



EUCloudEdgeIoT.eu

MARKET INSIGHTS

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5 September 2024

CLOUD-EDGE-IOT MARKET AND ADOPTION

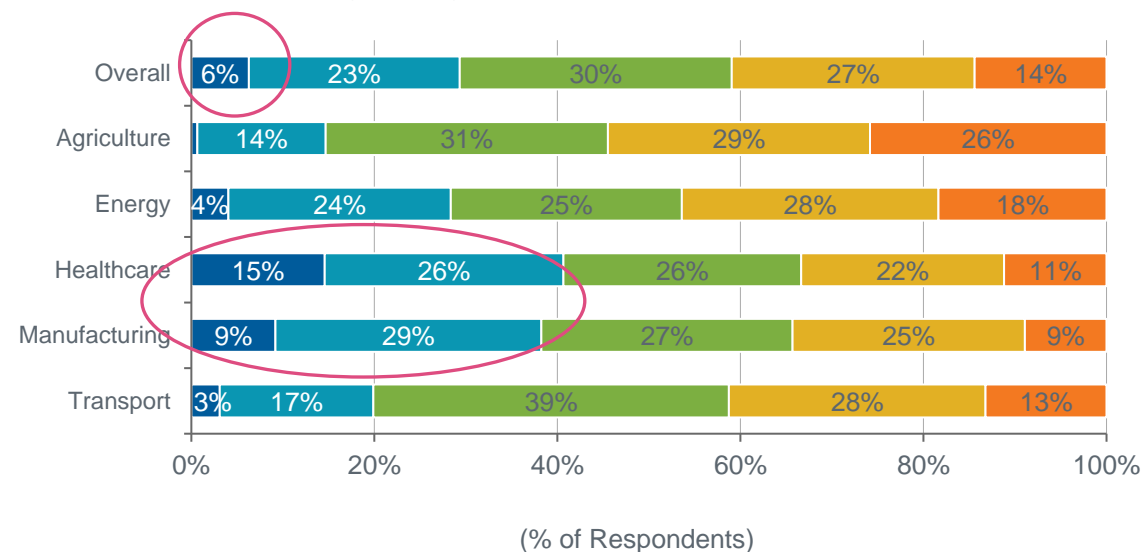


European Cloud, Edge and IoT Markets

Cloud	Edge	IoT
Spending in 2022 EUR 109.6 bn	Spending in 2022 EUR 33.5 bn	Spending in 2022 EUR 172.3 bn
CAGR to 2026 20.8%	CAGR to 2026 14.1%	CAGR to 2026 10.8%

European Cloud, Edge and IoT Market Size (Source: IDC Spending Guides and Trackers, May 2023)

Edge Usage and Plans by Industry



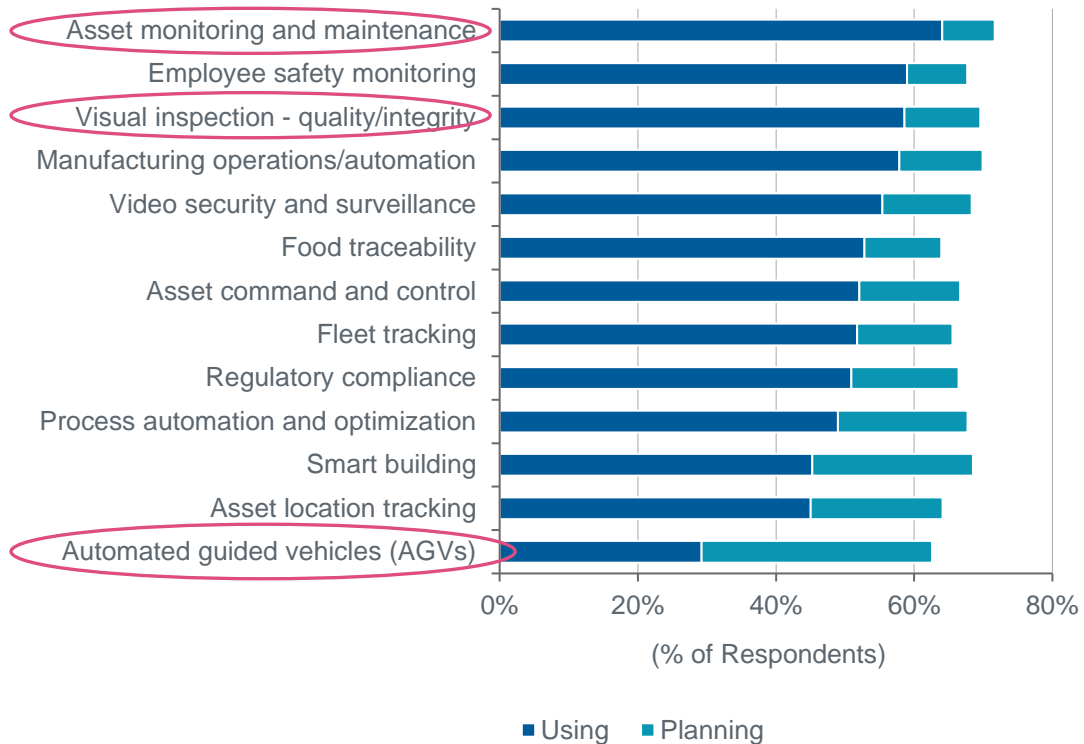
- Already using extensively
- Already using to a limited extent
- Plan to start using in the next 24 months
- Educational/awareness/research phase only
- Not using and no plans

Source: IDC UNLOCK-CEI Survey March 2023

STRONG INTEREST ACROSS USE CASES




Manufacturing Use Cases




Manufacturing Use Case Adoption (Source: UNLOCK-CEI Survey, March 2023)

Spotlight Use Cases




Agriculture

- Asset tracking/monitoring (e.g. animal tagging)
- Equipment automation
- Precision agriculture




Energy (Utilities, Oil and Gas)

- Smart grid
- Drone-based observation
- EV chargers




Healthcare

- Hospital asset tracking
- Bedside telemetry
- AI-assisted diagnosis and treatment



Manufacturing

- Asset monitoring and maintenance
- Autonomously guided vehicles (AGVs) and robots
- Visual inspection and quality control



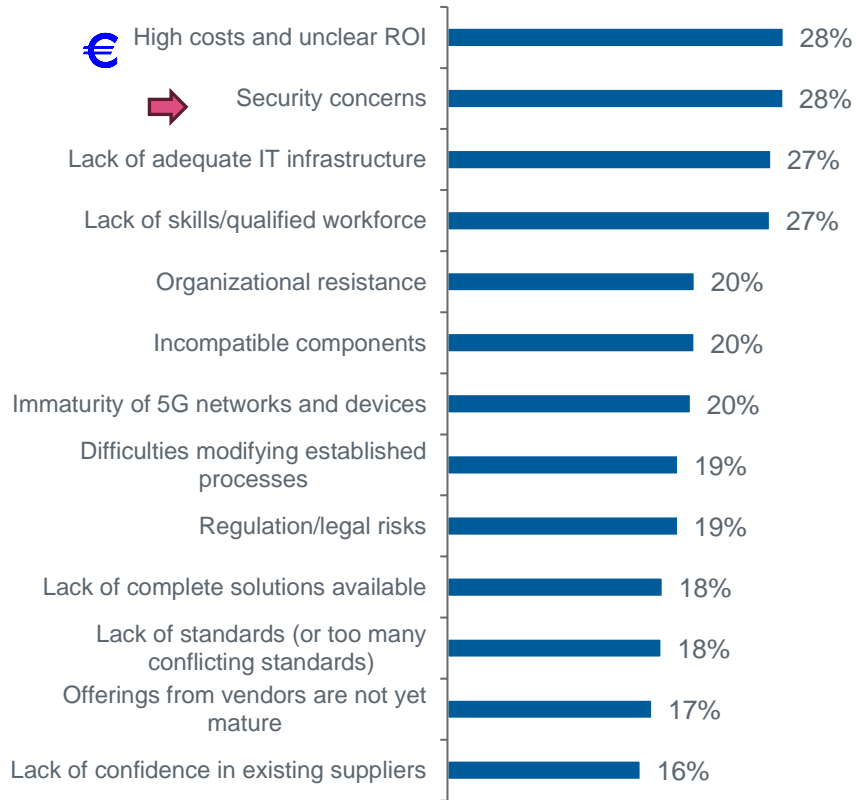
Transportation

- Port and warehouse automation
- Fleet tracking and freight monitoring
- Autonomous vehicles and infrastructure

MANY CHALLENGES HOLD BACK CEI

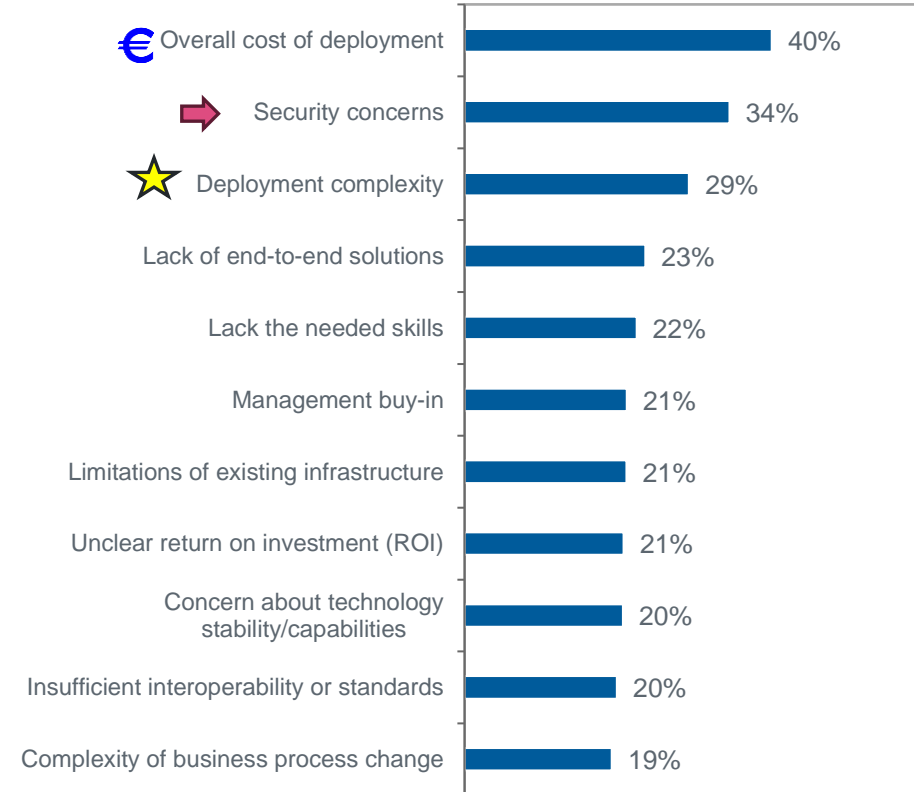


Edge Challenges



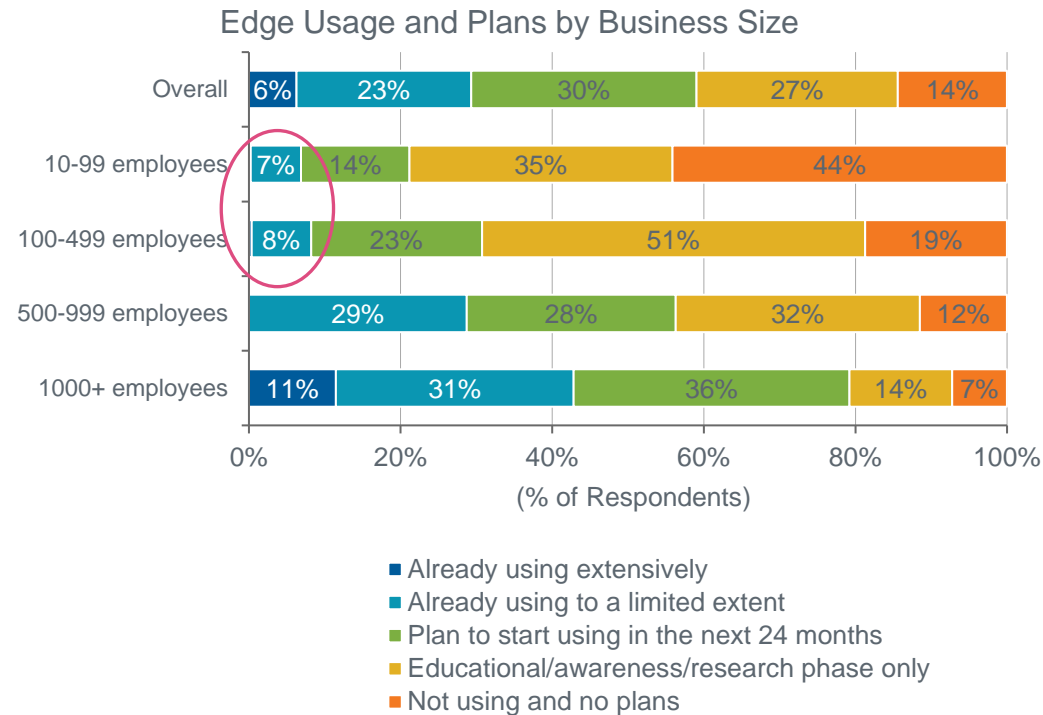
Edge Challenges (Source: UNLOCK-CEI Survey, March 2023)

IoT Challenges



Challenges Holding Back IoT (Source: UNLOCK-CEI Survey, March 2023)

CEI COMPLEXITY PUTS SOLUTIONS OUT OF REACH OF SMALLER COMPANIES



A Need for Simplicity

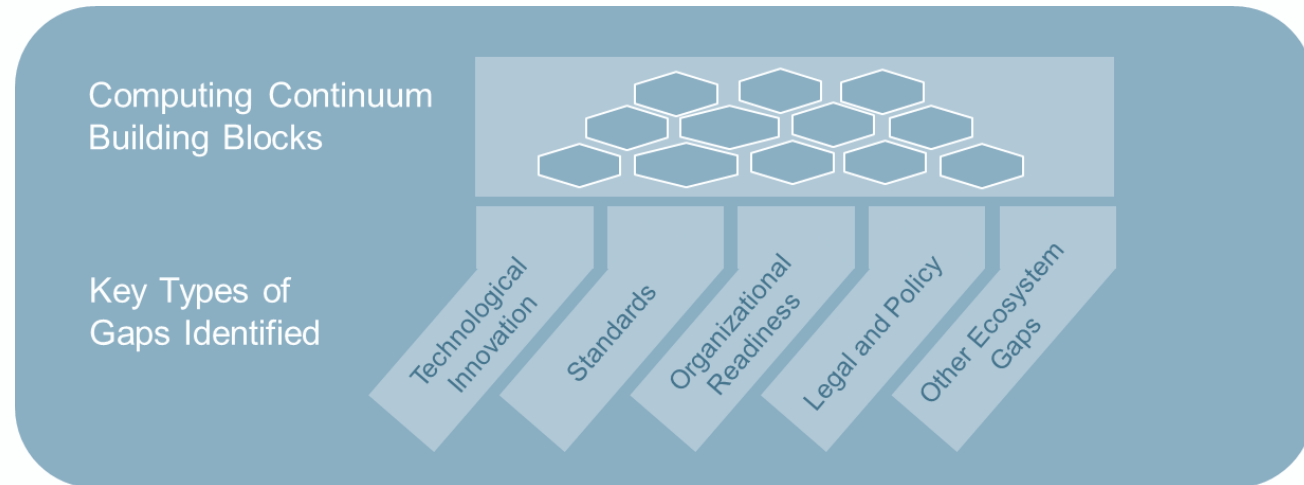
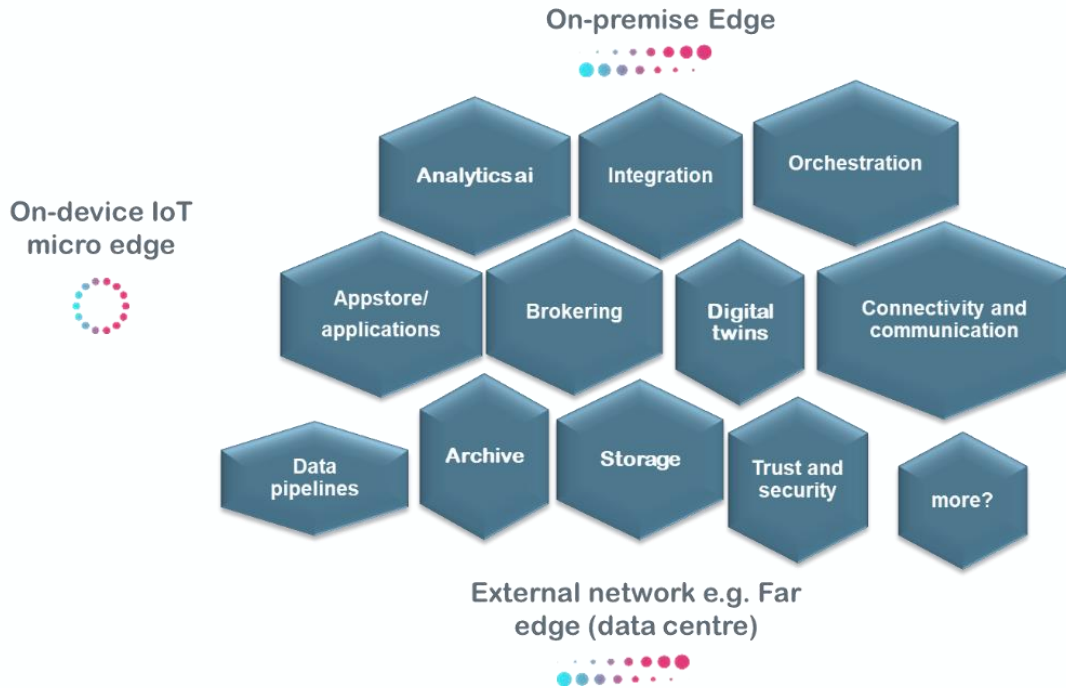
- **Edge adoption is modest**, especially among smaller companies
 - Projects are still far **too complex** (one of the top barriers to IoT in the survey)
 - That complexity requires extensive skills and funding, and often requires expensive consultants and solution developers.
 - The labor-intensive nature makes costs very high.
 - High costs makes the continuum off-limits to smaller companies.

Edge Usage and Plans by Business Size (Source: UNLOCK-CEI Survey, March 2023)

WHERE ARE THE GAPS?



Computing Continuum Building Blocks



Source: Unlock-CEI, VDI/VDE IT, Intermediate Results: evolving value chains and market dynamics in the computing continuum, December 2023

Source: Unlock-CEI (D1.3)

KEY GAPS

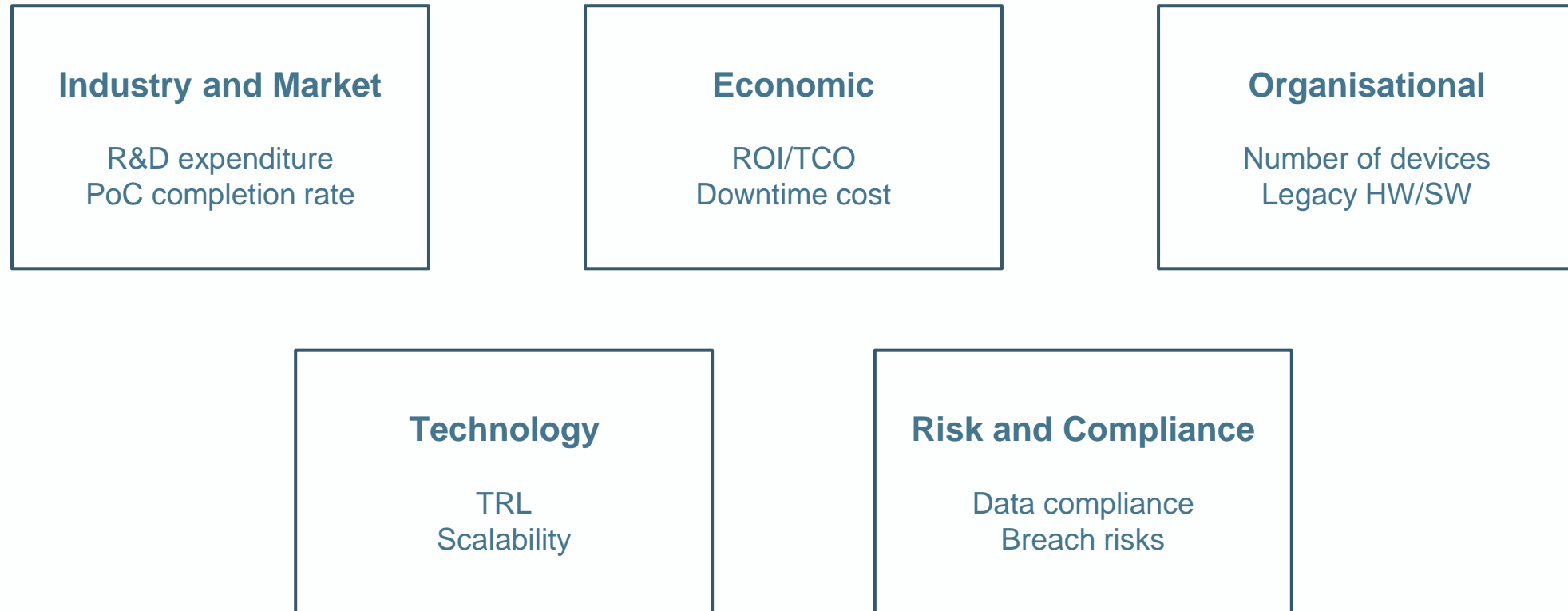


- **Edge orchestration tool:** There is a need for **enhancement in terms of interoperability, security** and automation for effective management of distributed solutions.
- **Edge standards :** needs for **simplification and harmonization** of edge standards
- **Connectivity and 5G networks:** Public 5G network coverage remains incomplete, and **advanced 5G services are slow to arrive.**
- **Skills:** There is a need for **upskilling and reskilling** in terms of CEI technologies and in relations with complementary technologies such as AI.
- **Industry-specific use-cases:** Because the continuum is fragmented across hundreds of use cases, much work is needed to enable European organizations to **leverage these technologies for their unique purposes.**
- **Commercialization and scale:** European companies will need to **scale aggressively** in a fiercely competitive global market through large scale industry policy.
- **Concrete business cases:** Companies need justified business cases to adopt edge and **ROI is yet unclear.**

DEVELOPMENT OF THE CEI-LING TOOL



- The aim of the tool is to support organisations adopting CEI solutions to understand their readiness in different aspects, and how to improve on their result
- Based on the CEI-LING framework hierarchies, we work with the demand-side to understand the readiness to adopt CEI-Technologies and the impact on use case GTM



TOOL VISUALIZATION



Try for yourselves!

Navigate across categories – only the first screen is compulsory

CEI-LING Tool

Welcome to the CEI-LING Tool! This tool is designed to help your organisation measure its readiness for Cloud-Edge-IoT solutions and provide detailed, actionable suggestions. Simply answer a few questions to get started. The questions refer to various strategic aspects ranging from organisational to technical and compliance-related topics. The questionnaire takes approximately 5-10 minutes to be completed. Let's begin!

First Name

Last Name

Email

Company

Which EU-funded project do you represent?

Please indicate the name of the CEI use case you are most interested in

Sector

[Use Tool](#)

Differentiate consortium partners from external stakeholders

Download results and iterate to gain deeper insight into CEI adoption strategies

RESULTS OVERVIEW



- The recommendations are given based solely on the input, there is no comparison between entries to the tool from separate parties.
- Sectors represented in the responses:
 - Agriculture
 - Transportation
 - Energy
 - Manufacturing
- Improvements performed over first iteration:
 - Added field for Use Case/Project of interest
 - Grade per category kept in the report



The screenshot shows a report titled "CEI-LING Tool Report" from EU Cloud Edge IoT. It identifies the user as "BluSpecs" and the use case as "Windmill maintenance". The report states that the user's CEI market readiness score is 3 out of 5. It provides detailed feedback for four categories: Organisational (score 3), Certification status (score 2), Real-time data analytics capabilities (score 4), and Integration with legacy data (score 3). Each category includes specific recommendations for improvement.


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CEI-LING Tool Report

Your company: BluSpecs

CEI Use Case: Windmill maintenance

EU-funded project: NA

Thanks for using our tool! Based on the answers received, your CEI market readiness score is 3 out of 5. Please be aware that this score does not reflect any judgment on your performances nor provides comparison with other players. It is solely intended to help evaluate your overall readiness. Detailed scores related to different aspects of your company, along with tailored recommendations to improve your readiness level, are provided below.

 **Organisational**

Time to deploy new computing nodes (Your score: 3):
Streamline deployment processes based on insights from initial tests and set clear logistics for full-scale implementation. Enhance cross-departmental coordination to ensure all necessary support is available for deployment. Begin tracking deployment efficiency metrics to set benchmarks and identify areas for further optimisation.

Certification status (Your score: 2):
Engage with CEI certification agencies. Create a certification roadmap. Set certification priorities.

Real-time data analytics capabilities (Your score: 4):
Complete the integration of real-time analytics into the organisational workflow, ensuring that insights are accessible to decision-makers across the company. Establish protocols for the use and management of real-time analytics to maintain data quality and relevance. Encourage teams to leverage analytics insights for proactive and informed decision-making.

Integration with legacy data (Your score: 3):
Expand data aggregation efforts to encompass a wider array of legacy systems, applying standardised procedures for efficiency. Utilise interim aggregated data to support early-stage CEI solutions, demonstrating quick wins and benefits. Implement a continuous feedback loop to refine the aggregation process and data usage.

Example of the downloadable report

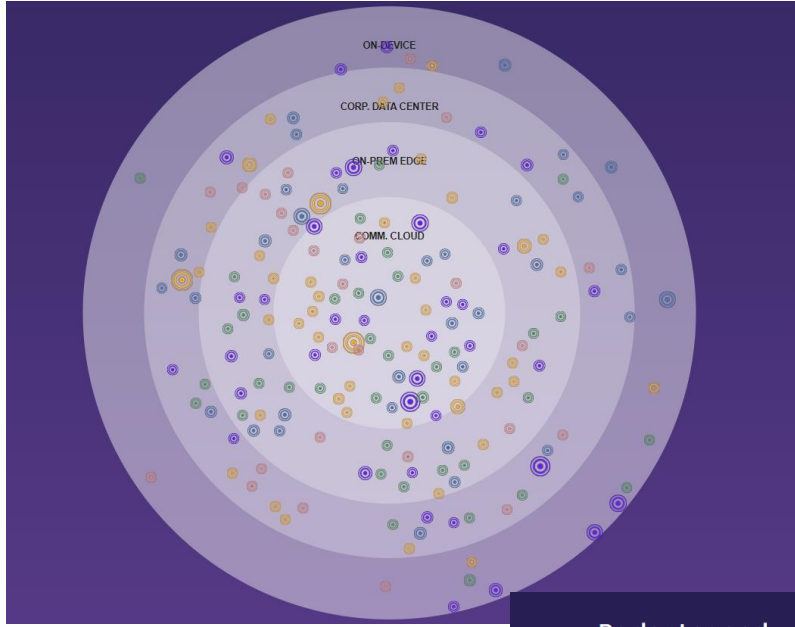
ANALYSIS OF RESULTS ON META OS PROJECTS



- First analyses on the CEI-LING tool helped understand the readiness of the companies within the MetaOS cluster for CEI adoption, totalling:
 - 53 people from 48 organisations used the CEI-LING tool
 - The average score was 2.8/5
- The results, together with the outcomes of the workshops supported the selection of success stories for the use cases, which will be presented during the UNLOCK final event



CEI DEMAND REPORTS & TOOLS



Demand use-case radar is a dynamic platform, developed by the UNLOCK-CEI CSA to visualise the diverse landscape of CEI computing continuum, through mapping **more than 70 CEI use-cases** across **five sectors** as a results of use-case level market analysis in the project.

Radar Legend	Data Collection	Radar Rings
<ul style="list-style-type: none">AgricultureEnergyHealthcareManufacturingTransport	<p>Volume: High Medium Low</p> <p>Frequency: High Medium Low</p> <p>Bandwidth: High Medium Low</p>	<ul style="list-style-type: none">Commercial CloudOn Premises Edge GatewayCorporate Data CentreOn Device

<https://eucloudedgeiot.eu/>

JOIN UNLOCK-CEI FINAL EVENT



The poster features a dark blue background with abstract, glowing blue and purple patterns resembling data streams or neural networks. At the top left, the EU Cloud Edge IoT logo and website URL are displayed. The main text is in a bold, pink font, and the date and time are in a white font on a dark blue background. A red button with white text is at the bottom left.

EU Cloud Edge IoT EUCloudEdgeIoT.eu

Towards deployment of Cloud-Edge-IoT solutions across the computing continuum

From Market pathways to Large scale pilots

23 Sep 2024
14:00 – 19:30 CEST

AREA 42
RUE DES PALAIS 46,
B-1030 BRUSSELS

SAVE THE DATE!

[Register Here!](#)



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THANK YOU!

For any questions or comments:

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