



Alliance for
Internet of Things
Innovation

Architectures, actors, business models impact

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The perspective of AIOTI:

**IoT as a significant cross-sector technology,
driving developments forward
that requires interoperable environments and
platforms**

Setting the impact goals:

CROSS SECTORIAL

Aligning across sectors to benefit from market opportunities created by enabling technologies, such as big data analytics, AI, IoT enabled systems and solutions, cloud computing, DLT and blockchain.

SOCIETAL

Digital services need to be brought closer to citizens in ways that avoid customer lock-in due to closed platforms or hardware protocols and the lack of interoperability among services.

SCALING UP

Avoid fragmentation by developing tailored solutions for small markets, rather than focusing on growing across Europe.

In 2050 the Customer is fully engaged

VISION 2050

A SYSTEM OF SYSTEMS



FUTURE VISION 2050
HARMONISED REGULATION
DATA VALORISATION CROSS-DOMAIN
INTEROPERABLE TECH
CONNECTIVITY
DISTRIBUTED INTELLIGENCE

AIOTI is structured cross-sector

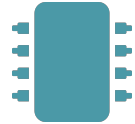
Working Groups

WG 01	IoT Research									
WG 02	Innovation Ecosystems									
WG 03	IoT Standardisation									
WG 04	IoT Policy									
	SME Interests									
	Blockchain Work Stream									
		Smart Living Environment for Ageing Well	Smart Farming and Food Security	Wearables	Smart Cities	Smart Mobility	Smart Water Management	Smart Manufacturing	Smart Energy	Smart Buildings and Architecture
		WG 05	WG 06	WG 07	WG 08	WG 09	WG 10	WG 11	WG 12	WG 13

Internet of Things



Artificial
Intelligence



Distributed
Ledger
Technologies

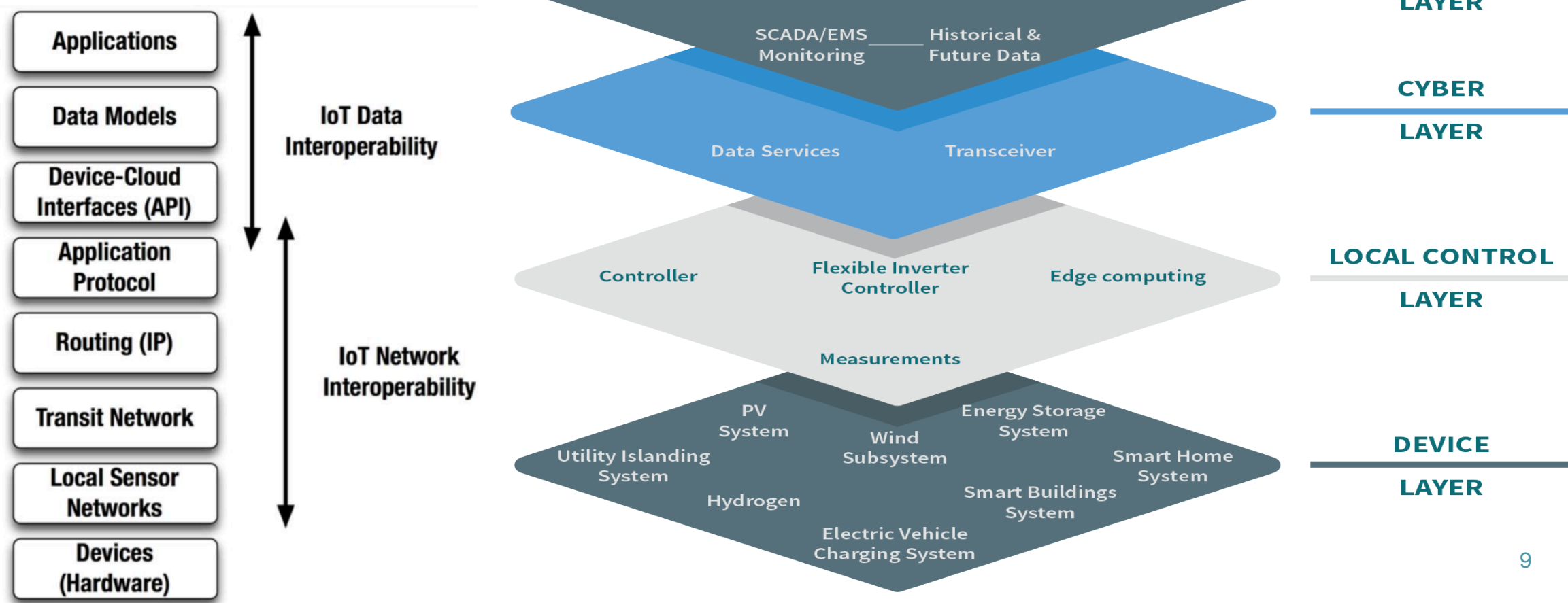


Regulation

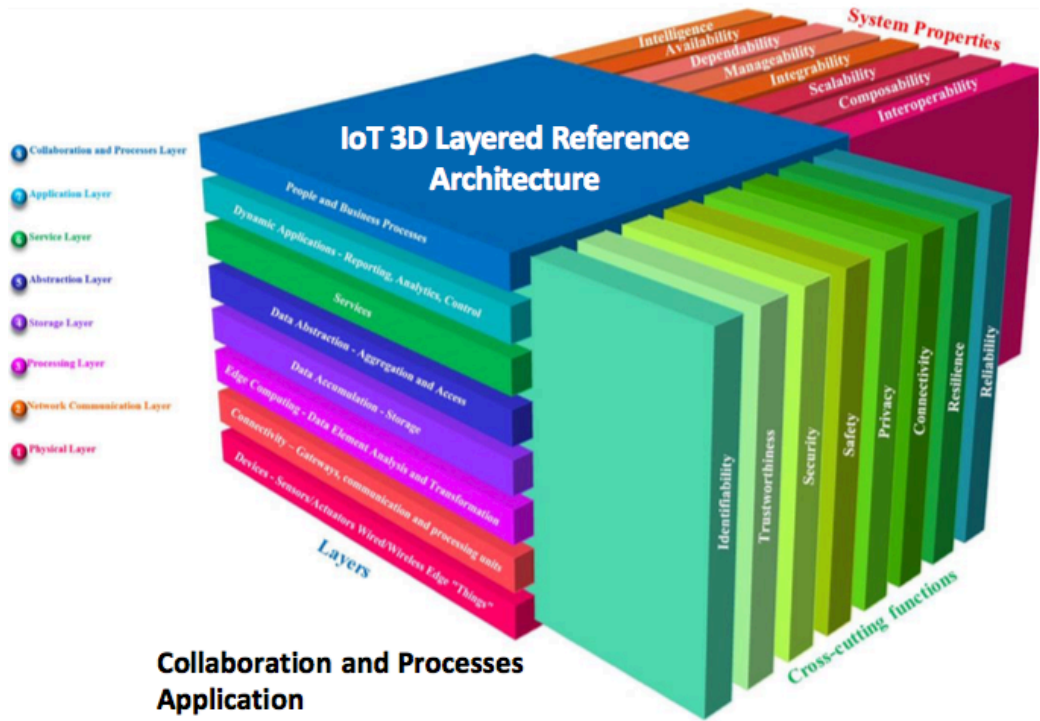


**Building Blocks for more flexible
energy grids of the future**

TRANSACTIONAL GRID

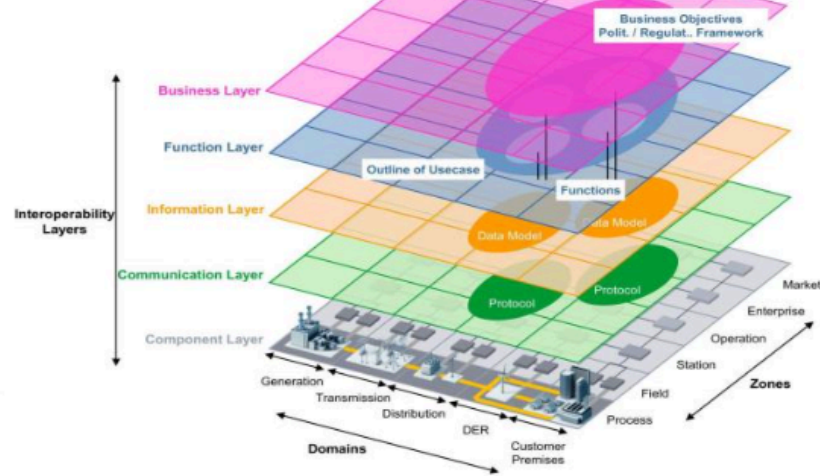
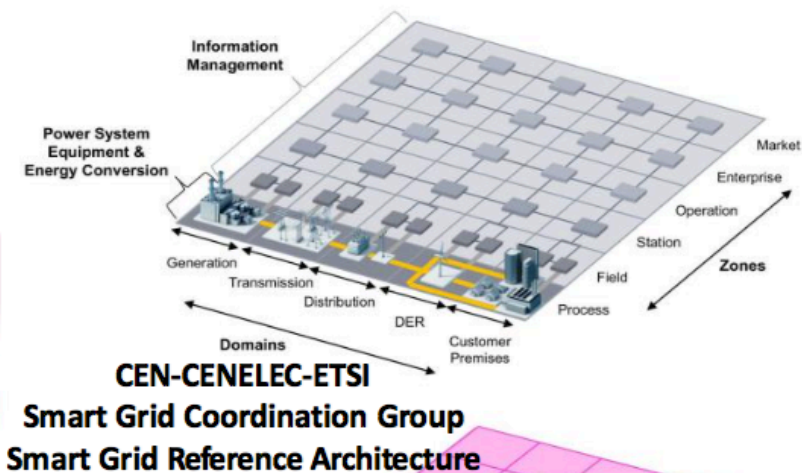


ARCHITECTURES

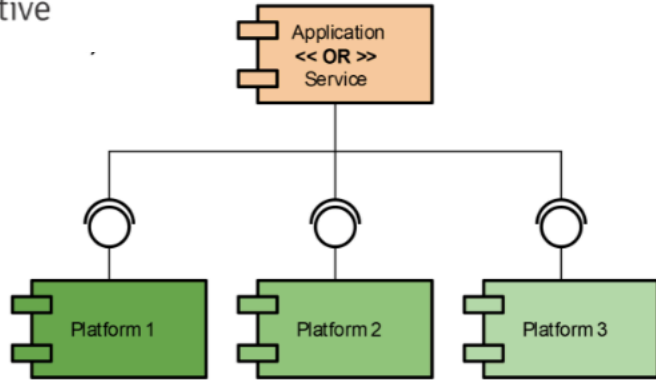


Collaboration and Processes
Application
Service
Abstraction
Storage
Processing
Network Communication
Physical

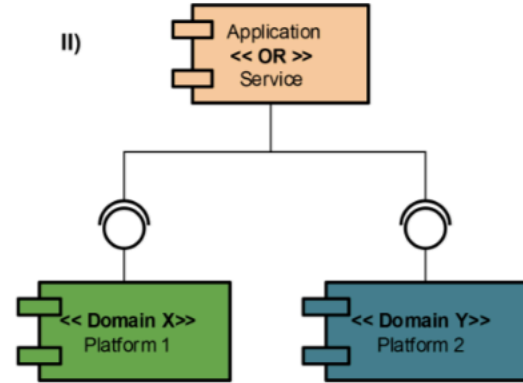
Identifiability
Trustworthiness
Security
Safety
Privacy
Connectivity
Resilience
Reliability



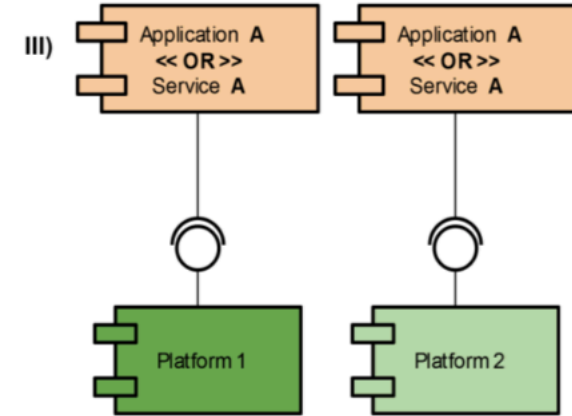
Cross Platform Access



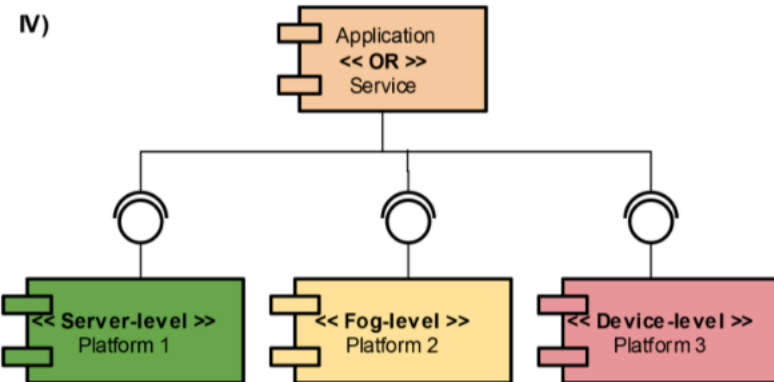
Cross Application Domain Access



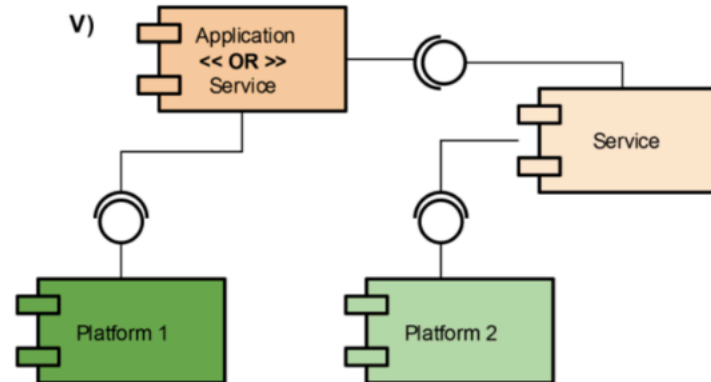
Platform Independence



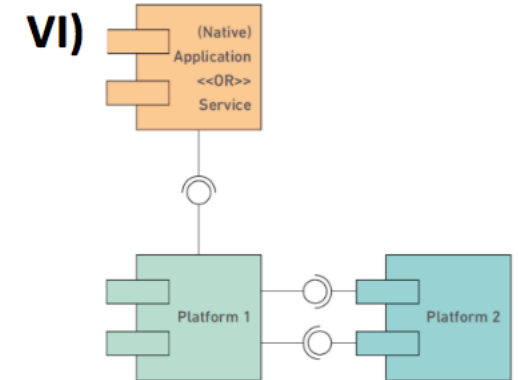
Platform-Scale Independence



Higher-level Service Facades



Platform Independence



Interfaces challenges Actors

- Prosumer – size and scale, segment C2C, B2C, B2B
- DSO – local market, prosumer, aggregator, P2P communities
- TSO
- TSO-DSO
- Aggregator, A2D, A2M, A2Communities

Wholesale Market; Local Markets

Business models impact



“...DSOs will need to adapt their current role and transform their model to keep pace with both the transformation of the energy world and changing customer needs.

It is high time to better understand what role and responsibilities DSOs will embrace, what investments and new business models are needed to facilitate the transition of the DSOs towards a platform model while continuing to ensure high levels of reliability”

Reflection on IES goals

- Implement and establish a transnational vendor-neutral, cooperative and participatory process to achieve interoperability of ICT-systems in European smart energy systems.
- Adapt an existing open source interoperability test platform to the needs of the energy sector as joint activity together with partners from different EU countries, organise and establish
- European interoperability test events ("Connectathon Energy") to test interoperability of ICT- components for conformance with existing standards as well as for interoperability among systems by different manufacturers.
- Add value to the 'European Interoperability Framework for European public services' (EIF) by setting an example for semantic and technical interoperability in the energy sector.
- Increase stakeholders' awareness for competitive advantages of interoperable solutions, thereby achieving a broad applicability and acceptance of test systems to ensure interoperability in future energy systems.



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