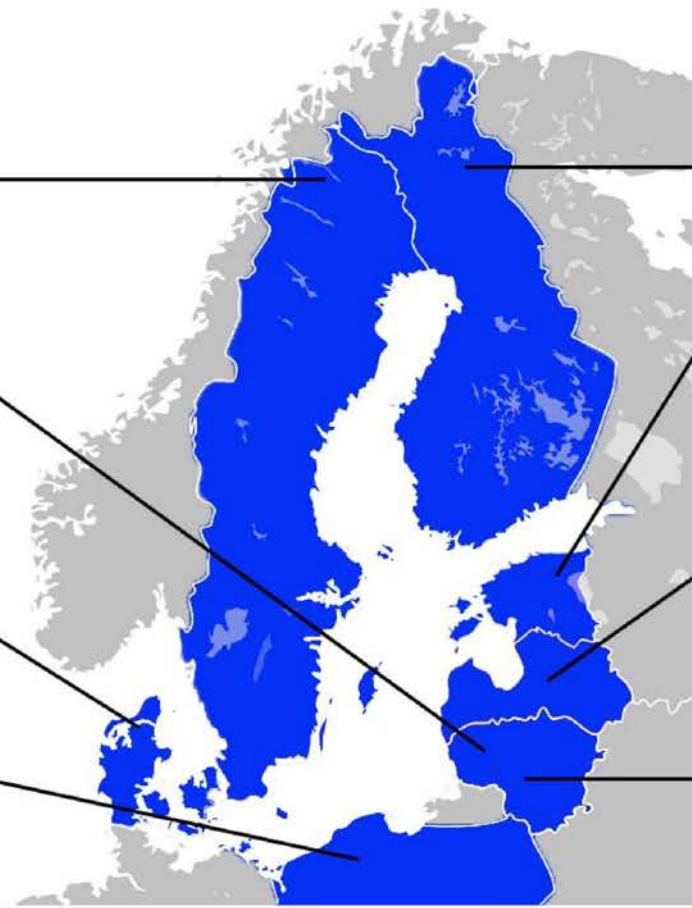


COMPETENCE CENTERS AND NETWORKS OF **ROBOCOAST**



ALLIANCE OF BALTIC SEA REGION EDIHS FOR MANUFACTURING SME SUPPORT

MIGHTY
Mid Sweden Industry and GovTech EDIH



ROBOCOAST™



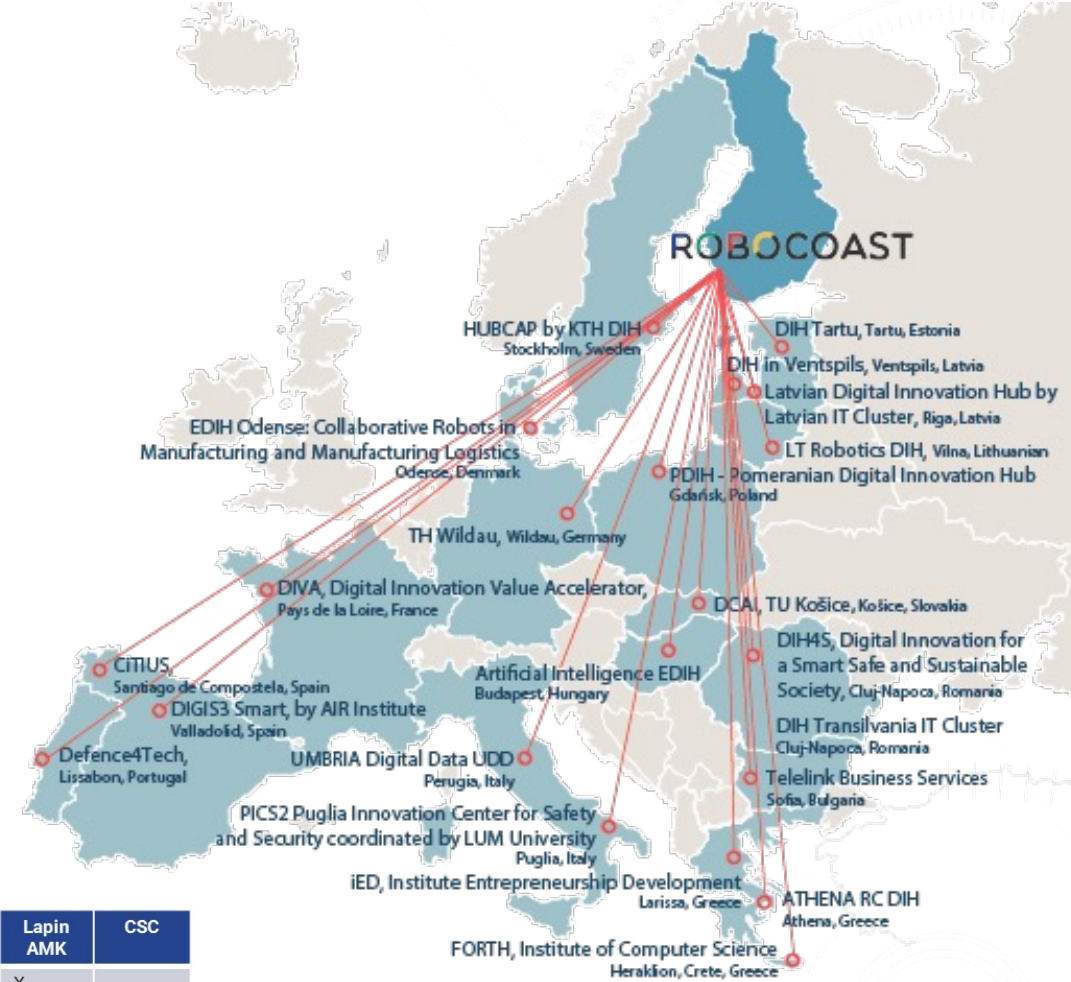


COMPANY CLUSTERS / NETWORKS:

- Robocoast company cluster (Satakunta), around 100 companies
- FISC (cyber security), around 80 companies
- European ICT Alliance, around 300 companies
- Energy Vaasa cluster, around 140 companies
- Finnish maritime industry cluster in Turku, around 400 companies

Robocoast EDIH has high-level expertise in Cybersecurity and know-how to support companies to apply new digital technologies (AI, Robotics, IoT, 5G and HPC) for developing processes, products, and services.

Robocoast EDIH consists of more than 30 RDI laboratories and testbed environments.



Based on professionalism, testing, and R&D resources of cybersecurity, **The Finnish Information Security Cluster (FISC) strongly recommends the Robocoast EDIH.** FISC is an organization established by major Finnish information security companies, and it has nearly 80 members. Robocoast EDIH will be one of the leading centers of cybersecurity in the Digital Europe Program.

	TURKU AMK	NOVIA	TY	SAMK	ÅA	VAMK	VY	Centria	UC Kokkola	OAMK	JAMK	JY	XAMK	UC Pori	TScP	Lapin AMK	CSC
Artificial Intelligence	X	X	X	X	X					X		X		X	X	X	
Robotics & Industry 4.0	X	X	X	X	X	X		X	X	X				X		X	
Sustainability manufacturing	X	X	X		X	X		X	X	X						X	
Cyber Security	X		X				X	X	X		X	X	X				
HPC												X					X

The Service Model of Robocoast



Manufacturing Industry

Skills and Training needs
Networking needs
Funding needs
Digitalisation needs

Key Technology Competencies

Cybersecurity technologies

AI Internet of Things 5G
Robotics HPC

Energy Technology

ROBOCOAST

Robocoast Experts

ROBOCOAST EDIH has
6 full-time (100%) and
9 part-time (50%)
ROBOCOAST experts
who operate close to the
manufacturing industry
in the regions.

Services (basic)

- POCs and other R&D Services
- Digital Review
- Robocoast Academy (thesis, student works)
- Living lab Testing (test labs)
- Robocoast Challenges (hackathons)
- Independent scanning: experts, funding etc.
- Free customized online trainings (Robocoast EduFlcation)
- Demodays of new digital technologies
- Webinars & Matchmaking events
- Assessment of CyberSecurity level in a company

Robocoast always uses its networks to find right experts !

Universities:



Cluster Companies:



Networking & Collaboration:



The Customer Journey of Robocoast Services

VOICE OF CUSTOMER

This is an alternative point of entry for companies but once they tested Robocoast EDIH services they will experience our services which maximizes efficiency with companies' needs and companies will engage and appreciate our services based on maintaining a human Robocoast experts touch in nine region areas.

Networking and Ecosystem services

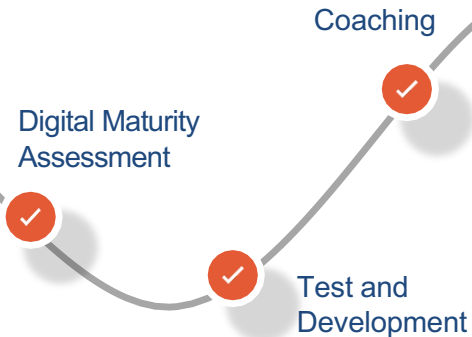
Networking, Service Advice, Knowledge sharing and best practices



- Service advice
- Open webinars, seminars and info session
- Matchmaking services and events, networking

Test and Development service

Test and develop



- In this crucial phase, the company is accompanied through 1. an initial feasibility assessment of identified technologies, 2. The company have two choice test for their new technology if that is enough ready and mature if not then we offer development services. 3. Development services help companies to develop their technology maturity, 4. After the technology is enough maturity, companies use facilities to test selected technologies in our 9 region areas or some testing happens in net, 5. PoC and implementations.

Skills and Training services

Skills and Training

Skills and training, online courses

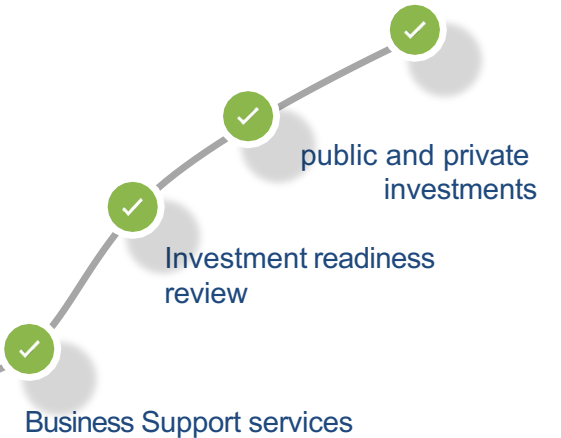
Expert radar

Consulting

- Online courses via Robocoast eduFlication
- Open webinars and training
- Company specific training
- Ad-hoc services like carbon footprint calculation

Business and Funding services

Support to find Business and Funding



- Investment readiness review,
- Mapping of funding needs,
- Business model analysis, business parring, search for partners for PPP,
- Public funding landscaping and private investment search

ROBOCOAST CASE EXAMPLES

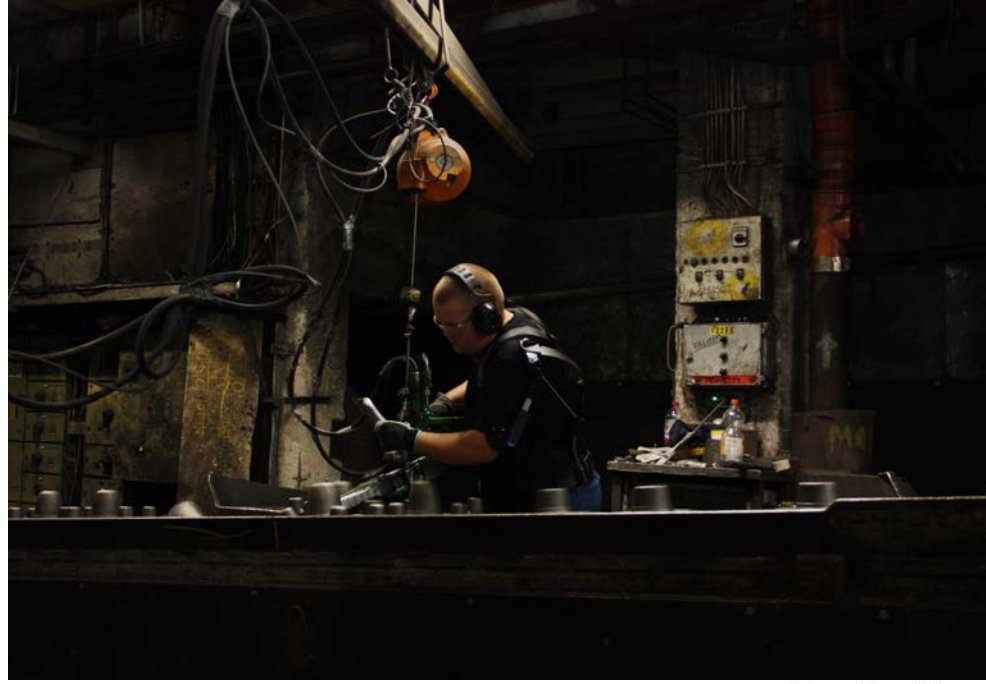




THE ROBOCOAST CHALLENGE COMPETITION

- **Robocoast organized a challenge competition for SME's early 2020. The goal was to find an innovative solution to clean a coal wagon of remnants of, sometimes frozen, coal.**
- This was not an easy challenge. The cleaning needs to be carried away quickly and for up to 300 wagons per day.
- There is not an off-the-shelf solution available. But now the situation will change.
- Thanks to the Robocoast challenge competition, a coal transit operator at Tahkoluoto harbour at Port of Pori, Adolf Lahti Ltd, found a business partner to create the innovative cleaning system from Enmact Ltd.

Case: Exoskeleton Living Lab test with three different companies - DEMODAY



AI ROUNDTABLE

- The AI Roundtable is a co-development forum by boosts experts, companies, and researchers to convey information about industry-specific best practices, practical conditions, progress models and challenges, as well as existing opportunities with AI for SMEs.
- The AI Tools project aims is to develop an AI Roundtable co-development service concept consisting of AI Roundtable events, an AI Roundtable co-development forum on the SLACK platform, and an AI Roundtable Continuous learning model. The goal is to increase networking opportunities for AI Roundtable co-development through events, a discussion forum, and the Robocoast EduFlication platform.

AIBA the right way for companies if

- > The idea exists but do not know if it is possible and how to solve it with AI
- > If you are curious if the data you have is enough for your AI idea
- > You want help with choosing the right AI technology
- > You want to develop a project plan so that it is easier to ask tech companies for offers or search for grants / investments
- > You are interested and want to stay in tune regarding digitalization



Energy supply logistics/AI/5G/IoT

AI in Logistics/Energy supply

- ▶ Operation center
- ▶ Call center
- ▶ Robotization of decision chain: from call to trip
- ▶ Advanced VoIP (40 000 calls/h);
- ▶ AI in Energy supply
- ▶ Dedicated systems for managing the power limitation process;
- ▶ Data/algorithms/decisions

- A challenge for new Business logics for AI-BD**
High failure rates of AI-BD projects suggest the need for new methods for impact assessment
- The weight of Hidden Value**
The definition of «success» in AI-BD projects depend on the Observer's view, who looks at what it chooses
- AI and BD in Business**
They represent a new resource for Business Intelligence, with potential unexplored effects

Conclusion and future work

The rapid evolution of AI-BD requires a dynamic and adaptive management strategy, to **exploit** Value and to **explore** new dimensions

Ad hoc probes, i.e. measurement and assessment methods that capture signals, pave the way for suited tools, semi-automated solutions and DSS to detect hidden value, or emerging value dimensions

ARTIFICIAL INTELLIGENCE IN LOGISTIC

AUTOMATIC SITE INSPECTION

Autonomous unit equipped with a properly selected sensor configuration (lidar, radar, IR camera, thermal imaging camera, PTZ camera)

- **Main tasks**
 - ✓ Independent patrolling of the area along predefined routes
 - ✓ Inspection of areas indicated by port services
 - ✓ Object / people detection
- **Property protection and protection against attacks**
 - ✓ Detection of intruders and fence breaches / damages
 - ✓ Support for protection aimed at reducing theft
 - ✓ Detection of anomalies (e.g. elements left behind)
 - ✓ Detection of radio attacks aimed at deliberately jamming IoT systems and radio interference
- **Cooperation with emergency services**
 - ✓ Detection of objects / people in a dusty / smoky environment

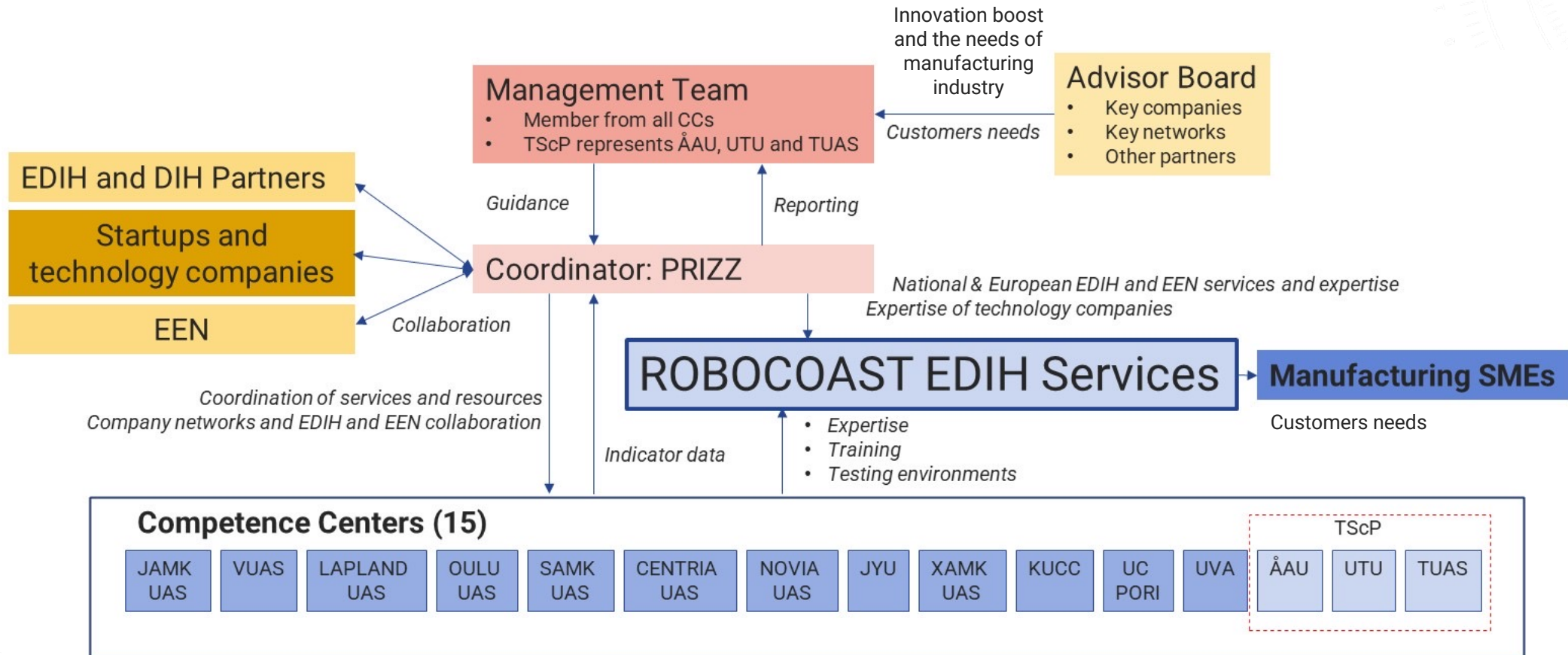


EVALUATION OF SERVICE

OLD WAY

NEW WAY

THE OPERATION MODEL OF ROBOCOAST EDIH



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THANK YOU FOR YOUR ATTENTION!

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