

TOWARDS COMPLEMENTARITY OF EUMED MARKET PROFILE AND EUMED METERING PROFILE

IEEE workshop
Standardization of Private Data in Energy Markets

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CEN/CLC/ETSI CG-SEG
IEC TC57, TC8, SC8B, SyC SE

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Agenda

- European Context : Associations, Standard organisations & Regulation
- Complementarity of EUMED Market and EUMED Metering
- Conclusion and next steps

Some Key European Organisations



European National Regulatory Authorities in the Energy area



Standardisation & user groups landscape

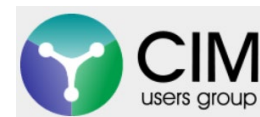
General Standardisation



Electrotechnical Standardisation



Telecommunication Standardisation



European Commission

9 INDUSTRY-LED EUROPEAN TECHNOLOGY AND INNOVATION PLATFORMS



An Interconnected Electricity Market

Development of network codes, guidelines, and standards

Connection Codes

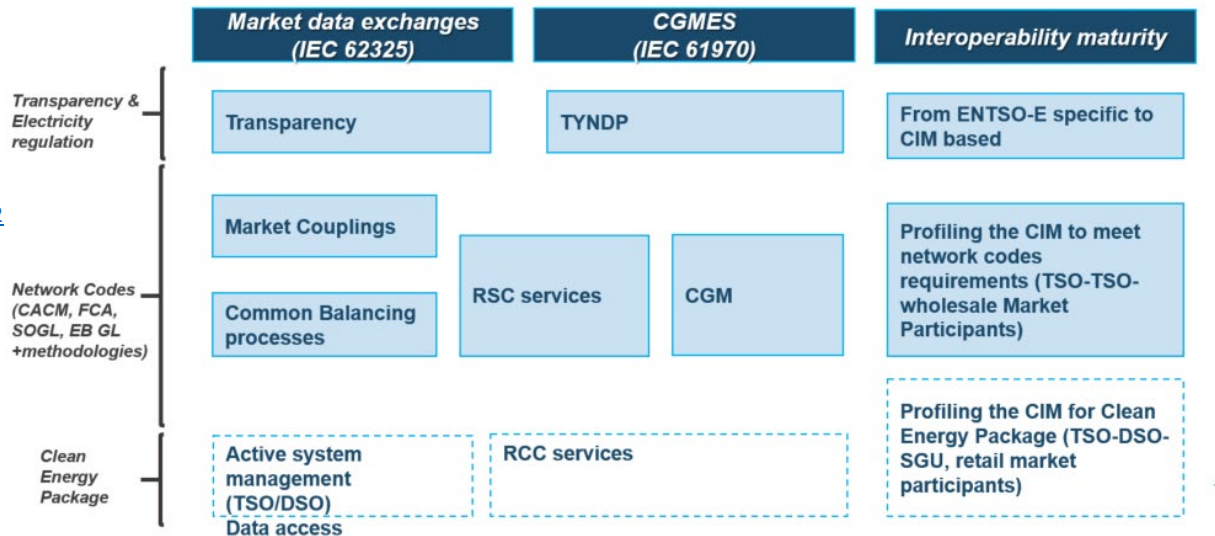
- [Demand Connection \(EU\) 2016/1388](#)
- [High-voltage direct current connections \(EU\) 2016/1447](#)
- [Requirements for generators \(EU\) 2016/631](#)

Market and trading guidelines

- [Capacity Allocation and Congestion Management \(EU\) 2015/1222](#)
- [Forward Capacity Allocation Regulation \(EU\) 2016/1719](#)
- [Electricity Balancing \(EU\) 2017/2195](#)

Operation Codes

- [Emergency and restoration \(EU\) 2017/2196](#)
- [System Operation \(EU\) 2017/1485](#)



Coordination Group on Smart Energy Grids



SEG-CG Report
 Final Report of the Working Group Clean Energy Package (WG-CEP)
 v04.03
 Date: 2019-10-22



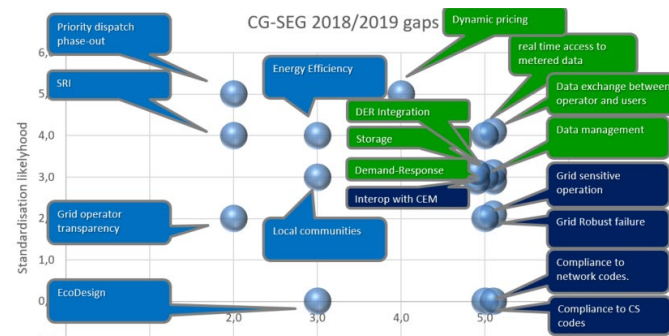
Regulatory domains	Regulation	Amending	Status
Electricity market design and security of supply	Proposal for a revised Electricity Market Regulation	714/2009	Published on 2019-06-05 under Directive (EU) 2019/943
	Proposal for a revised Electricity Market Directive	2009/72/E C	Published on 2019-06-05 under Directive (EU) 2019/944
Renewable energy	Proposal for a revised Renewable Energy Directive	2009/28/E C	Published on 2018-12-21 under Directive (EU) 2018/2001
Energy efficiency and performance	Proposal for a revised Energy Efficiency Directive	2012/27/E U	Published on 2018-12-21 under Directive (EU) 2018/2002
	Proposal for a revised Energy Performance of Buildings Directive	2010/31/E U	Published on 2018-06-19 under Directive (EU) 2018/844



CG-SEG New Standardisation Gaps ranking for the Smart Energy Grid



- Outside of Primary Focus
- Assessment Needed
- Pre-selected




IEC SRD 63199 Top priority standards development status in the domain of smart energy
 IEC TR 63097 Smart grid standardization roadmap

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EUROPEAN « MY ENERGY DATA »



ENERGY

European Commission

European Commission > Energy > Topics > Markets and consumers > Smart grids and meters > Smart grids task force

European Smart Grids Task Force
November 2016

Expert Group 1 – Standards and Interoperability

“My Energy Data”

“It **recommends** therefore that – after the publication of the European Commission Winter Package – a **European industry initiative** consisting of all interested stakeholders, such as, but not limited to manufacturers, utilities, vendors, laboratories and national regulators **is formed in early 2017** with the **aim to provide further detailed specifications on a common format for energy data interchange** under consideration of the high-level requirements provided by this report. “





European
Commission

EUROPEAN « MY ENERGY DATA »

- **Directive 2019/944** on Common rules for IME

Article 23

Article 24

Data management

Interoperability requirements and procedures for access to data



CENELEC

ETSI



CEP-EMD-1

Data Management, format and interoperability

A technical specification seems "easy" to reach and already launched as IEC 62325-451-10, however the adoption by the different stakeholders is much more difficult to get, because of the already in place solutions.



IEC 62325-451-10 (IS 2020) : My Energy Data, Use case Download My Data

EUROPEAN « MY ENERGY DATA »



H2020 Flexiciency
(ENEL, Enedis,
Endesa, vattenfall, ...)

ENTSO-E
CIM
Market

Flexiciency
EUMED
2016

EUMED-CIM
T1 2017

EUMED
METERING

IntervalBlock
IntervalReading

European
MyEnergyData
CENELEC
NWIP T1 2017

EUMED
MARKET

TimeSeries

European
MyEnergyData
MARKET
IS
IEC 62325-451-
10

European
MyEnergyData
METERING
IEC 61968-9-x
?

Is based on

Is based on

Is based on

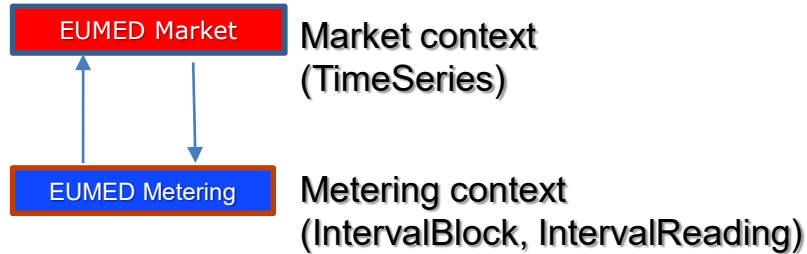
Is based on

2017

2020

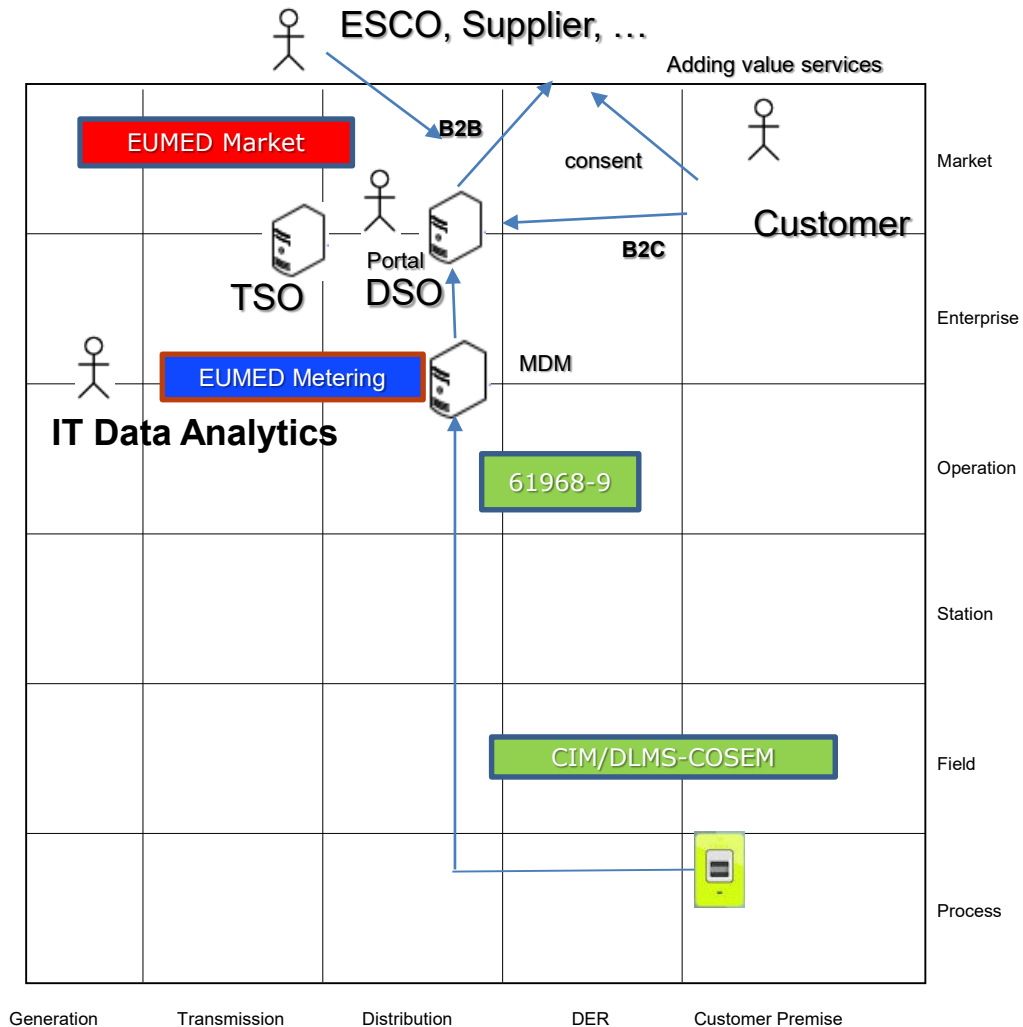
2021

SGAM EUMED CIM

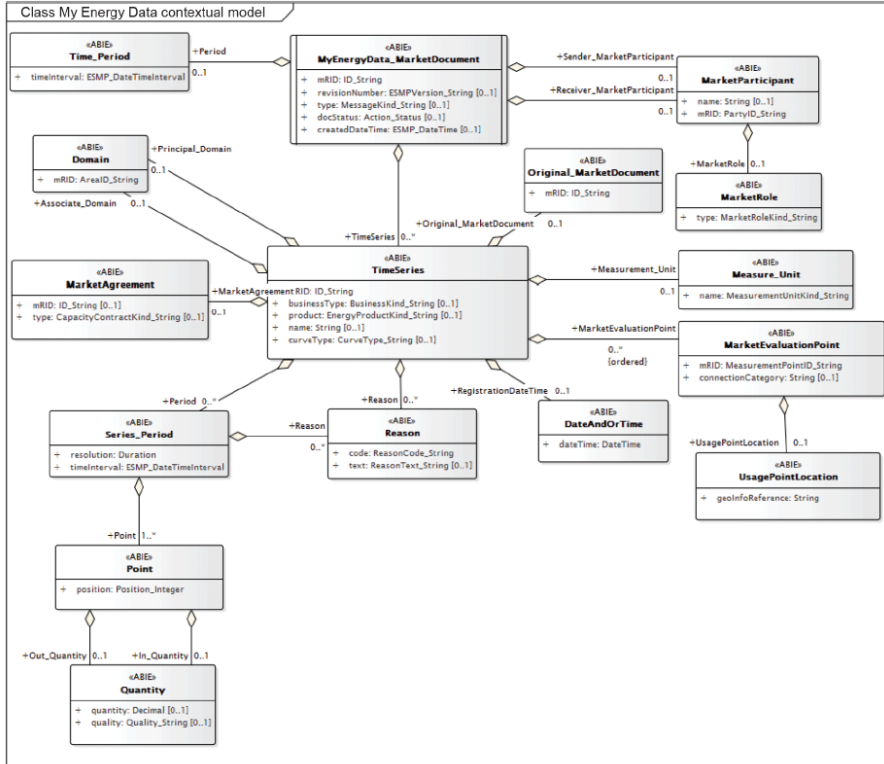


- **Contextual usage**
EUMED Market associated to a **Market Domain** context (Genericity and flexibility)

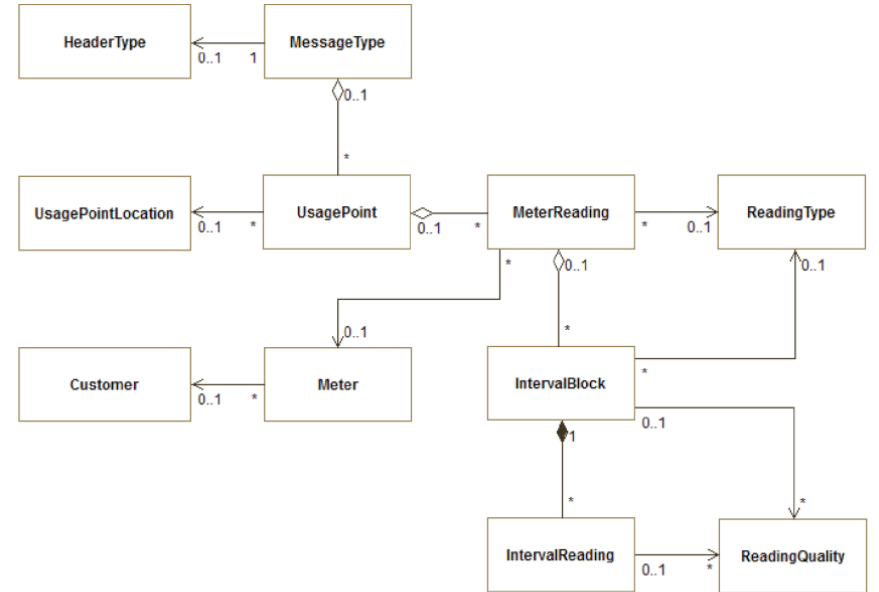
EUMED Metering close to a **Metering Domain & IT Systems** context, close to My Energy Data European context
- **Users of the profiles**
EUMED Market : TimeSeries fit for **Market participant** information exchanges
EUMED Metering : Series of time stamped valued fitting **Digital Users i.e IT teams doing Data Analytics**
- EUMED Metering is closer to US GreenButton than EUMED Market



EUMED Market and EUMED Metering (1/2)



IEC

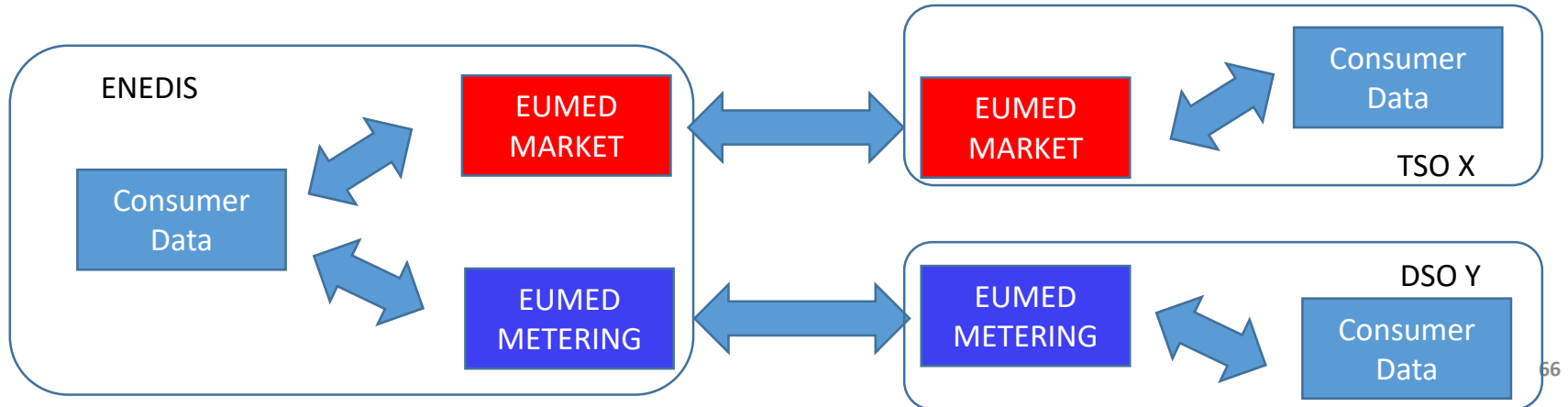


IEC

Figure B.1 - EUMED Metering object diagram

EUMED Market and EUMED Metering (2/2)

- Alignment on a same CIM version
 - EUMED Metering based on CIM17v38
 - EUMED Market based on CIM17v38 & ESMP4v04
- Tooling usage
 - EUMED Metering -> used Modсарus 2.4
 - EUMED Market -> used CIMSyntaxGen 2.4.5
- Example of using EUMED Market and/or EUMED Metering



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Conclusion



- **EUMED Metering Profile** is **ready** for a new IEC standardization document to complement **EUMED Market Profile**



- **Portability** between **EUMED Metering** and **EUMED Market** has been tested
 - Compliancy tests could be foreseen
 - Interoperability tests could be foreseen (European, International)



- **On-going work started at International level (IEC TC57 WG14)**

Thanks for your attention

Questions ?

