ESMIG

EUROPEAN SMART METERING INDUSTRY GROUP

WE MAKE METERING SMART

Promoting Interoperability and Standards to ensure a smooth smart roll-out and a competitive end user market

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About ESMIG – the organisation

ESMIG – the European Smart Metering Industry Group

- is the European industry association that provides knowledge and expertise on Smart Metering and related communications technologies at a European level.
- ESMIG's members are the leading companies in the European Smart Metering market (meter manufacturing, software, installation, consulting, to communications, data management and system integration).
- member companies cover all aspects of Smart Metering, including electricity, gas, water, and heat measurement;
- by giving support to the European Union and its member states as well as through co-operation and partnerships with relevant stakeholders, the Industry Group aims to assist in the development of national and European-wide introduction, rollout and management of Smart Metering solutions;
- is located in Brussels and registered under Belgian law (aisbl);
- is registered in the European Transparency Register (71326222148-95).

About ESMIG – the members

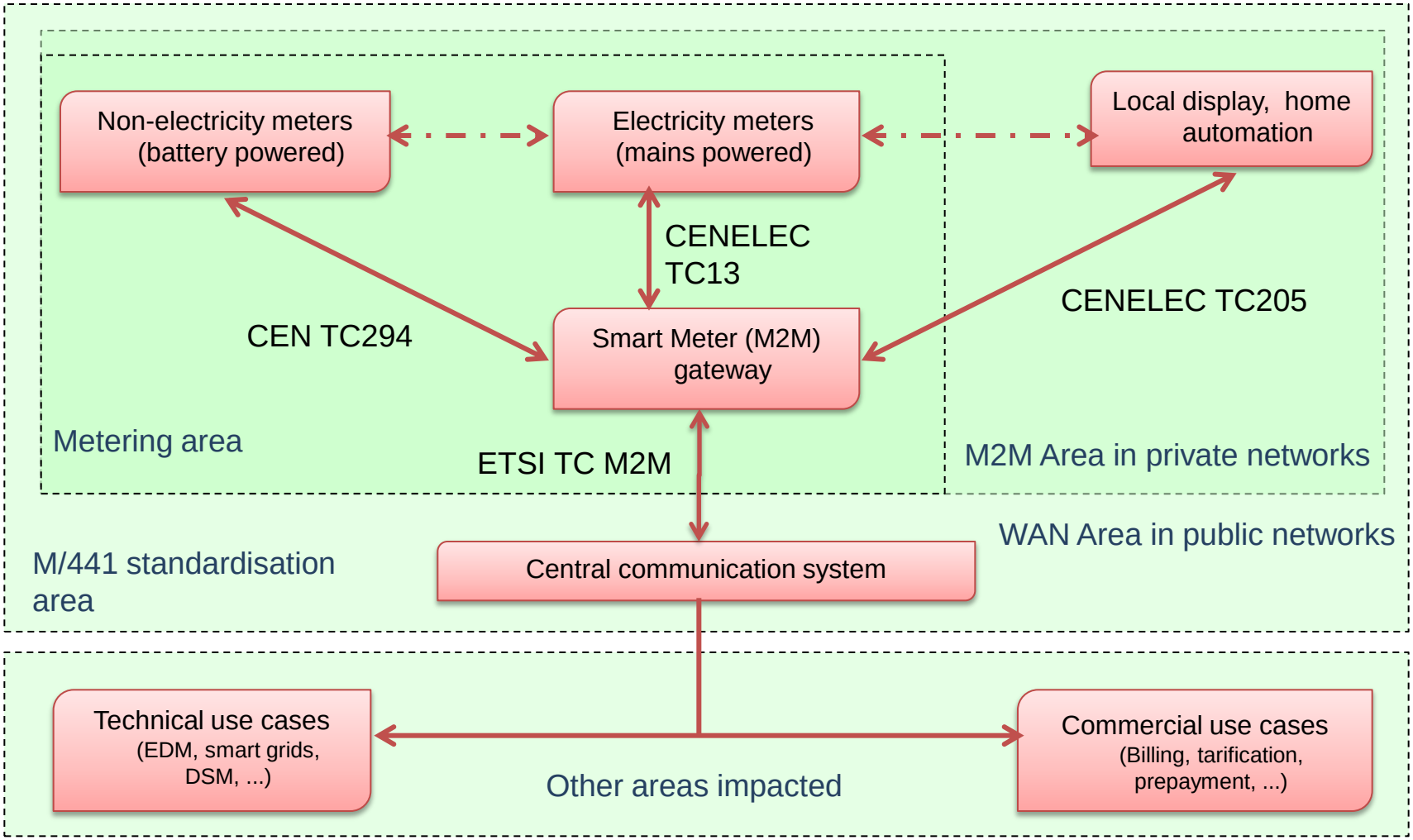
ESMIG
EUROPEAN SMART METERING INDUSTRY GROUP

ABB
accenture
High performance. Delivered.
CINTERION
a Gemalto company
CISCO
DIEHL Metering
ECHELON
ELGAMA ELEKTRONIKA
elster
EMH metering
ENERGYICT
GÖRLITZ
:hager
IBM
ISKRAEMECO
Itron
Knowledge to Shape Your Future
JANZ
Kamstrup
Landis+Gyr
manage energy better
NAVETAS
Energy Management
OPENTEXT
THE CONTENT EXPERTS
ORACLE
UTILITIES
PROLAN
RTX
SAGEMCOM
SAP
SECURE
SENSUS
The Measure of the Future
SIEMENS
SIERRA WIRELESS
Sigma Telas
Telit wireless solutions
Making machines talk.
TOSHIBA
Leading Innovation
T
vodafone
ZIV

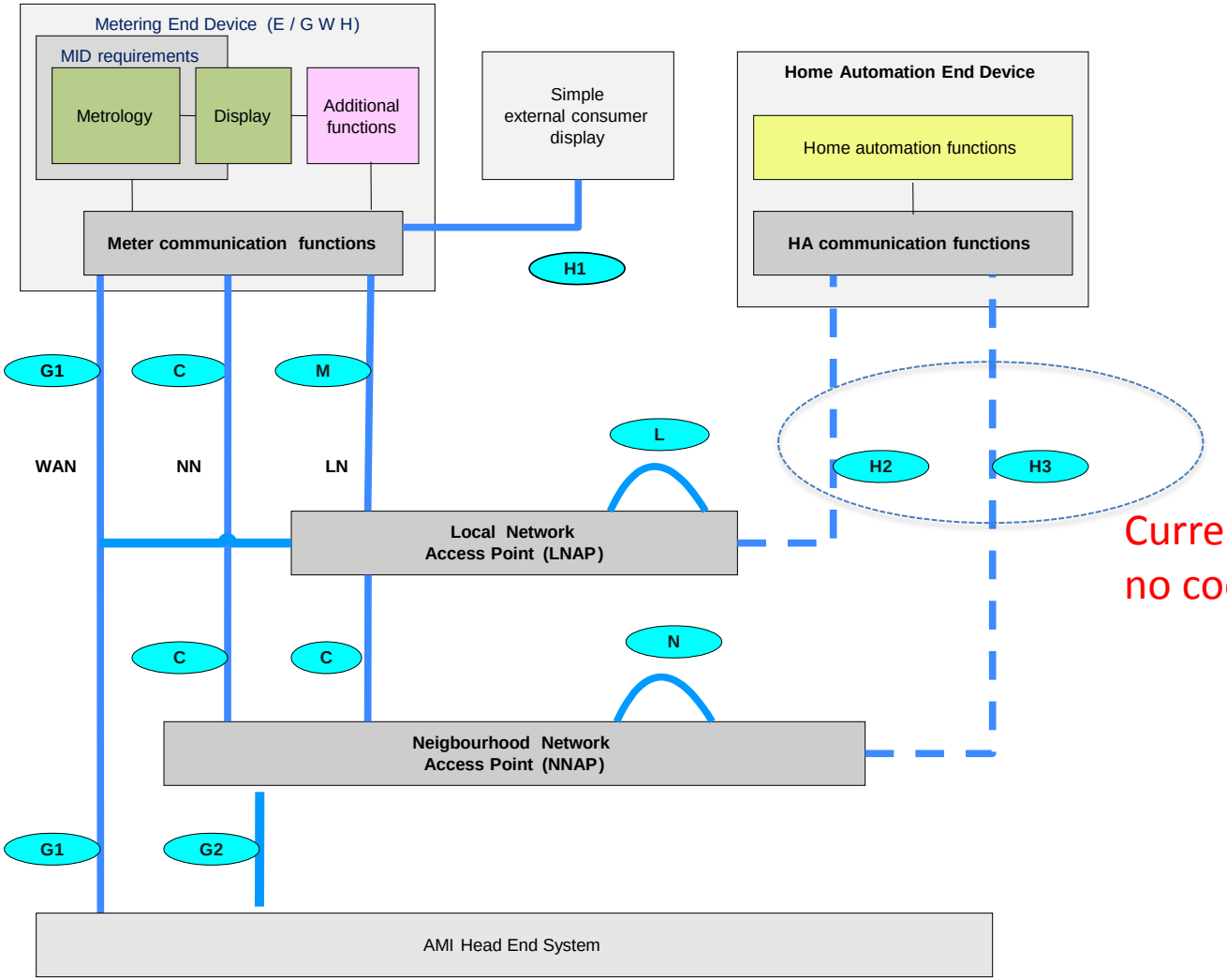
Contents

- **Standards - SM-CG**
- Interoperability

Communication standards responsibilities allocation for M441



Reference Architecture



Currently no coordination

Technical report main content

- **Reference Architecture** – function blocks and interfaces
- **Descriptions** - of function blocks and interfaces
- **List of standards** – per identified interface

- **Annex A** – Repository of Use Cases
- **Annex B** – Glossary: list of commonly used terms (Smart Meter, AMI, Gateway, Data Concentrator, PLC, Use Case, etc.)

Contents

- Standards - SM-CG
- **Interoperability**

Interoperability

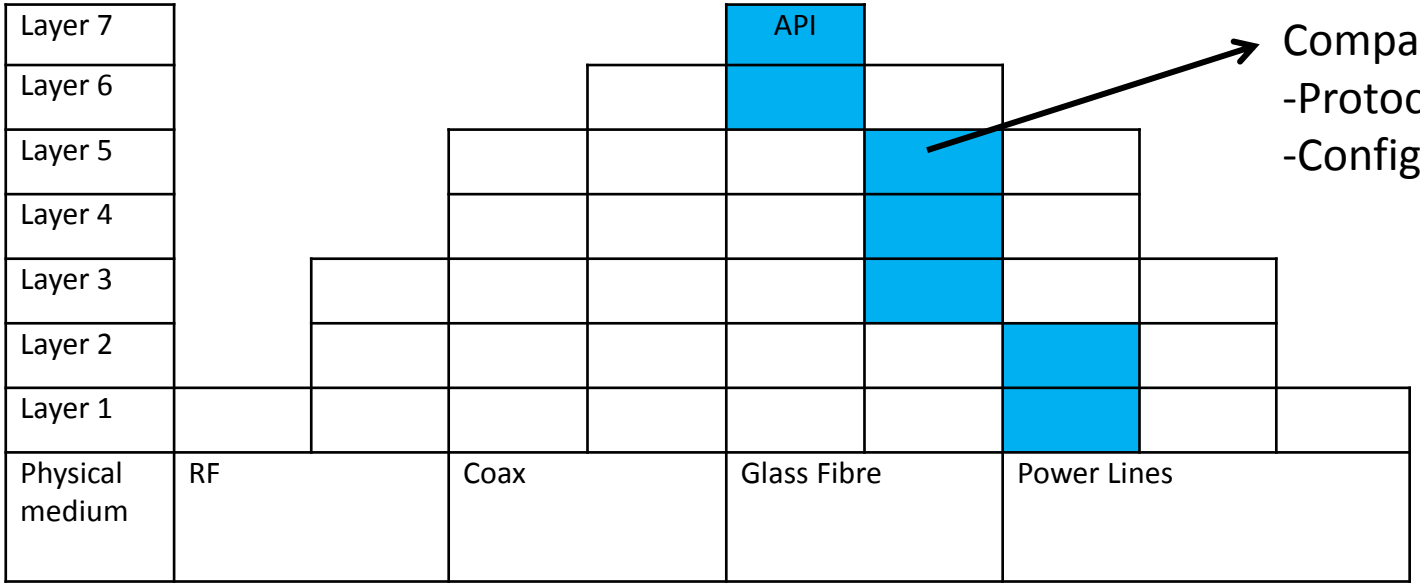
- Sufficient standards are available
- Choices have to be made
  - Which standards
  - Which part of standards
- Options have to be fixed
- Functional behavior has to be defined

The ESMIG hourglass model

Domain Business Processes

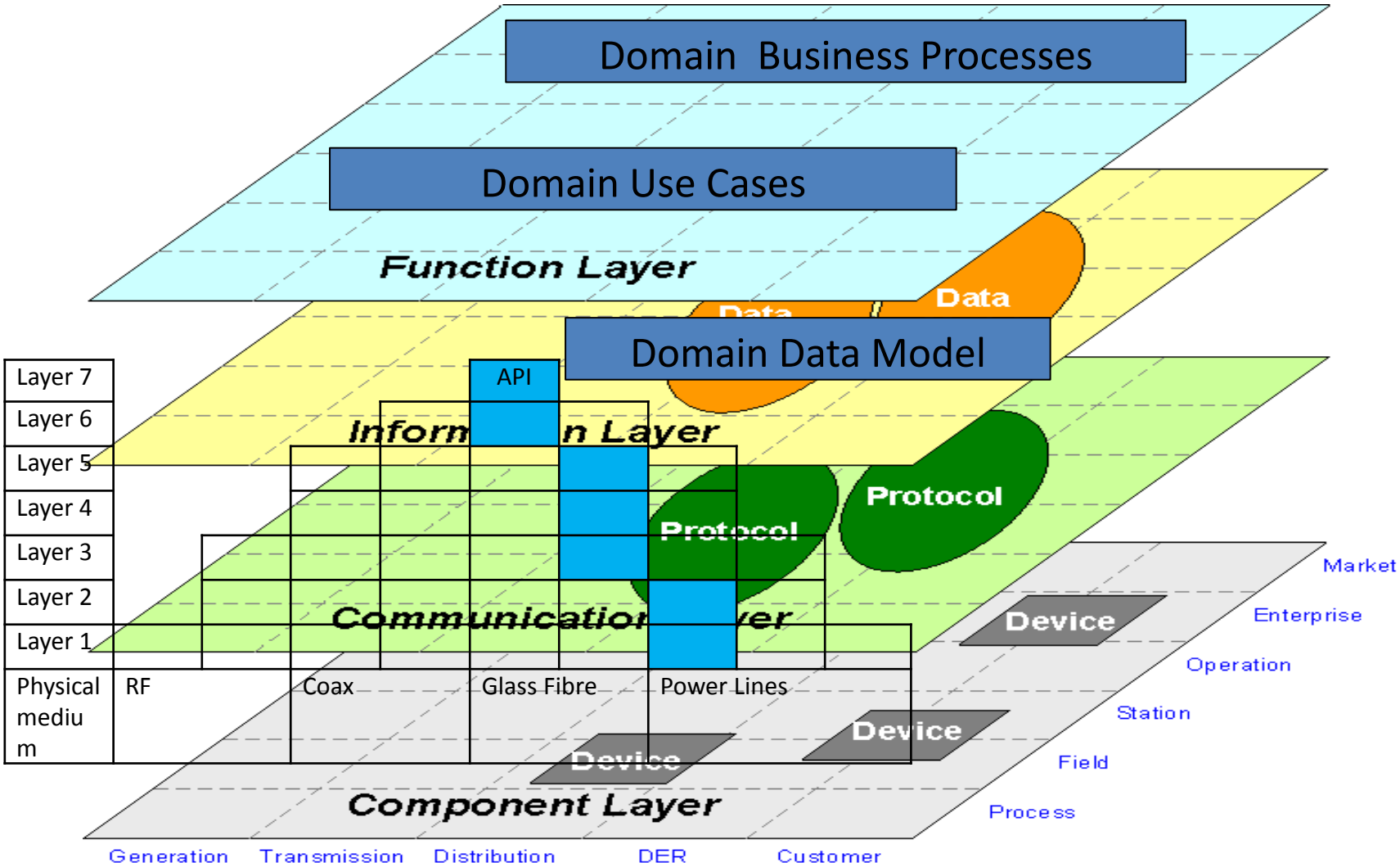
Domain Use Cases

Domain Data Model



Companion Standard:
-Protocol stack
-Configurations

Mapping on the SGCG architectural model



Definition of Use Cases

- Currently several member states are creating Use Case definitions
  - Netherlands : DSMR
  - Germany: OMS
  - UK: SMDG

- These definitions comprise:
  - the functional behaviour of communication, including error situations;
  - technical requirements regarding performance, security , etc.

- The SM-CG creates a European basic set based on this input

- At Smart Grid level (by the SG-CG), the SM-CG results are used as input.

SM-CG Use Cases – snap shot

Cluster	Primary Use Case	Scenario	Secondary Use Case (Core functions)
Energy market events	(Re-)Read meter as a result of 3rd party meter data request	On demand meter-read	Provide metering data
		Get data directly from HES/MDM	
	Consumer moves	Consumer moves in	Provide metering data
			Connect supply
		Consumer moves out	Provide metering data
			Disconnect supply
	Consumer changes supplier		Provide metering data
			Set meter parameters

Conclusions

- Standardisation is on its way and will never stop
- The SM-CG created a standard architecture and identified the related standards;
- In order to reach interoparability, additional specifications have to be created
- Among them are Use Cases

For more information

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