

Enterprise IoT: Closing the automation and AI capability gap to solve real business problems

STL Partners & Volt Active Data: Edge IoT webinar 4

12th March 2024

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WEBINAR

Enterprise IoT: Closing the automation and AI capability gap to solve real business problems



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Vice President of
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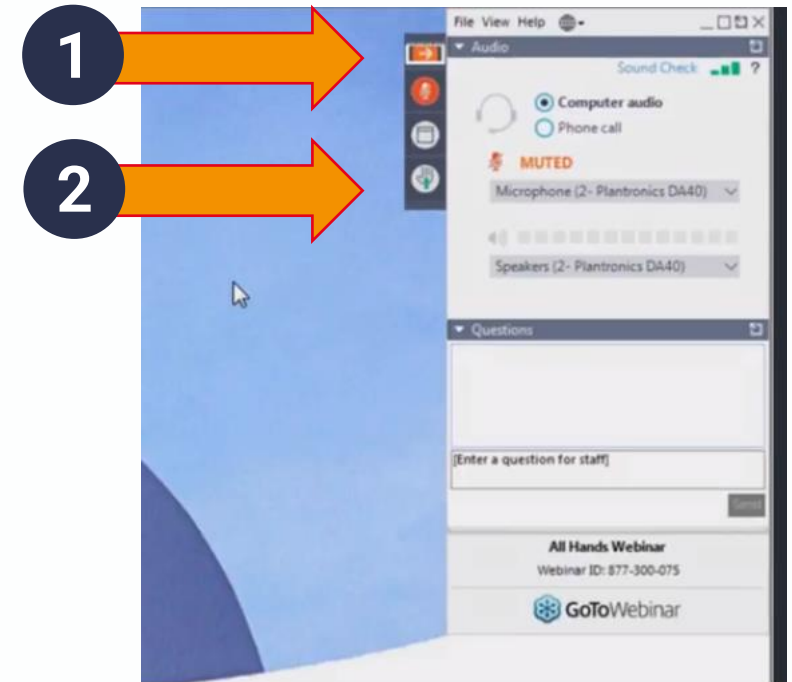
Lumen Technologies



Tuesday 12th March – 4PM GMT | 12PM EST | 9AM PST

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- We'll send you the slides and a recording shortly after the session - do share with colleagues
- On Twitter? Tweet us @STLPartners #STLthinks



STL Partners and Volt Active Data collaborated on a research program focused on edge and IoT



Edge IoT platforms – verticals & use cases enabling growth

February 2023



Is there such a thing as an edge IoT platform?

May 2023



How to win business in edge & IoT

October 2023



Closing the automation and AI capability gaps

March 2024



STL Partners and Volt Active Data collaborated on a research program focused on edge and IoT

STL completed an extensive primary research programme to derive a global perspective on the convergence of Edge computing and IoT



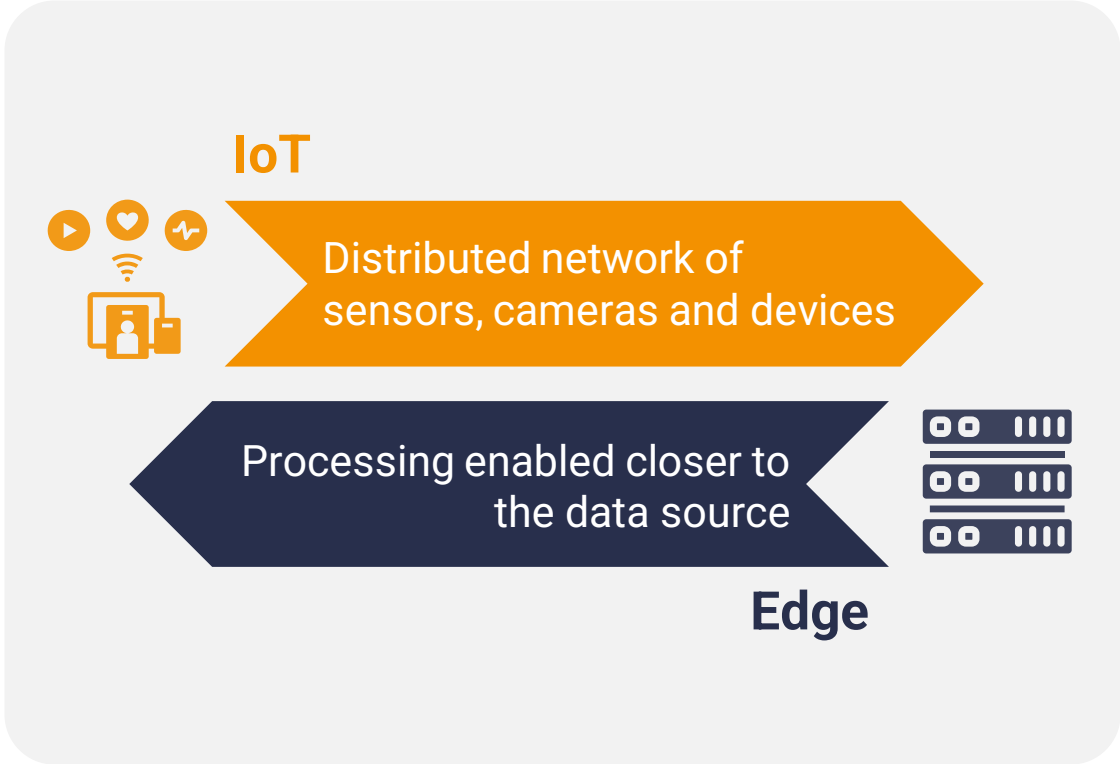
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Edge and IoT are complementary technologies that augment each other's capabilities

- Role of edge, IoT and A3
- Commercial outcomes
- Key considerations
- Role of partnerships
- Key takeaways

The intersection of edge and IoT can augment data collection, transfer and analysis to enable low latency and real-time applications.



66 There is approximately 10-20% customer growth per year use edge IoT platform
- Founder and CEO, Edge and/or IoT platform provider 99

66 Edge IoT platforms are essential for the effective management of complex supply chains with one or more deep learning component
- CEO, Edge Platform Provider 99

The combination of edge, IoT, and AI enhance each other's strengths and compensate for the weaknesses

Role of edge, IoT and AI

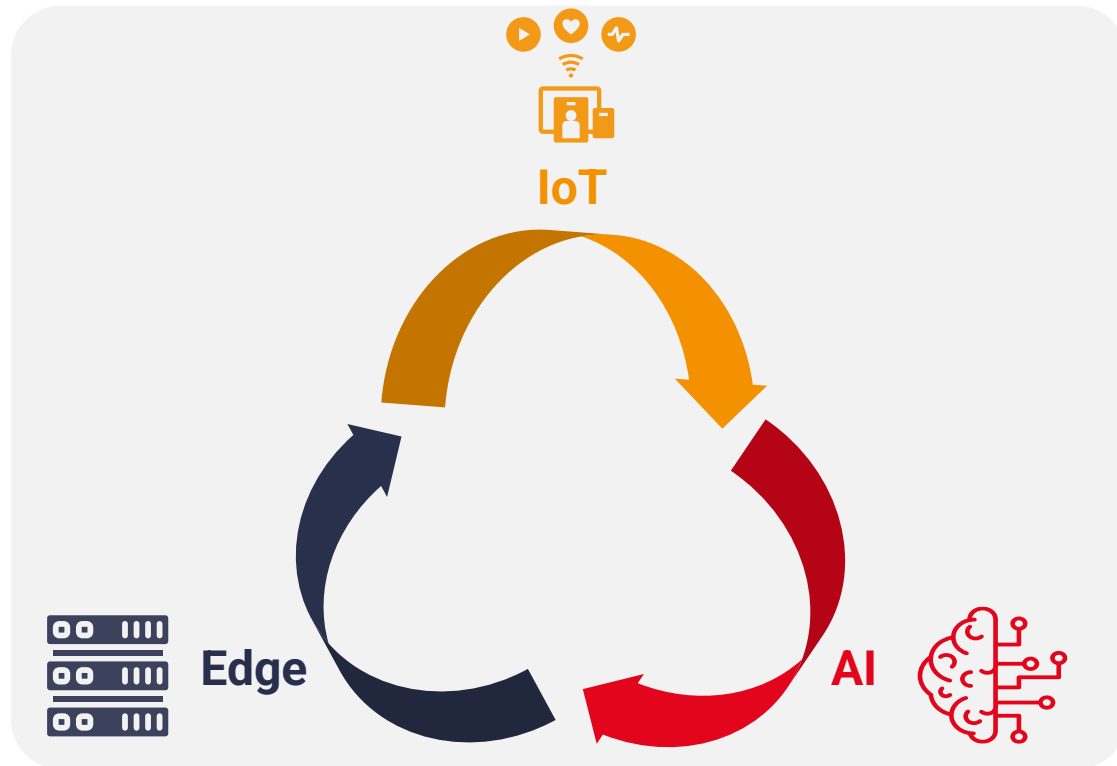
Commercial outcomes

Key considerations

Role of partnerships

Key takeaways

Enterprises are on an automation and analytics journey, making a move towards more data-driven real-time automated decision making



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AI-driven real-time inferencing is expected to accelerate edge adoption and helps automate decision making for IoT use cases. However, running AI for IoT use cases risks hindering latency due to compute demands

99

- COO & CTO, Edge IoT platform provider

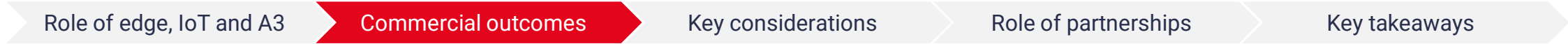
66

Chipsets are getting more capable, enabling AI to be run on less compute

99

- COO & CTO, Edge IoT platform provider

The technologies combined can address a variety of commercial problems across several industry verticals



Increase revenues
(from a B2B2X standpoint)

Drive cost savings

Augment existing solutions

- Automated real-time analysis of IoT data
- Data-driven insights to frame existing products and services more efficiently

Bandwidth efficiency

- Data localisation and triage
- Reduce data transfer requirements
- Reduce energy and data storage demands

Enable new and innovative use cases

- Automated real-time analysis of IoT data
- Data-driven product development

Operational cost savings

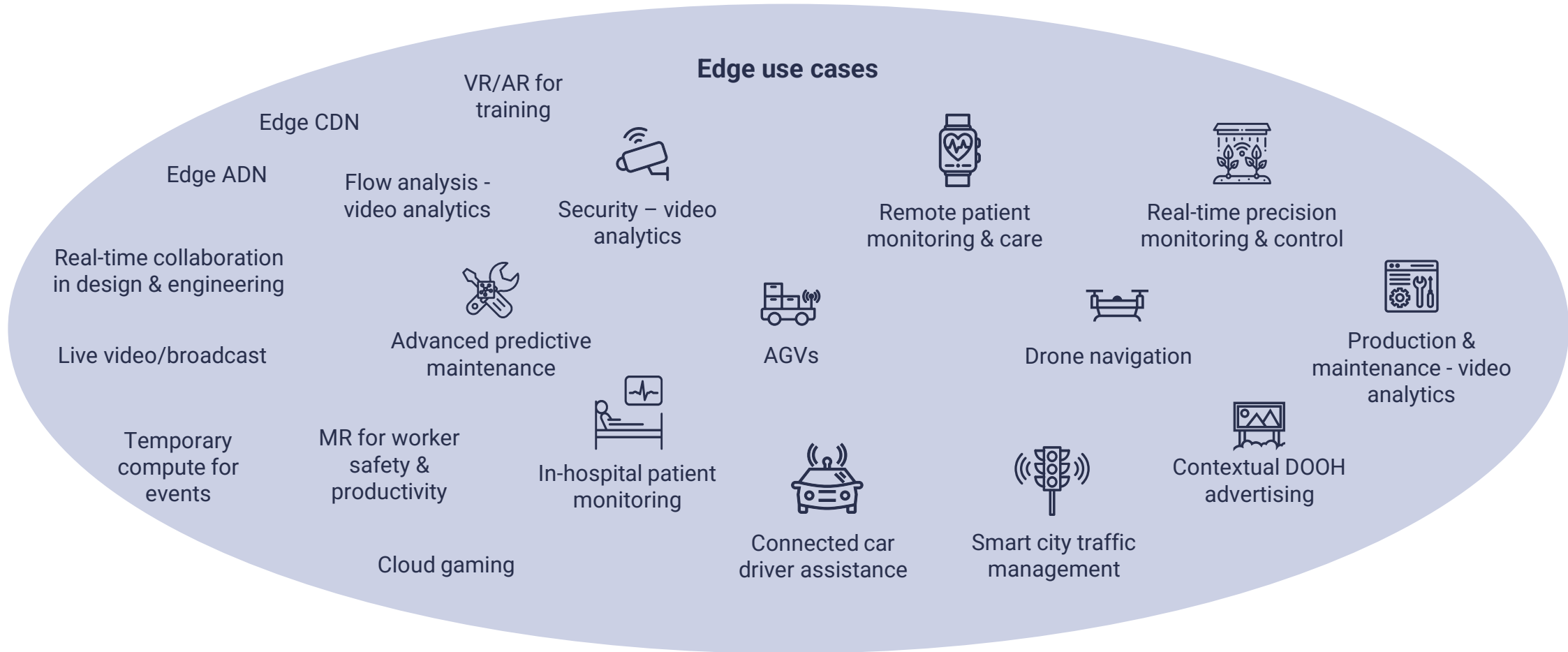
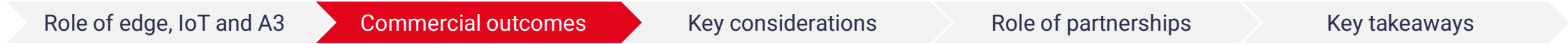
- Edge AI optimises resource usage and allocation
- Less wasted resources

66 IoT source data is as accurate as it gets, so running AI at the edge means there's no data truncation, leading to better trained models and performance 99
- Founder and CEO, Master Systems Integrator

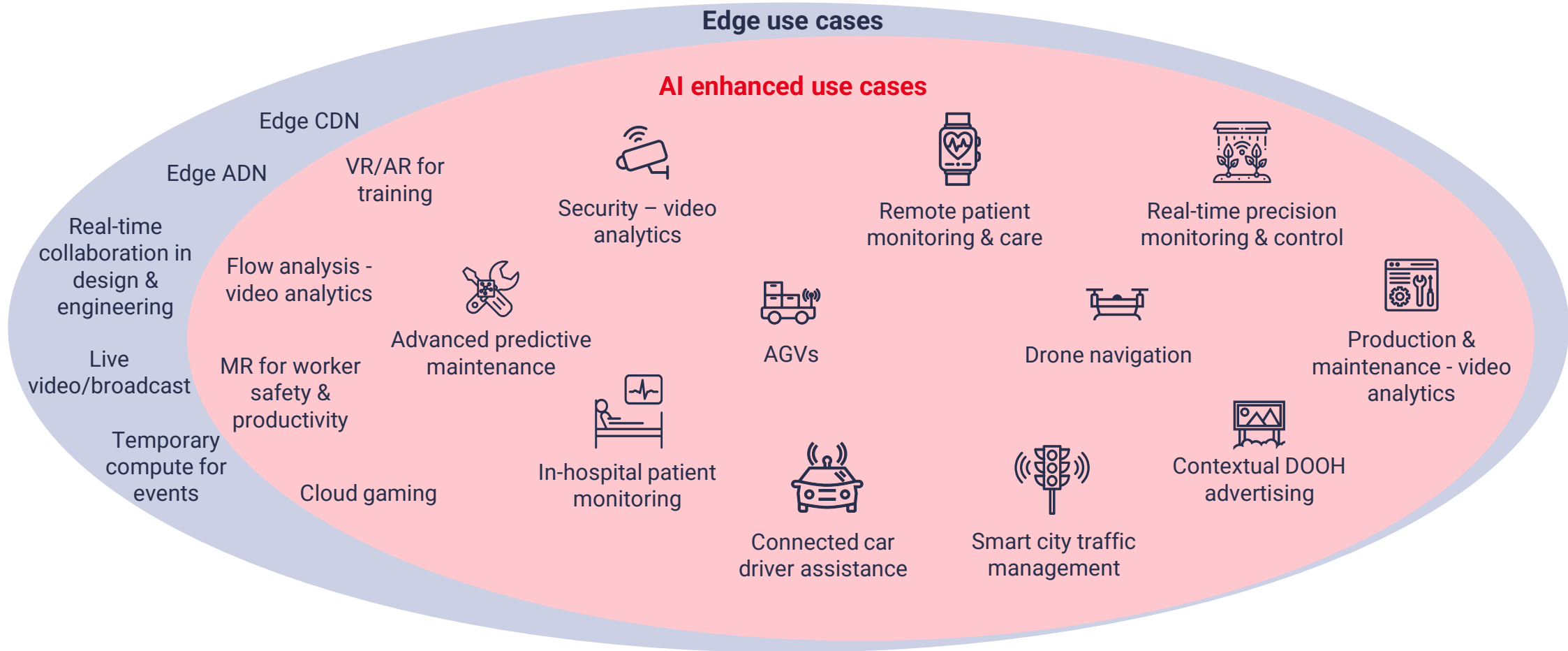
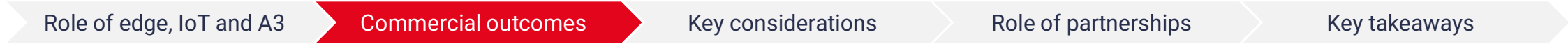
66 With AI, it enables customers to leverage and harness the data to achieve operational efficiencies and growth 99
- COO & CTO, Edge IoT Platform Provider

66 AI can process data quickly and respond faster. It has enabled one of our companies to manage 60% of incidents automatically 99
- Founder and CEO, Master Systems Integrator

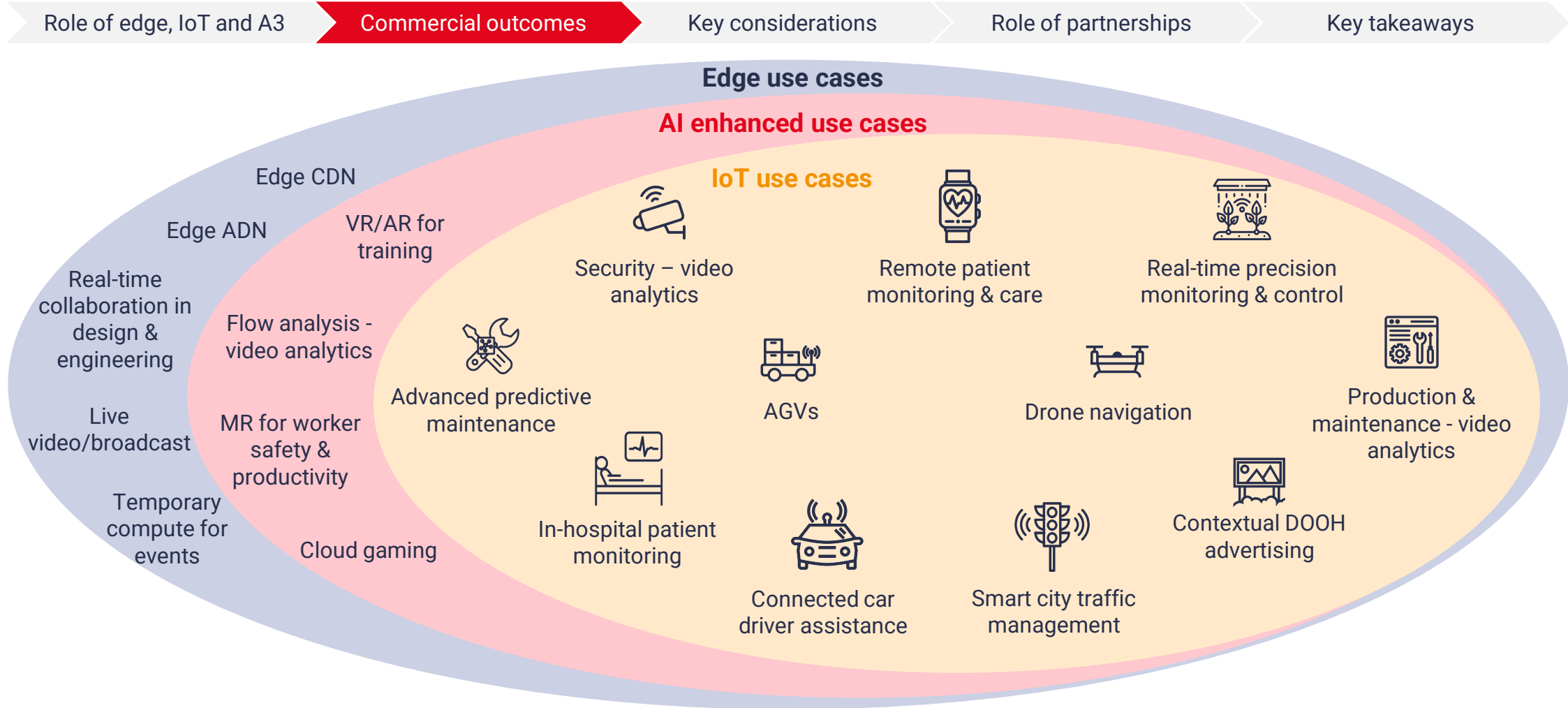
11 out of 20 edge-enabled use cases modelled in STL's edge forecast are reliant on IoT and AI



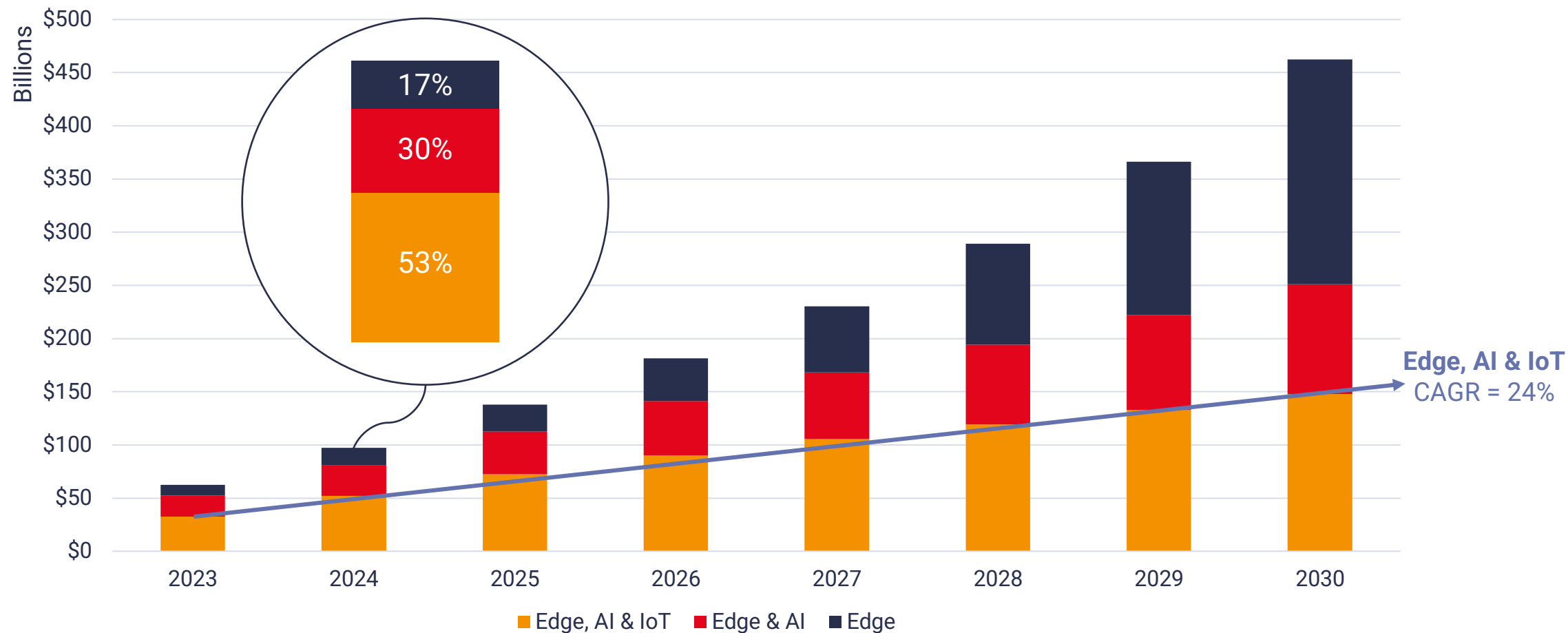
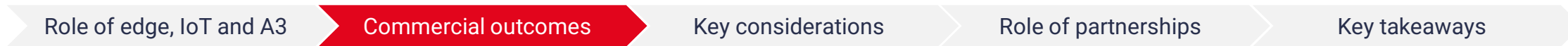
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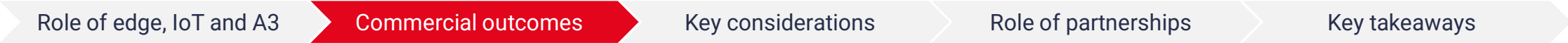
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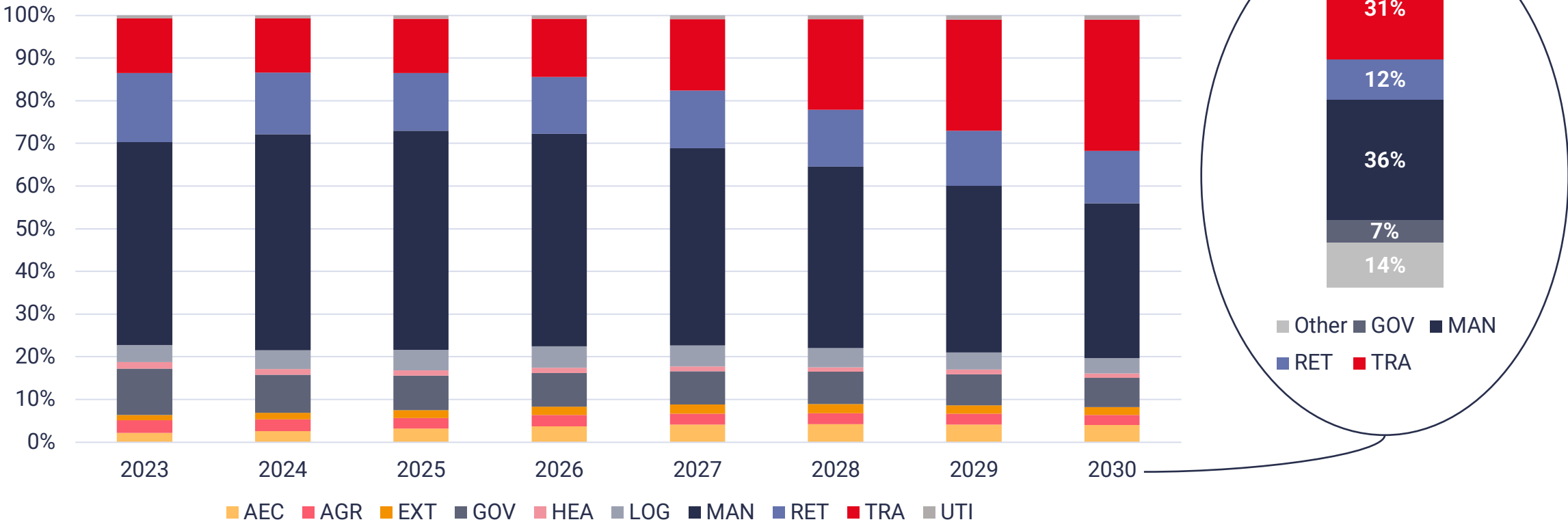
The market for combined Edge, IoT and AI use cases is expected to be worth \$120bn in 2028



This market opportunity for edge, IoT and AI combined use cases will be distributed across several key verticals



Distribution of revenue by vertical for edge, IoT and AI use cases in North America, Europe & Central Asia



However, there are several factors that can diminish the complementarity of the technologies



Technical

Commercial

Regulatory



Integration into legacy systems



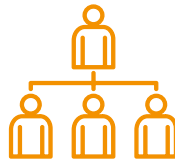
Cultural resistance



Data sovereignty
e.g. EU AI Act



Siloed and inefficient data pipelines



Lack of harmony between IT/OT
e.g. capability gaps



Data privacy and security
e.g. GDPR

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Many disciplines are advancing AI and edge in siloes.
We find that IT and DevOps are run separately

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- Head of Product Marketing, Edge Infrastructure Provider

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With the evolution of technology, maintaining breadth, depth and complexity of data without compromising security becomes important

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- Head of Product Marketing, Edge Infrastructure Provider

The vendor ecosystem can support enterprises to close their AI and automation capability gaps

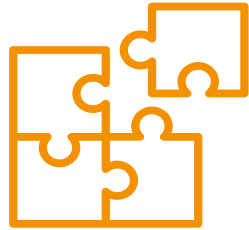
Role of edge, IoT and A3

Commercial outcomes

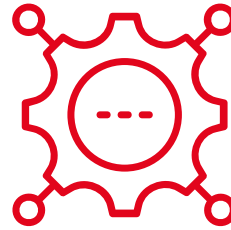
Key considerations

Role of partnerships

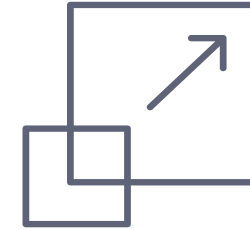
Key takeaways



Ensure the seamless integration of solutions



Facilitate the orchestration and management of edge, IoT and AI solutions



Support scaling of IoT deployment and AI models at the edge

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Collaboration can augment the orchestration of edge devices. We partnered with Red Hat and Intel to leverage their platform and hardware solutions

- COO, Edge and/or IoT Platforms Provider

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We also partnered with HCPs to facilitate the scalability in deploying AI models at the edge.

- COO, Edge and/or IoT Platforms provider

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Edge, IoT and AI offer an opportunity for enterprises to competitively differentiate to capture value

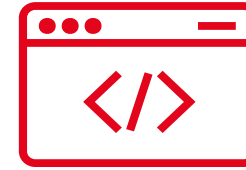
Role of edge, IoT and AI

Commercial outcomes

Key considerations

Role of partnerships

Key takeaways



Enterprises must identify use cases that drive real enterprise value

Enterprises need to solve the 'garbage in, garbage out' problem

Collaboration is key to address the complexity of harmonising heterogeneous devices and systems

The intersection of edge, IoT and AI can help solve real business problems by augmenting data collection, transfer and analysis to enable low latency and real time applications.

Enterprises need to build a comprehensive data strategy. This starts with developing a robust and transparent data pipeline to help overcome technical and commercial challenges.

Ecosystem partnerships is imperative to plug capability gaps and create value through technical convergence at the level of devices, systems and processes.

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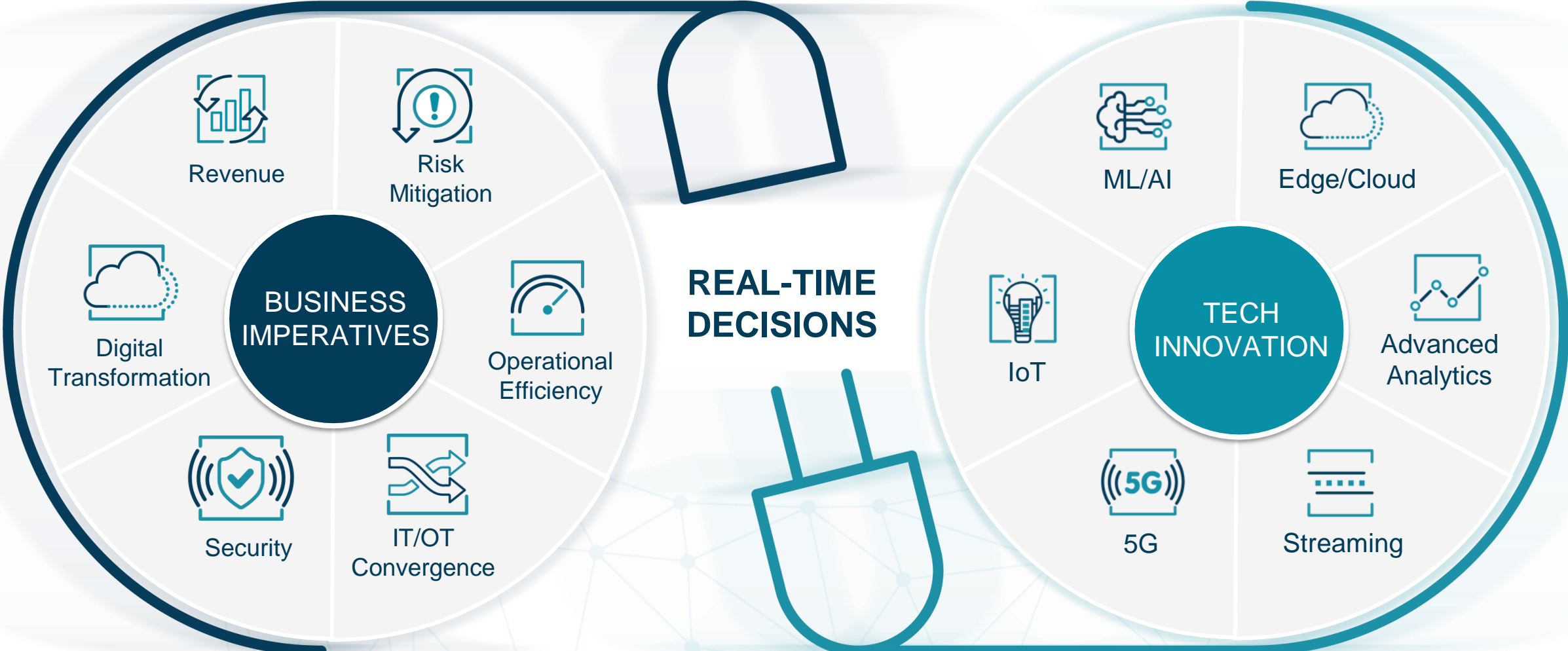
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VOLT

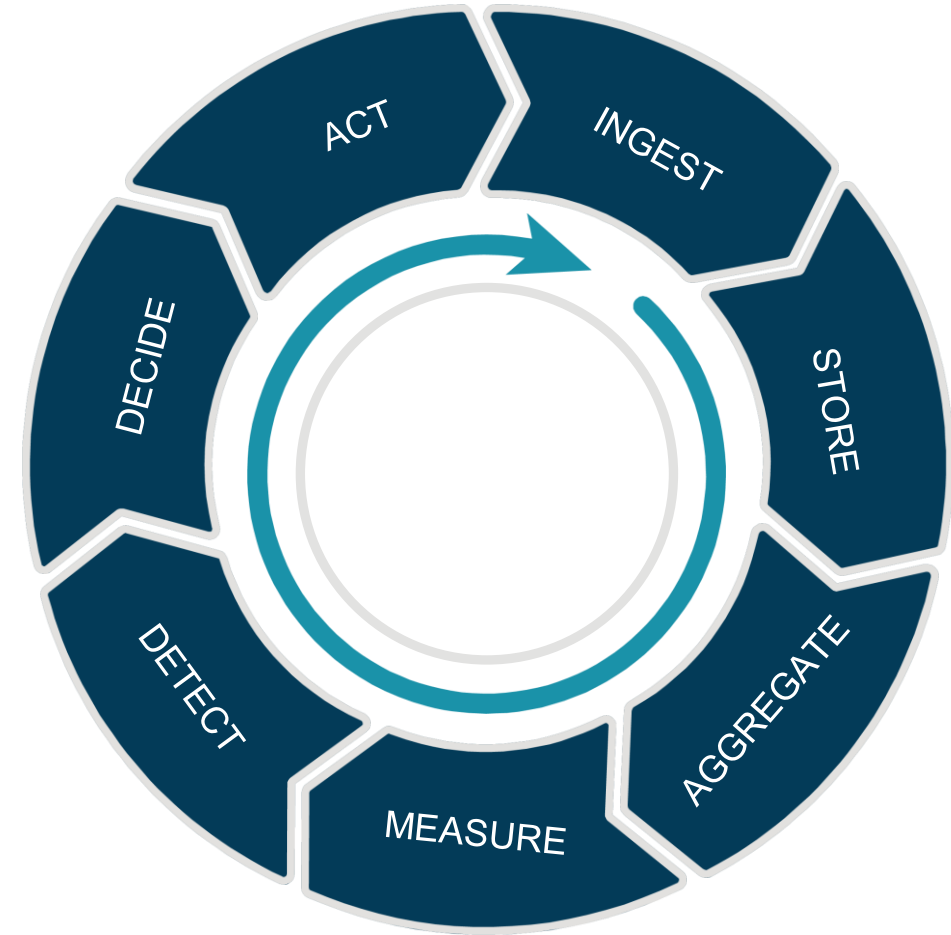
ACTIVE DATA

EDGE IOT CONVERGENCE PART OF A BIGGER PICTURE



A3 – AUTOMATION, AI AND ANALYTICS

Storage, Processing, Business Rules and KPI aggregation and monitoring driving next best decisions and actions

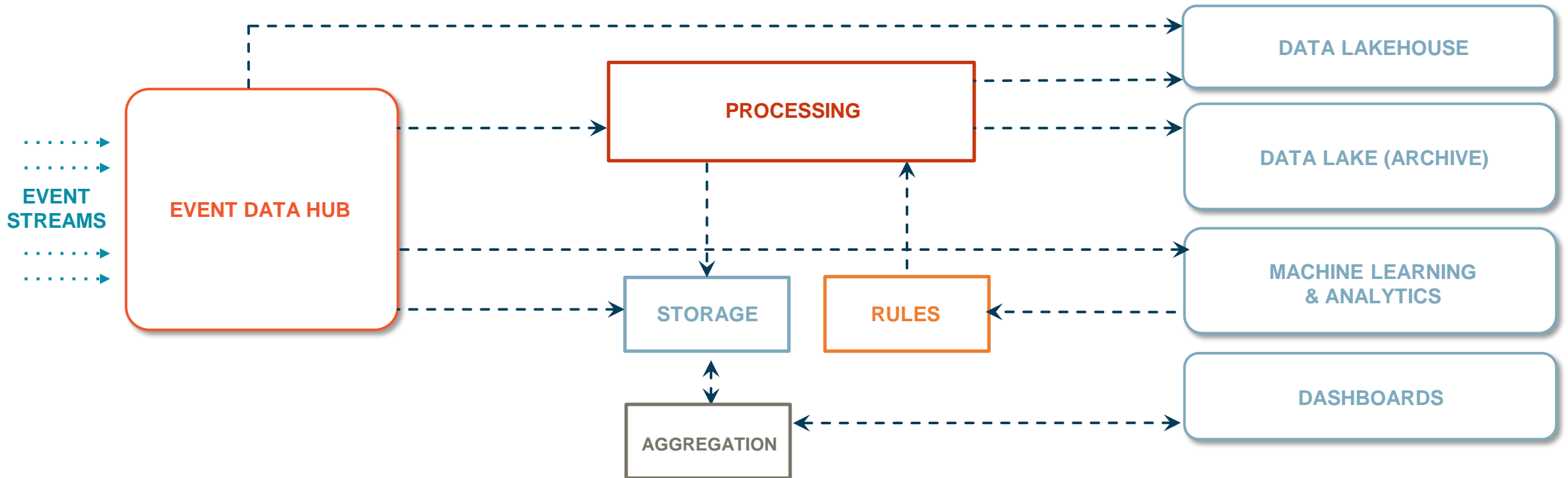


LAYERED ARCHITECTURE

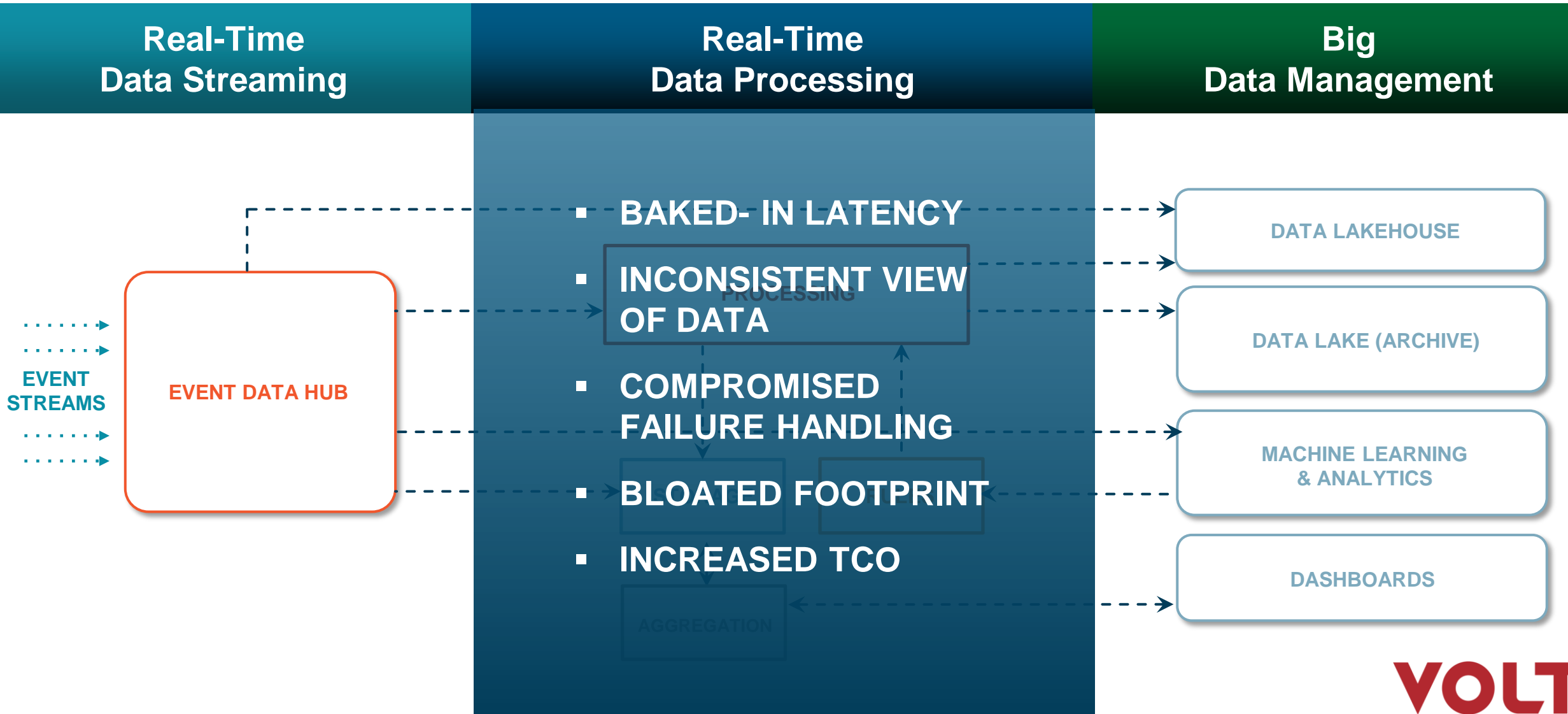
Real-Time
Data Streaming

Real-Time
Data Processing

Big
Data Management



LAYERED ARCHITECTURE: CHALLENGES



THE VOLT ACTIVE DATA PLATFORM

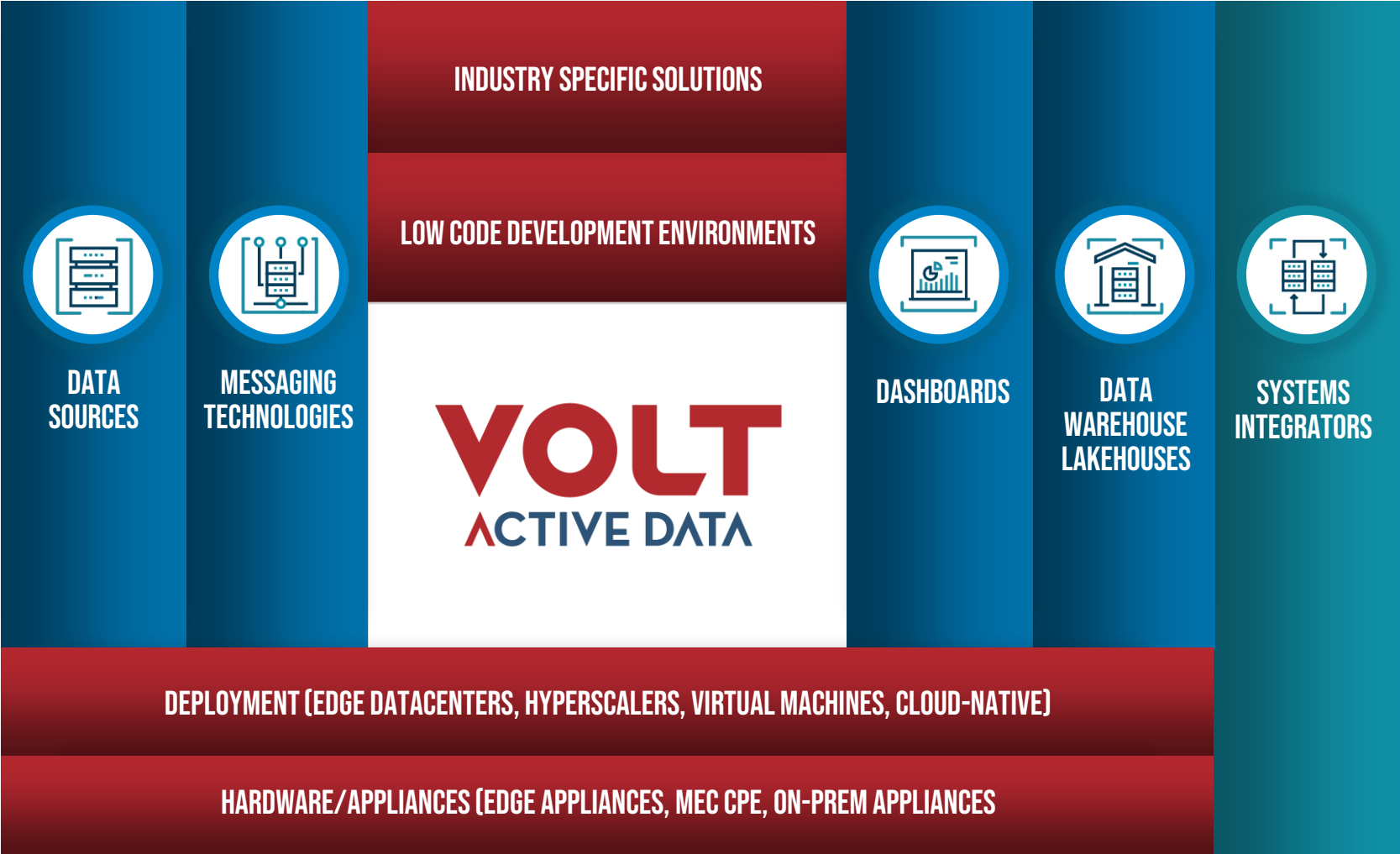
Real-Time
Data Streaming

Real-Time
Data Processing

Real-Time
Data Management



AN ECOSYSTEM APPROACH TO PARTNERSHIPS





USE CASE CATEGORIZATION

- AUGMENTED TRANSACTIONS
- REAL-TIME STREAMING ETL
- ML-AUGMENTED ENRICHED DECISIONS
- COMPLEX EVENT PROCESSING

REAL TIME DECISIONS: PERVASIVE ACROSS MULTIPLE INDUSTRIES / USE CASES



TELCO
POLICY &
CHARGING



TRAFFIC
SAFETY



CUSTOMER
EXPERIENCE



SMART
GRID

“Now more than 10 years old, the modern data stack is ripe for innovation. The inevitable next stage? **Real-time insights** that drive **real-time value** — the modern real-time data stack.” - *MIT Technology Review in association with Nokia*



FANTASY
SPORTS



CYBER
SECURITY
& FRAUD



INDUSTRIAL
IOT &
DIGITAL
TWINs



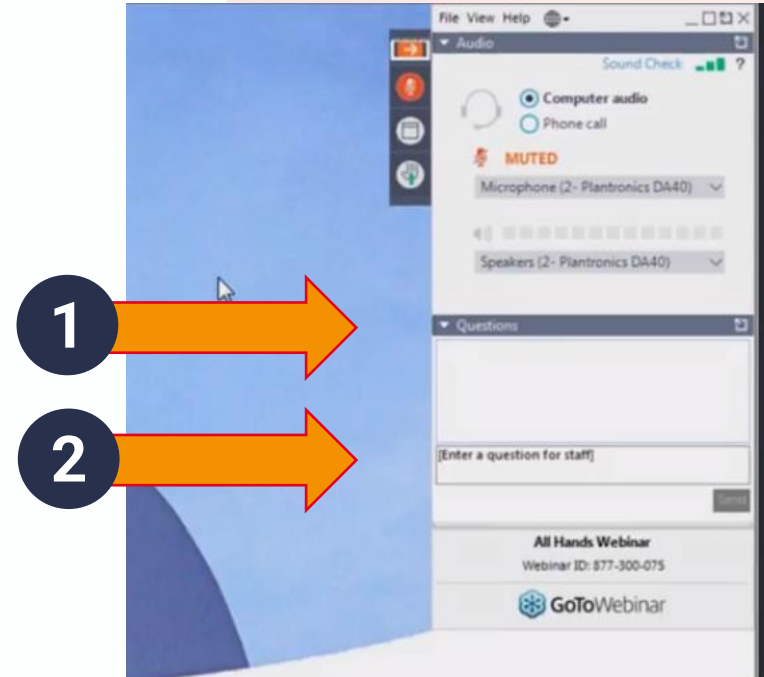
FLEET
MGMT

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Q&A session

Please submit any questions using the GoToWebinar control panel



UPCOMING WEBINAR

Our panelists



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STL PARTNERS

**VOLT
ACTIVE DATA**

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Thank you for joining!

Please visit our website for more

www.stlpartners.com

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For any further questions, please contact:

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