



## IoT Workshop on Energy and Home Confort

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### Interflex contact points

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## French SME

- 4 business units



## Smart Grid Interoperability, security and privacy

- Linky smart meter
- G3-PLC alliance
- Interflex



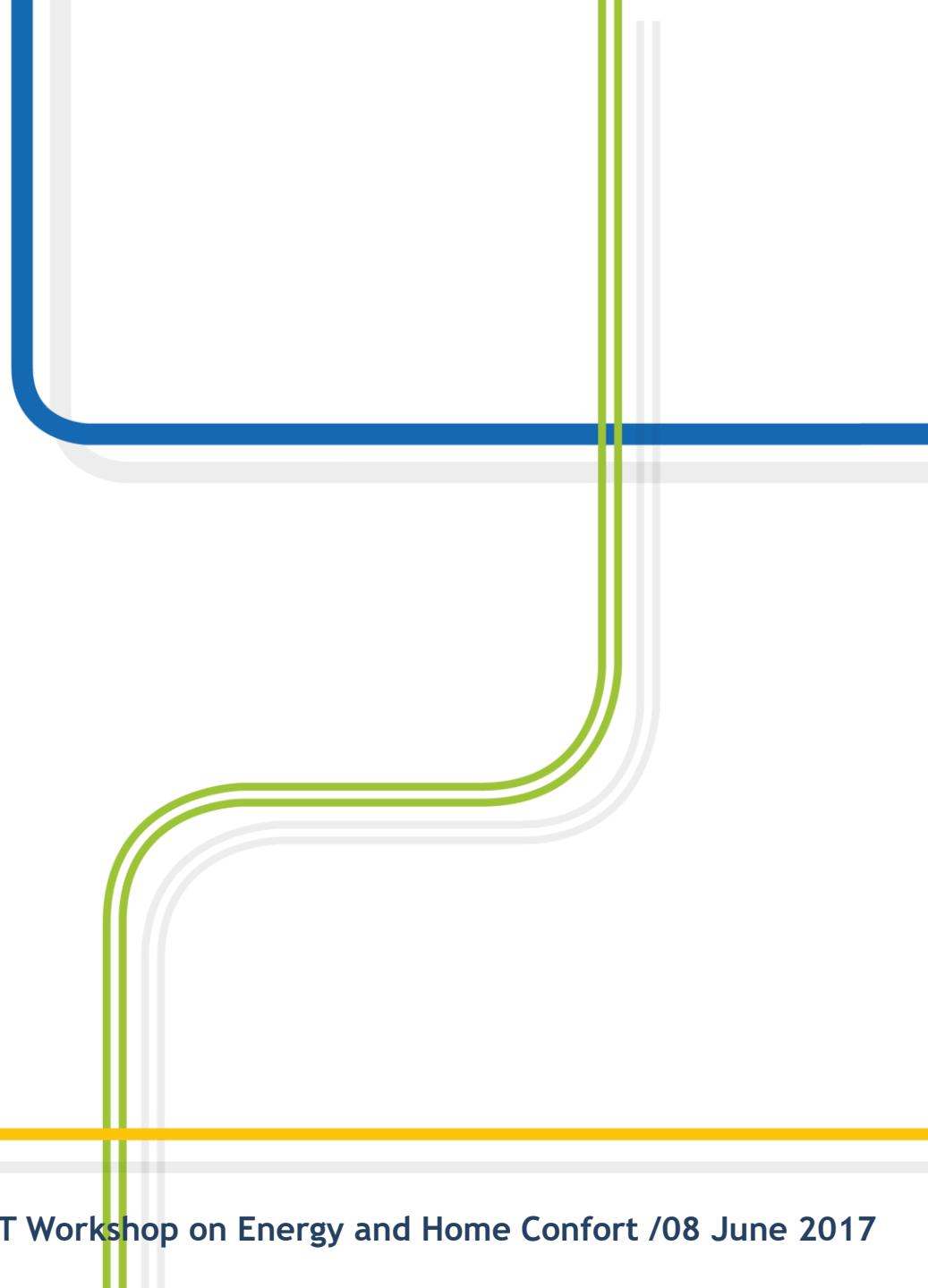
## Internet of things

- Support action

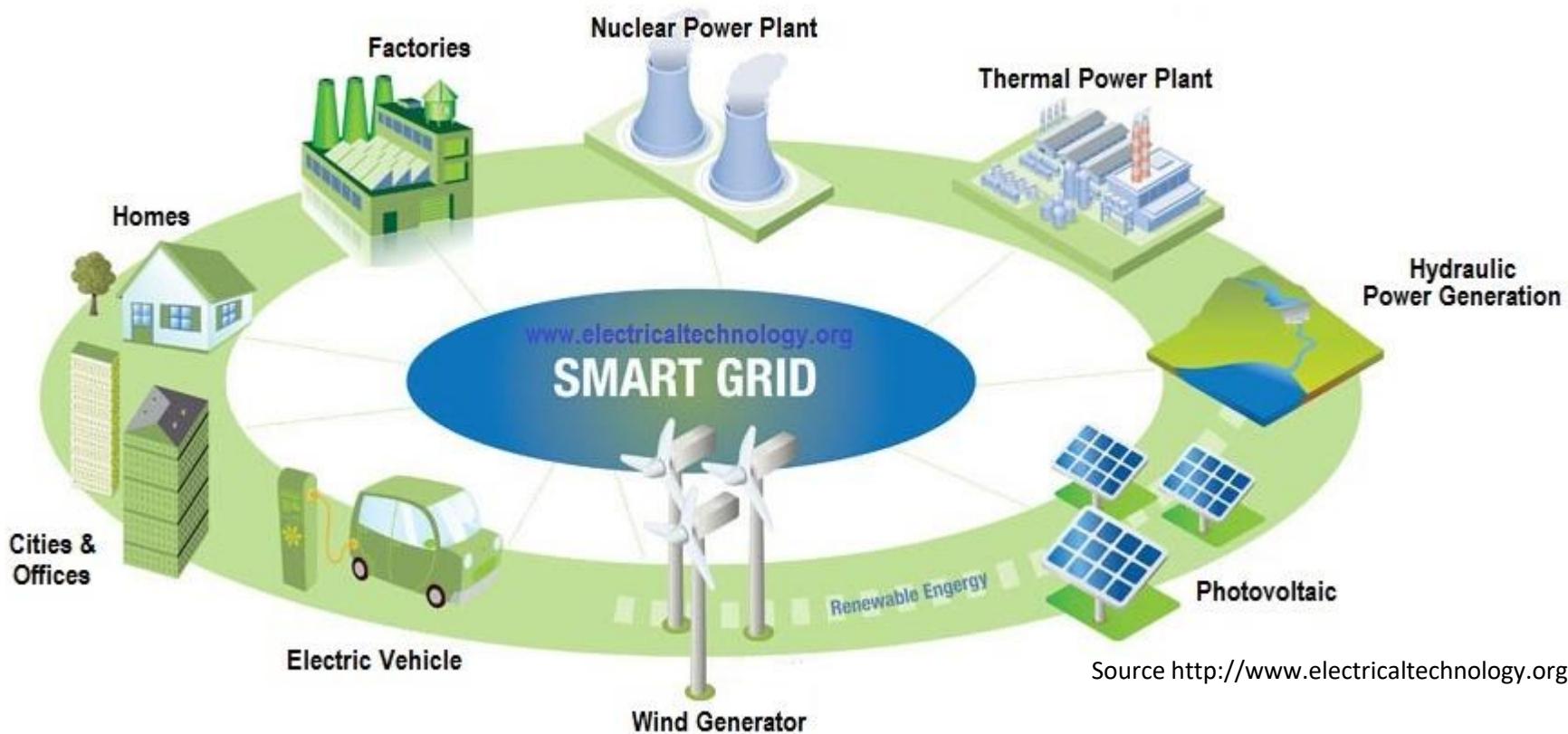


CREATE-IoT

# 1/ Smart grid context



## Efficient integration of multiple sources of demand (consumers) and of supply (generators)

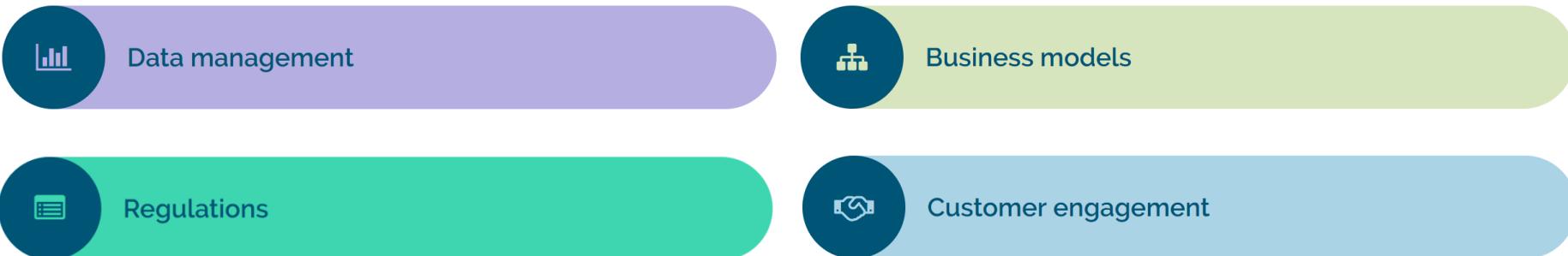


## Objective

- create a structured view of cross-cutting issues encountered in 31 H2020 demonstration projects



## 4 Working groups

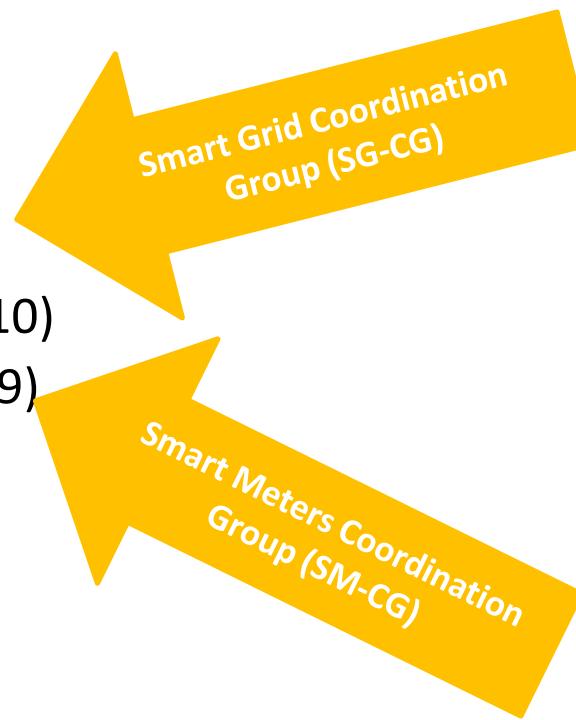


**Set up by the European Commission in 2009**

**Advise on issues related to smart grid deployment and development.**

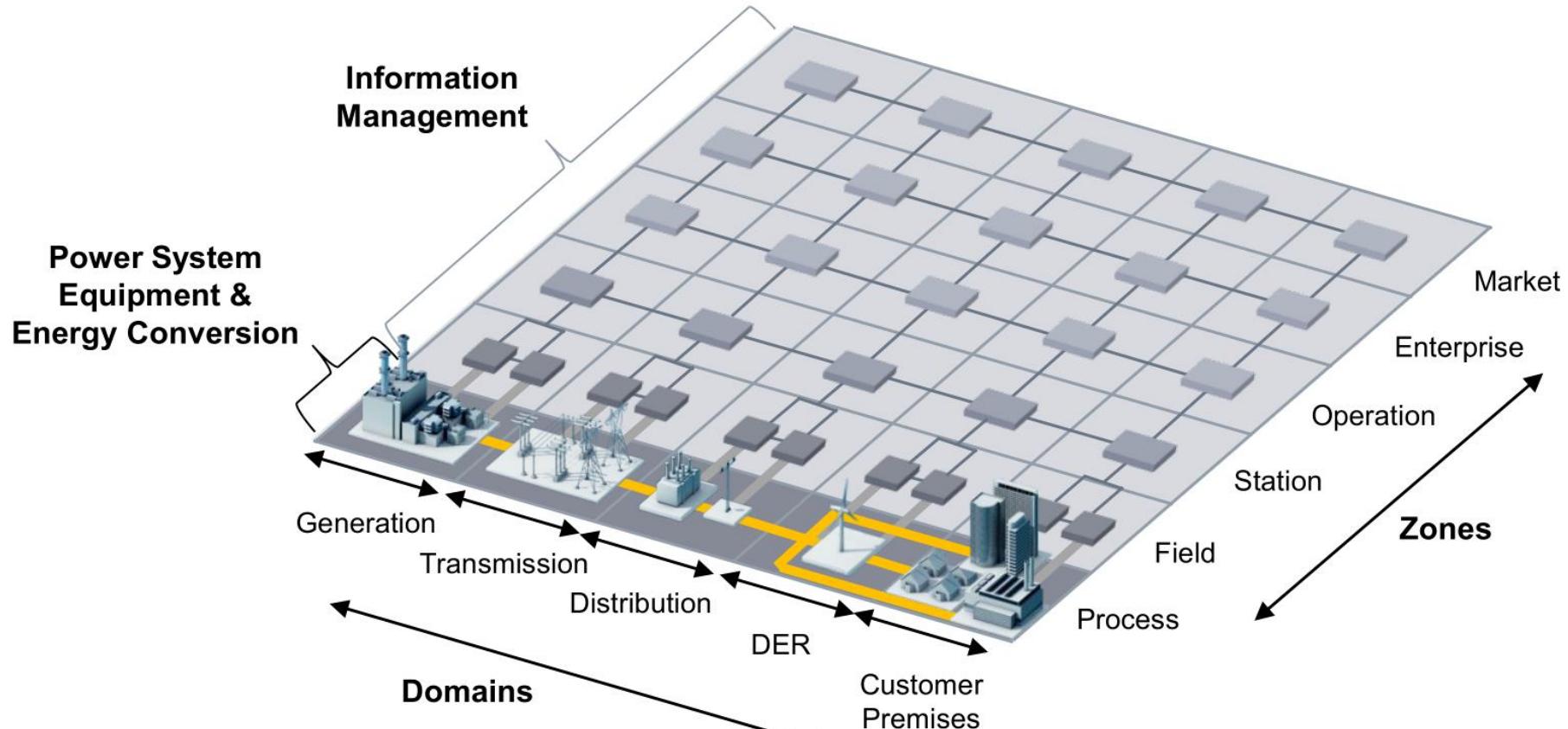
**Five Expert Groups**

- Smart grid standards
  - Mandate M/490 for smart grids (March 2011)
  - Mandate M/468 for electric vehicles (June 2010)
  - Mandate M/441 for smart meters (March 2009)
- Data protection and cyber-security
- Regulatory recommendations
- Smart grid infrastructure development
- Implementation of smart grid industrial policy



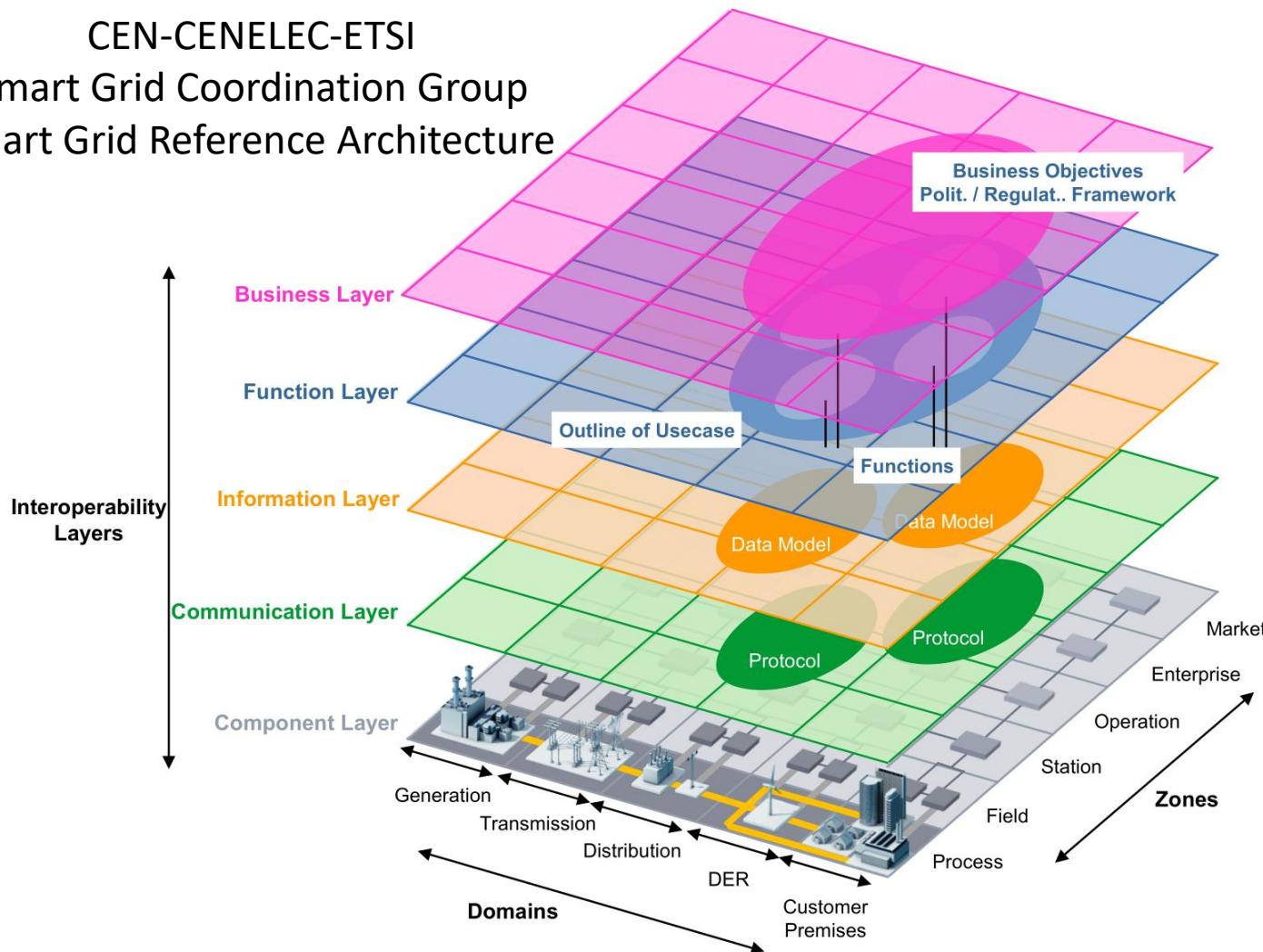
Smart Grid Coordination Group (SG-CG)

Smart Meters Coordination Group (SM-CG)



CEN-CENELEC-ETSI  
Smart Grid Coordination Group  
Smart Grid Reference Architecture

CEN-CENELEC-ETSI  
Smart Grid Coordination Group  
Smart Grid Reference Architecture



## 2/ Interflex



6 real-scale demonstrators in 5 different European countries

3-year project duration started on Jan 1<sup>st</sup> 2017

22.8 M€ total budget

20 Partners

- DSOs
- Large-scale European retailers
- IT solution providers
- Suppliers
- Research centres
- Knowledge and innovation centre
- Consulting
- SMEs

 ENEDIS  
L'ÉLECTRICITÉ EN RÉSEAU

 avacon

 DISTRIBUCE

 e-on

 ENEXIS  
GROEP



 SIEMENS  
Ingenuity for life

 Schneider  
Electric

 Fronius

 socomec  
Innovative Power Solutions



 GRDF  
Gaz Réseau  
DISTRIBUTION FRANCE

 engie

 edf

 ElaadNL

 TRIALOG

 accenture

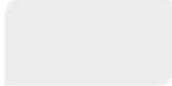
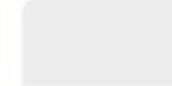
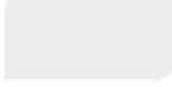
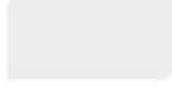
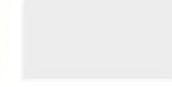
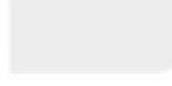
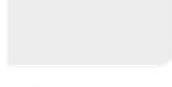
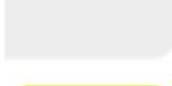
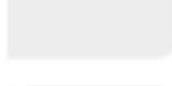
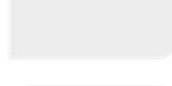
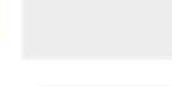
 RWTHAACHEN  
UNIVERSITY

 AIT  
AUSTRIAN INSTITUTE  
OF TECHNOLOGY

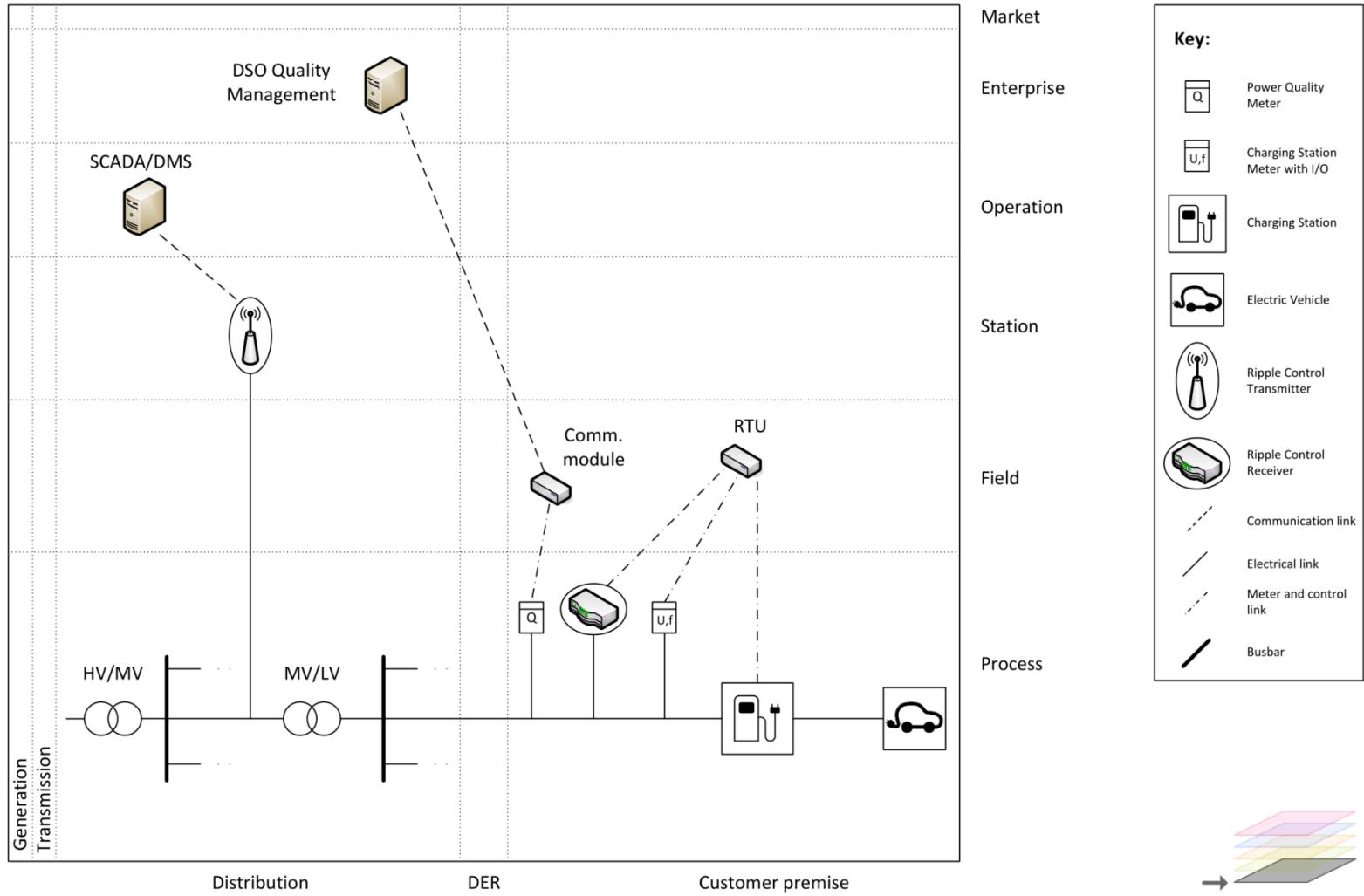
 TNO  
innovation  
for life



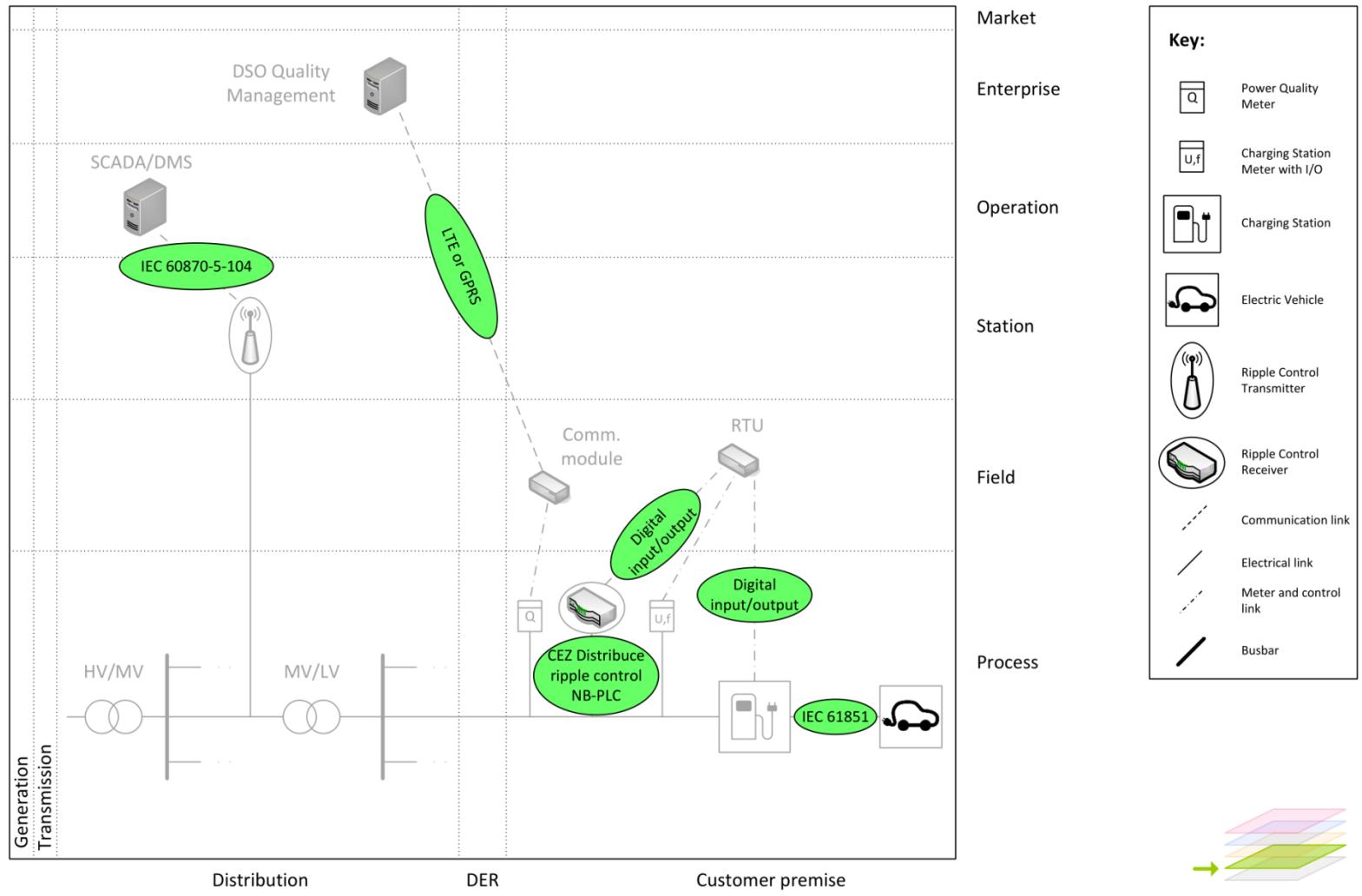
# Six Demonstrators

	DEMO 1	DEMO 2	DEMO 3	DEMO 4A	DEMO 4B	DEMO 5
						
						
						
						
						
						
 DEMAND RESPONSE						
 ENERGY CARRIER INTEGRATION						
 STORAGE						
 ELECTRIC VEHICLE						
 ISLANDING						
 GRID AUTOMATION						

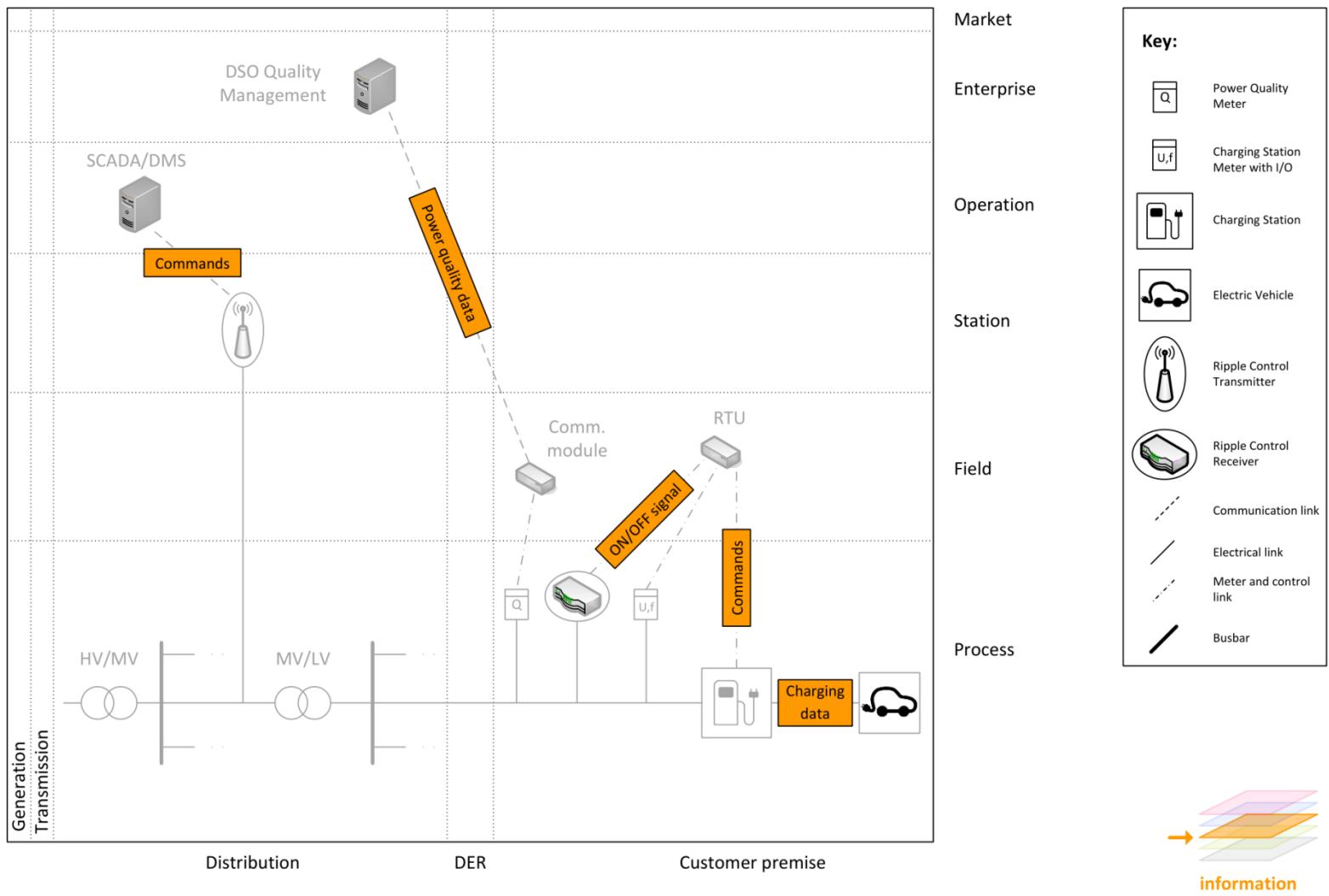
# Example of Smart EV charging Component plane



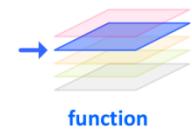
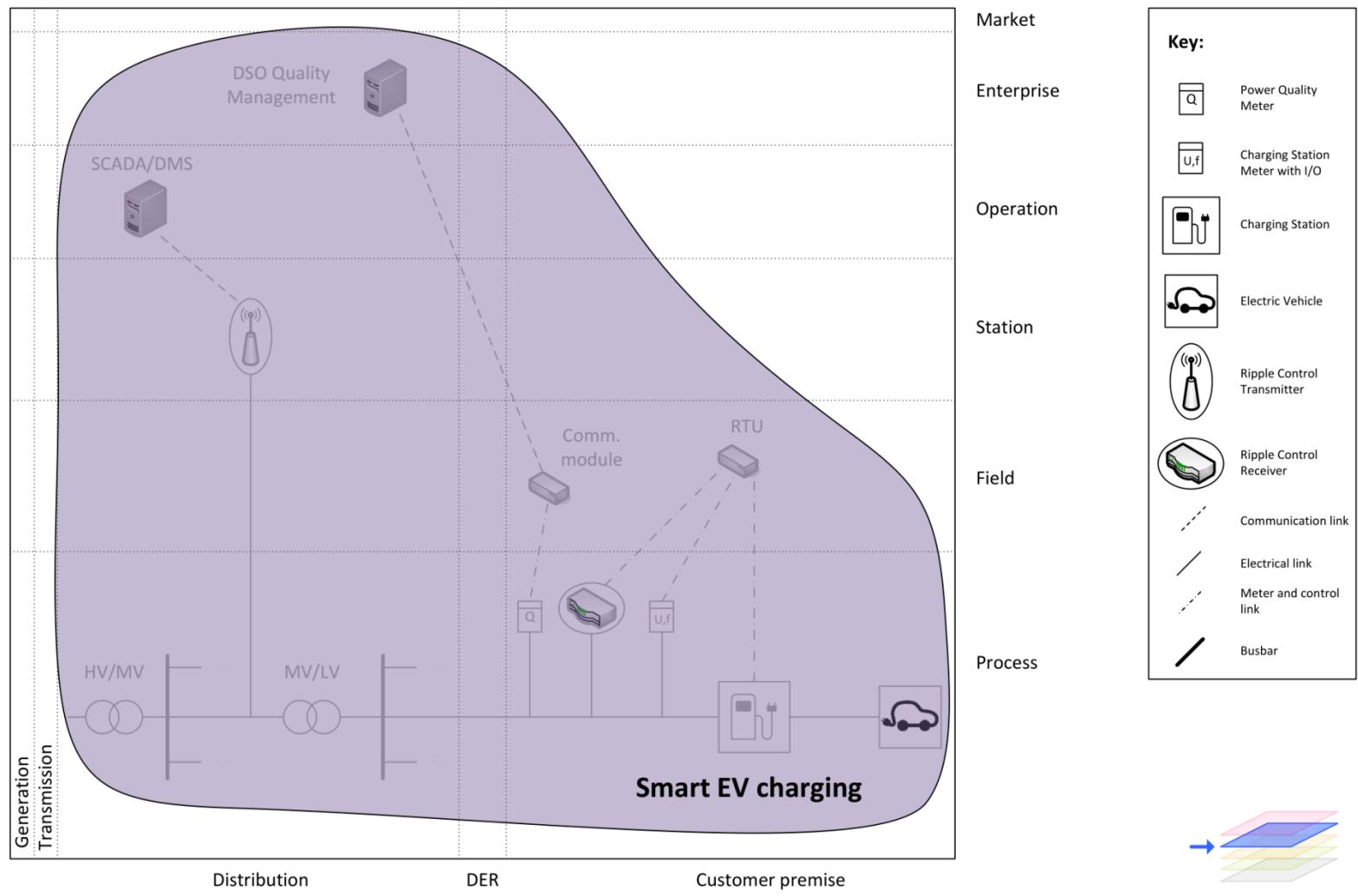
# Smart EV charging Communication



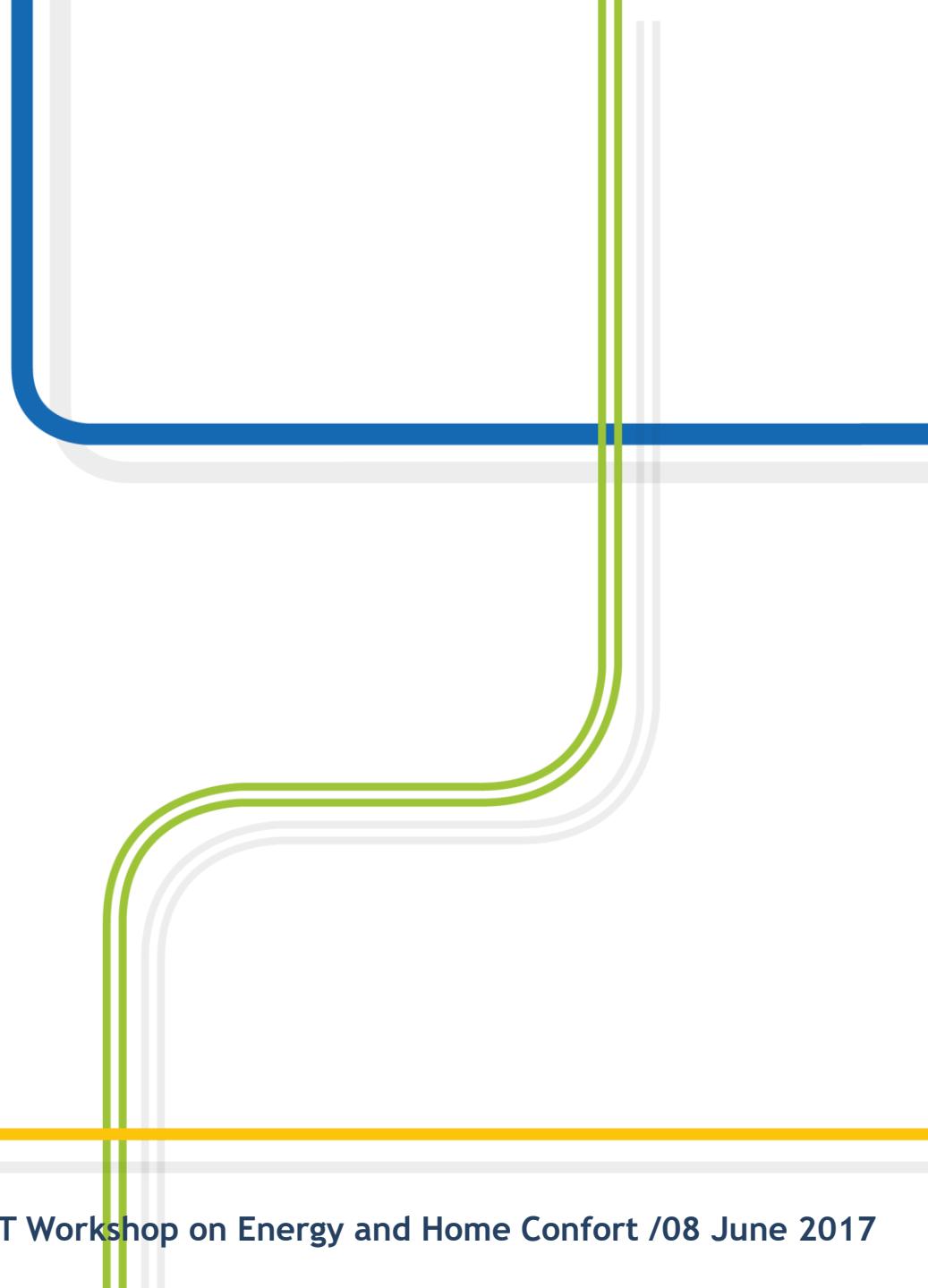
# Example of Smart EV charging Information Plane



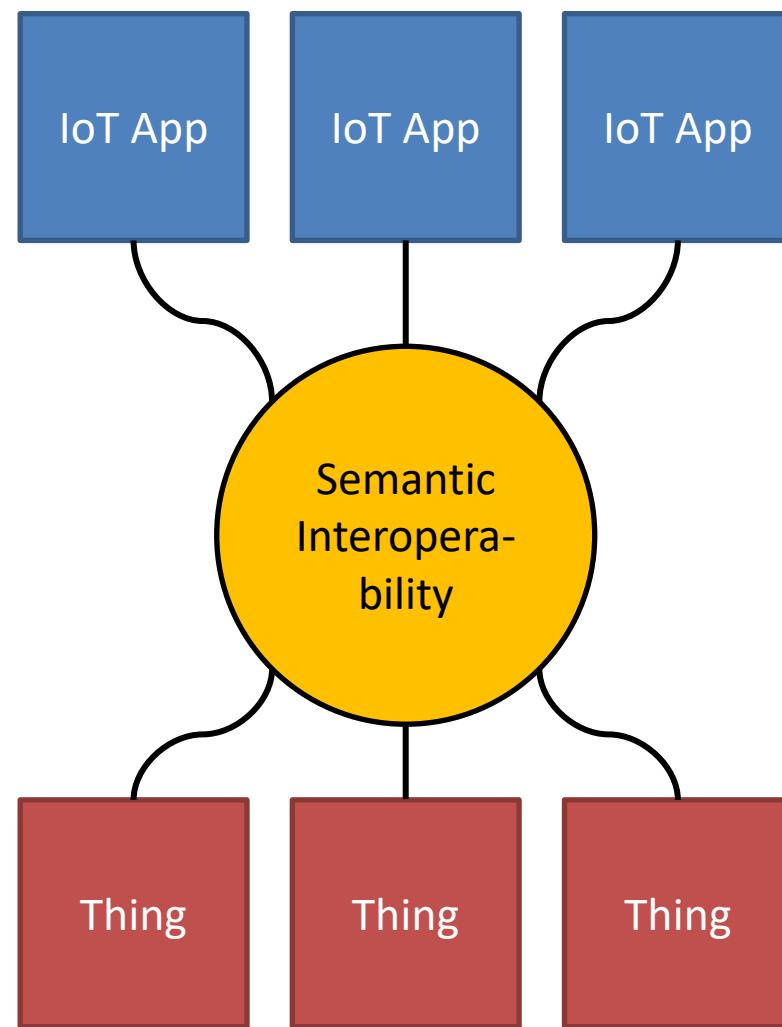
# Smart EV charging Function



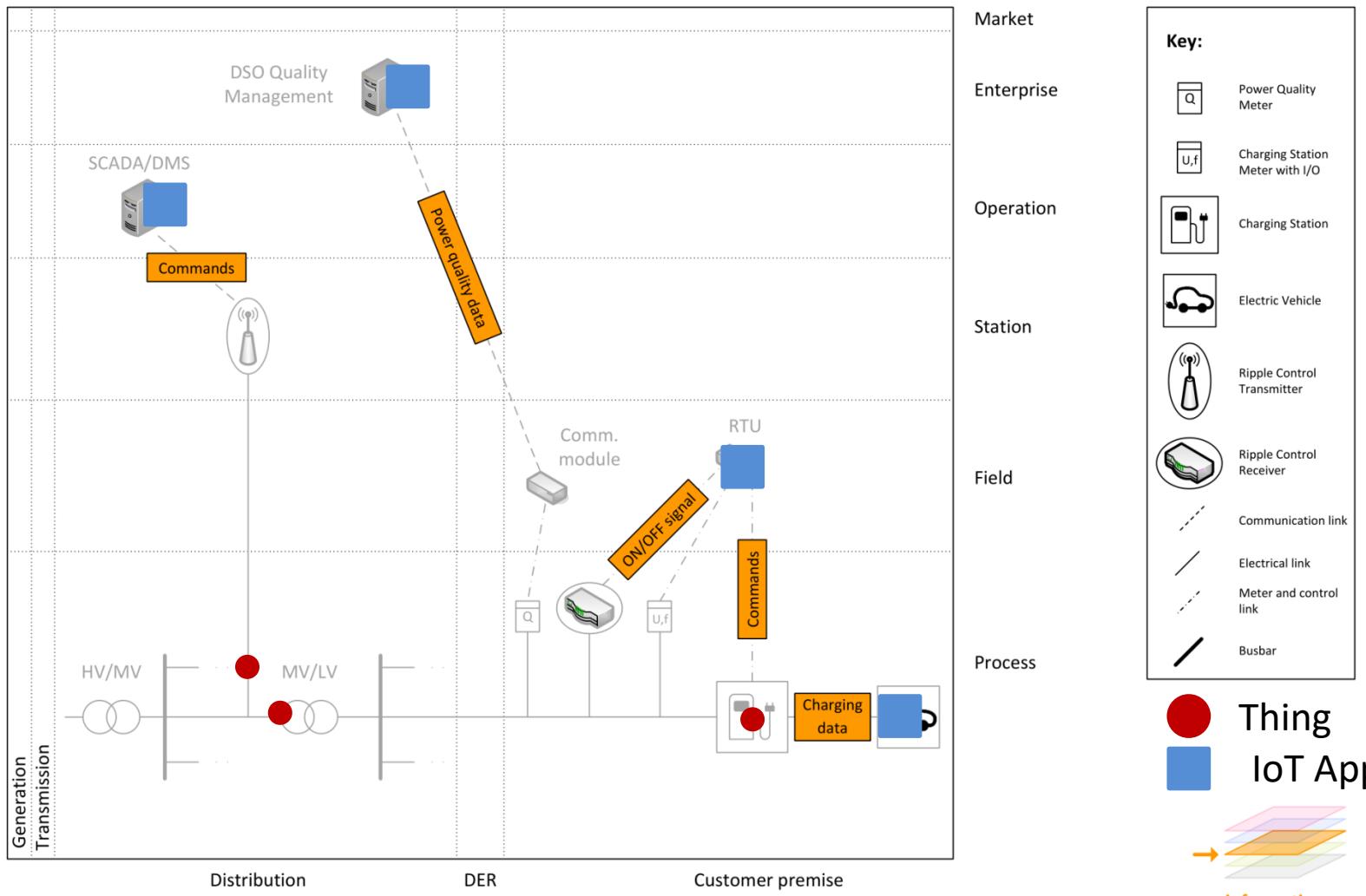
# 3/ Relationship with IoT



## IoT in one Picture



# IoT in the Smart EV charging Information plane



**Trialog**

- [www.trialog.com](http://www.trialog.com)

**DG Energy**

- <https://ec.europa.eu/energy/en>
- <https://ec.europa.eu/energy/en/newsletters>

**SET Plan and technology roadmap**

- <https://setis.ec.europa.eu/>
- [https://setis.ec.europa.eu/system/files/Complete\\_report.pdf](https://setis.ec.europa.eu/system/files/Complete_report.pdf)

**European Technology & Innovation Platforms**

- <http://www.etip-snet.eu/>

**Cooperation group of Smart Grids and Energy Storage H2020 projects**

- <http://www.h2020-bridge.eu/>

**EC smart grid task force**

- <https://ec.europa.eu/energy/en/topics/markets-and-consumers/smart-grids-and-meters/smart-grids-task-force>

**CEN-CENELEC-ETSI Smart Grid Coordination Group (SG-CG)**

- <https://www.cencenelec.eu/standards/Sectors/SustainableEnergy/SmartGrids/Pages/default.aspx>

# Thanks

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