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CEI Market pathways and insights

Service Requirements, Market Segments & Pathways

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29 Key Service Requirements Identified

Consolidated from 3 sources (UNLOCK-CEI analyses), in 4 categories

12 initial “top” requirements identified

Wave 3 Interviews will quantify expert opinions on top requirements

Category	Source:	D1.2 “Updated Report of CEI Demand Landscape” [D1.2]	“EUCEI Task Force 5: Markets and Sectors - Workshop 2 outcomes: Technology mapping of MetaOS use cases” [TF5].	D3.2 “Sector-specific service requirements, data flows and revenue streams in Cloud-Edge-IoT value networks” [D3.2]	Preliminary Top Requirements
Technical Requirements		9	8	<i>no additional requirements identified beyond those from [D1.2] and [TF5]</i>	8
Economic Expectations		5			2
Organisational Readiness		4	1		2
Network Readiness		1			--
Total Requirements Identified:		20	24	21	
Contributed to Top Requirements:		7	3	2	12

Preliminary* Top Service Requirements

ID	Requirement	Importance		
		D1.2 (%)	TF5 (%)	D3.2
D1.2 Econ 2	Enables Business Improvements	88.7		
D1.2 Econ 1	Costs need to be low & ROI clear	64.3	31	1
D1.2 Tech 4	Improved Security, Data Protection, Privacy	62.9	69	8
D1.2 Tech 1	Complete solutions, end-to-end, easy deployment	55.6	13	26
D1.2 Tech 3	Standards-based, Interoperable	46.6	19	4
D1.2 Tech 2	Technical stability, capabilities, mature offerings, confidence in suppliers	44.7		1
D1.2 Org 2	Need supports for improving readiness of Existing IT infrastructure	40.0	25	1
D1.2 Tech 6	Overcomes unreliable connectivity	36.9	56	1
D1.2 Org 5	Ease-of-use, Solution easy to adapt to my business processes	34.9	6	10
D1.2 Tech 8	Allows deployment of AI analytics models close to the device	33.4	44	1
TF5 Tech 1	Orchestration of workloads across different parts of continuum & different providers		50	1
TF5 Tech 6	Enable data sharing and value-added services		6	12

*Subject to Confirmation in Wave 3 Interviews

UNLOCK-CEI has estimated market opportunities for a large set of cloud-edge-IoT use cases

79 Considered Use Cases, across 5 sectors

Only Business to business (B2B)

€26 billion estimated annual market

Highly concentrated: 19 biggest opportunities represent >90% of total

Wide range of application types:

Location tracking, Visual inspection, Condition Monitoring and Predictive Maintenance, Asset Command and Control, Autonomous Vehicles, Performance Optimisation.

Details can be found in D2.2

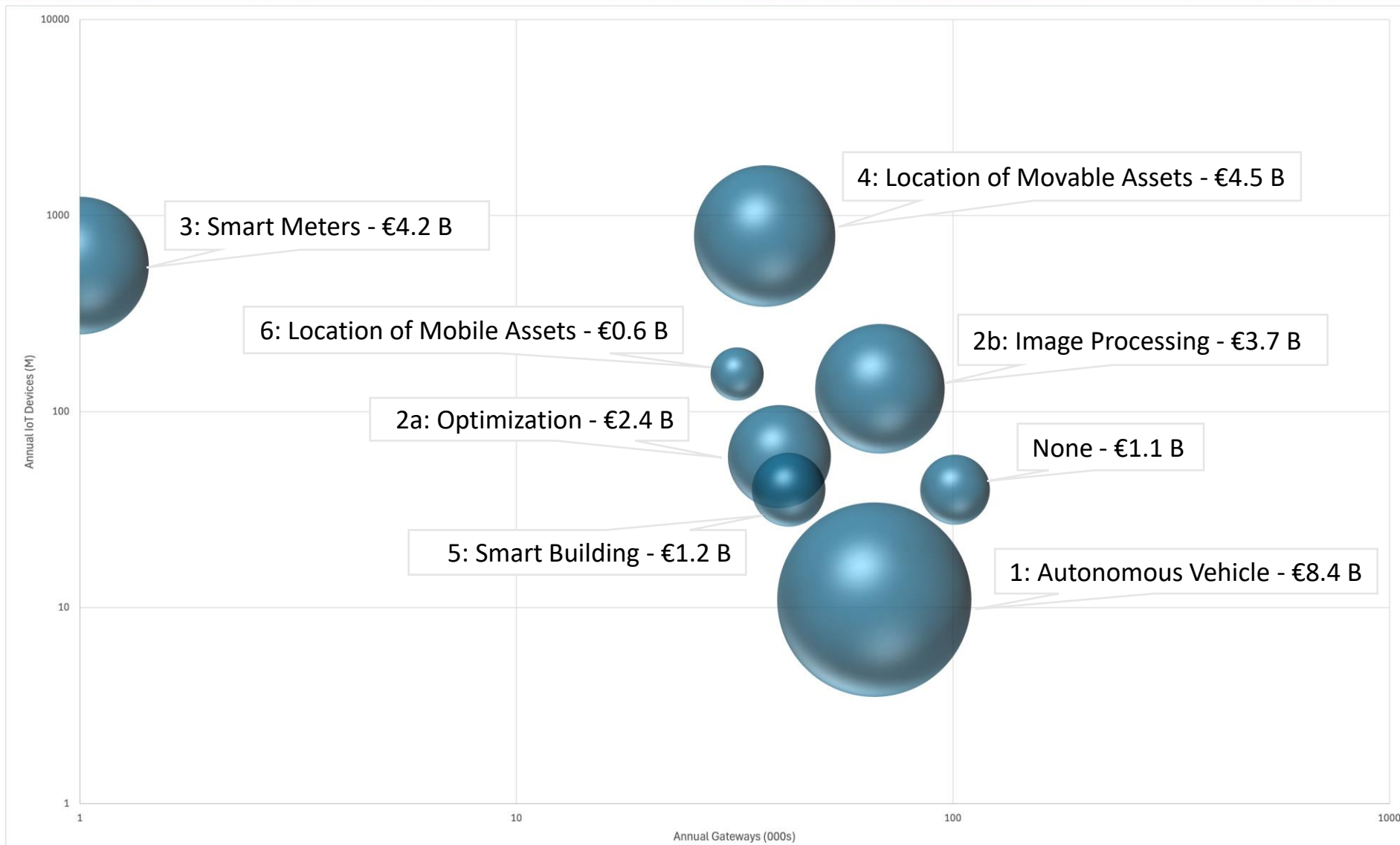
Not an exhaustive analysis:

MetaOS use cases identify another 20 use cases

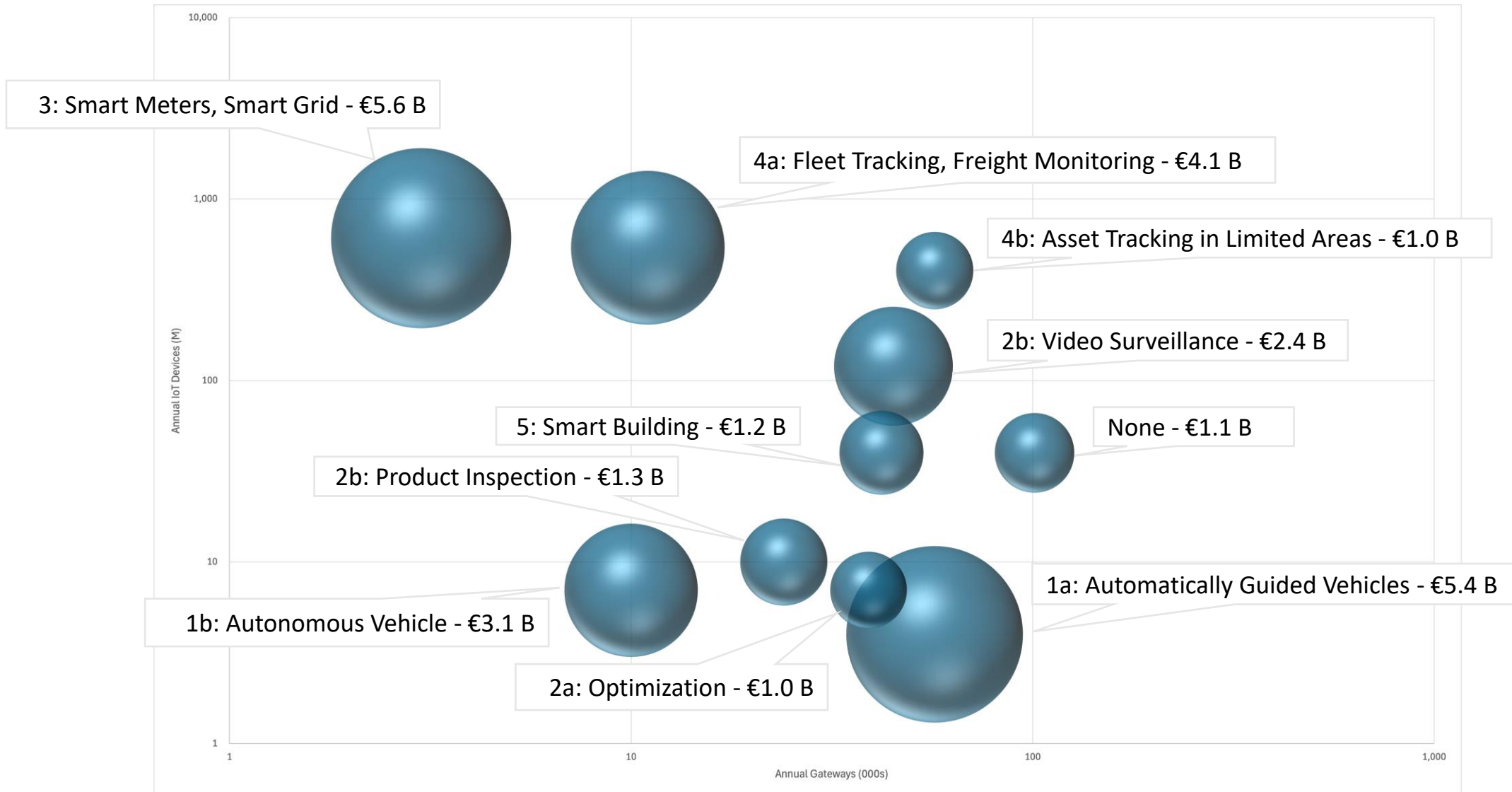
Other sectors (e.g. finance, retail)

Consumer applications

Preliminary Market Segments



Market Pathways – reflect likely market evolution



Target **optimization of high-volume IoT devices**, rather than the design of versatile gateways and related orchestration mechanisms.

- Small number of use cases --> Biggest opportunities, large numbers of similar IoT devices
- Need for versatile gateways addressing, multiple applications within a single sector, is not holding back market growth.
 - Initial segmentation points to **application type, not sector, as focus for investment**. (Development, Pilots, Competence Centres)
- High device volumes represent significant opportunities for European economy, but will also attract considerable foreign interest.
 - **EU regulatory regime (e.g. GDPR, Data Act) should be enforced to maintain EU opportunities**.

Most of the biggest use cases **do not need edge roaming or workload orchestration**.

- **Exception: Freight and fleet tracking.**
- Encourage transport sector to drive this expansion, for themselves and to support broader network and edge-roaming coverage.
- **Private networking for limited area coverage should be encouraged to support federated edge networks, to support future growth.**

Condition monitoring / Predictive maintenance --> much smaller opportunities, not clustered with other segments.

- May not be attractive targets for investment in development and research.



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