

Common Grid Model and Operational Planning Data environment (OPDE) concepts and development

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System Operation European Stakeholder Committee
14 March 2017

From SOGL/CACM requirements to implementation by all TSOs and RSCs

SOGL (/CACM)

Operational planning activities to be coordinated
RSCs to provide 5 services based on CGM
All data shared in a common OP Data Environment (OPDE)
Common format definition

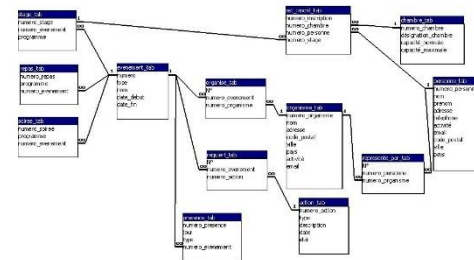
CGM Methodology

Data quality controls
CGMA (Alignment of Net Positions) service
...

Applications & general services



Merging function



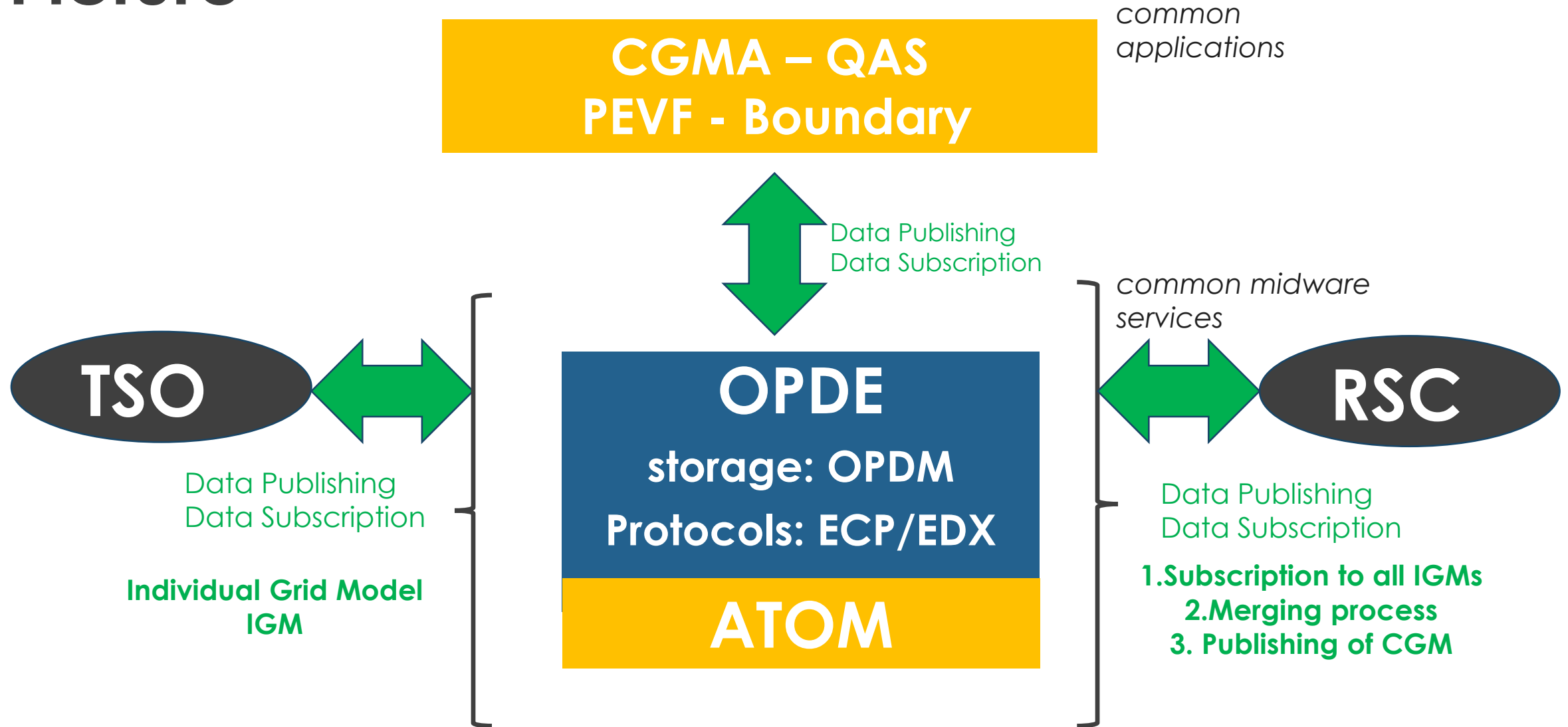
CGMES 2.4



Reliable & secure network

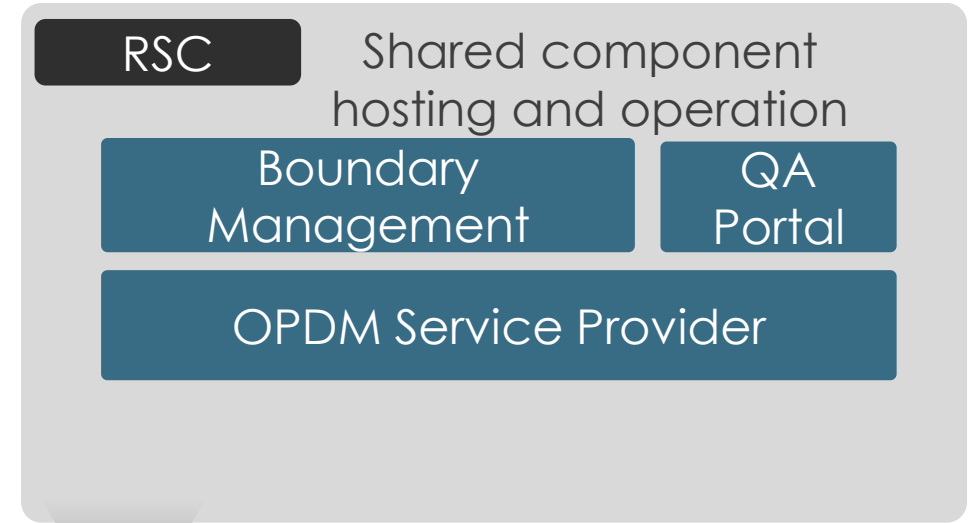
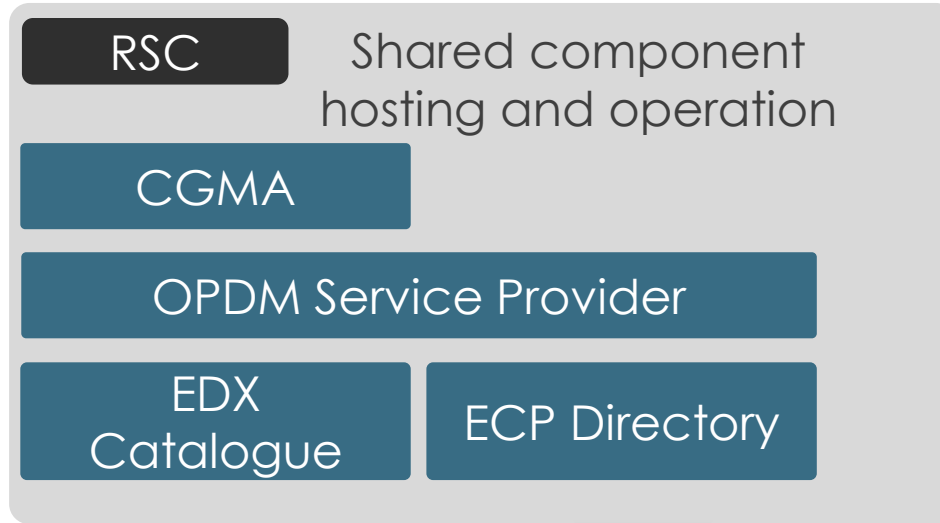


Data Exchange & Services Conceptual Picture

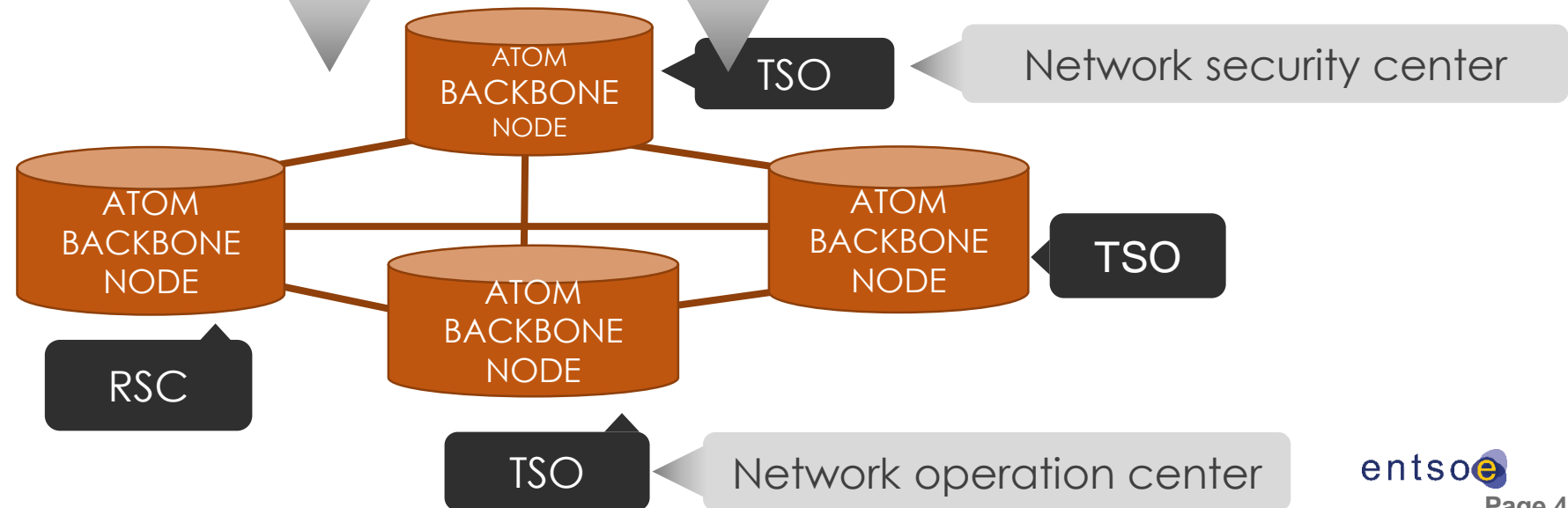


OPDE and ATOM Service Providers

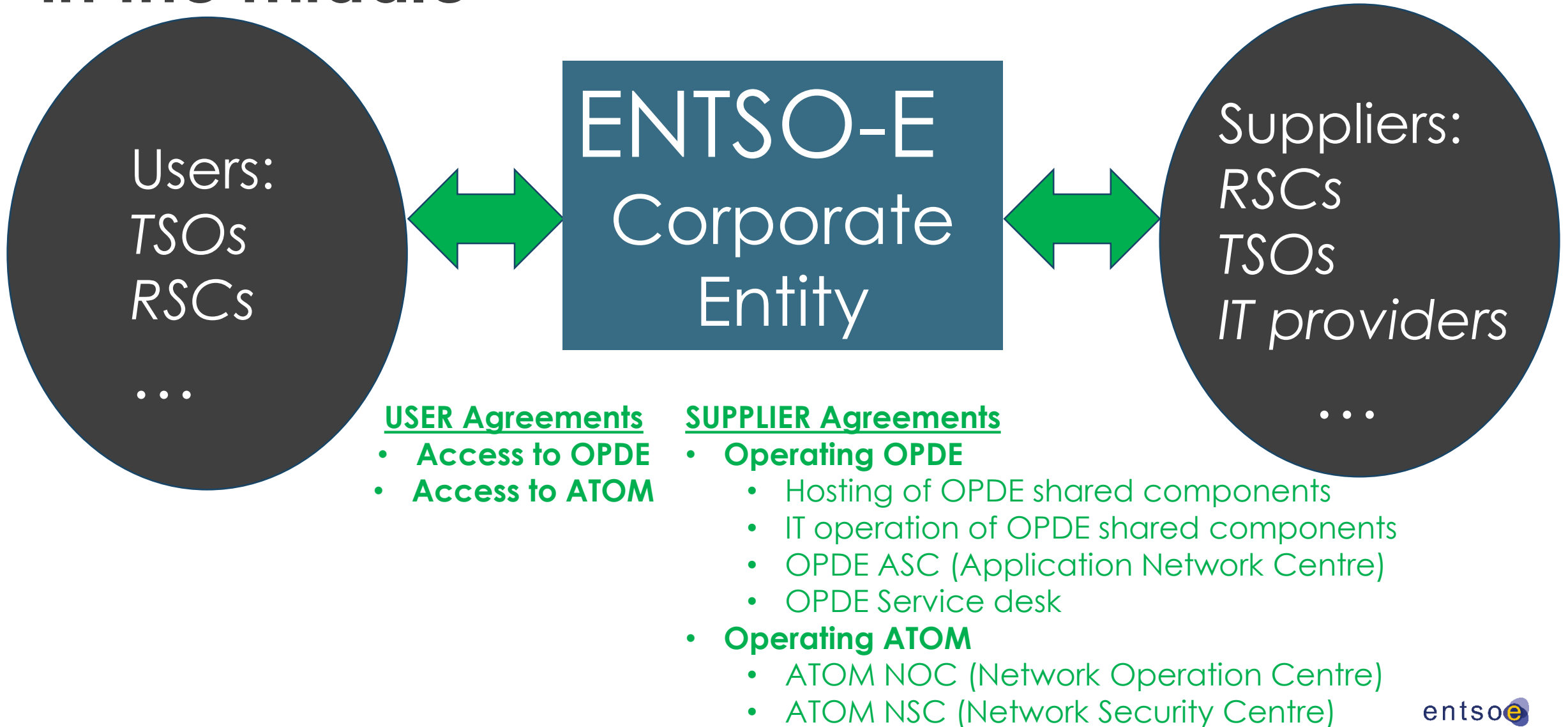
APPLI- CATION (OPDE)



NETWORK



Contract framework :ENTSO-E – Legal Party in the middle



CGM-OPDE Program Phases: current planned milestones

	13 January 2017	11 December 2017	11 June 2018	
	Development Phase	Transition Phase	Stability Phase	Operational Phase
Develop software, Services and the ATOM network	TSO's/RSC's connect to OPDE/ ATOM	Parallel run of UCTE + CGMES of 6 months (RGCE only)	CGMES used for pan-European operational services	
All TSO's/RSC's Implement CGMES	Test processes, optimize (individual) connections/ process	CGMES provided for operational purposes, fallback to UCTE format possible		
Set up of the ATOM/OPDE design and contract	Hybrid merging (RG CE only)	Users of CGMES data get used to new data format in operational processes		

THANK YOU FOR
YOUR ATTENTION

Jean-Philippe Paul

PG Coordinated Security Analysis Convenor
RTE

System Operation Framework* Implementation Activities

Tahir Kapetanovic

System Operation European Stakeholder Committee
14 March 2017

* *System Operation Guideline and Network Code Emergency & Restoration*

KEY IMPLEMENTATION ACTIVITIES

... RSCs & REPORTING

IMPLEMENTATION*

Data exchange, § 40(6)

Min. inertia study per SA, § 39(3)(a)

Y-1 outage planning scenarios, § 65

YA/DA/ID CGM from IGM, §§ 67(1), 70(1)

Operational security analysis method., § 75

Short/medium term adequacy, § 81

Outage coordination methodology, § 84

Synchronous area agreements, § 118

Determination of LFC blocks, § 141(2)

Min. FCR activation in CE & Nordic, § 156(10-11)

* SO Guideline only, because ER is Network Code hence no „implementation“ after its entering into force

RSCs*



* A large part of SO GL implementation – subject to NRAs approval – is prepared through rollout of 5 standard services by the Regional Security Coordinators

REPORTING

SO GL ICS Report, § 15

LFC Report § 16

RSC Report § 17

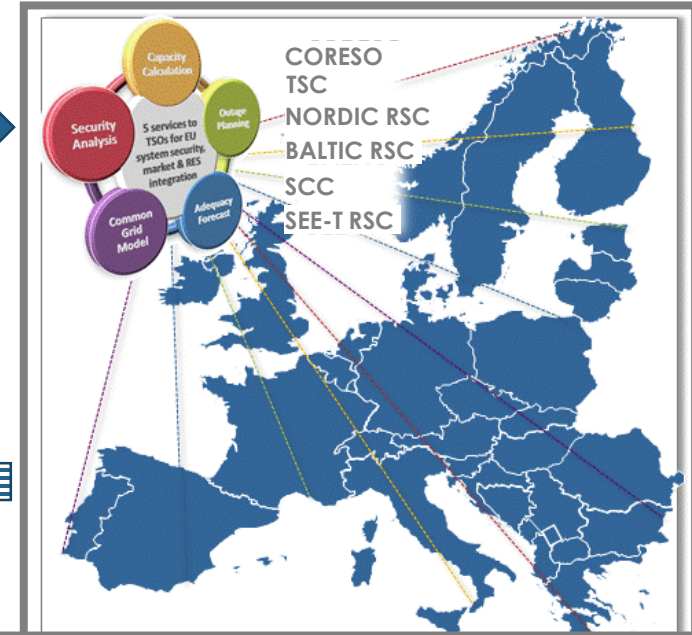
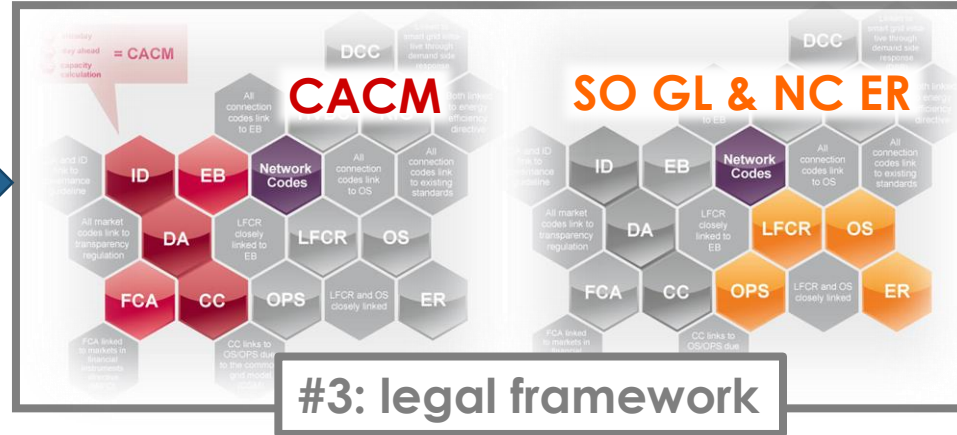
NC ER RSC on TSOs defence & restoration plans, § 6(3)

ENTSO-E on market suspension consistency, § 36

RSC „WHATABOUTS“

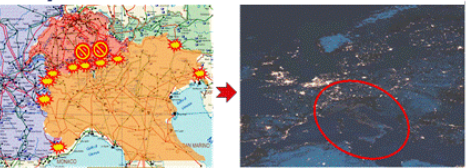
#2: contract

All TSOs' MLA
12/2015



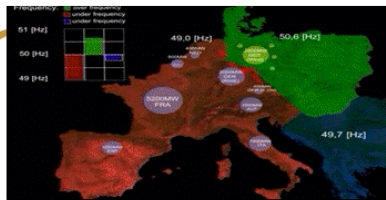
„Dry summer“ 2005 with supply interruptions and disturbances in GB, FR, DE

Italy blackout 28.09.2003



Summer 2002 in Scandinavia (peak load in Norway covered by demand side response since 1996)

UCTE System-Split 04.11.2006



Growing volatility of market and renewables since 2006

Effective measures and coordination needed

- Operational practice: Regional Security Coordination Initiatives since 2008
- Framework: System Operation Codes / Guidelines expected in 2017

#1: „trigger“ in the past

#5: Possible future enhancements of:
operational planning, balancing,
long-term adequacy, network
planning*

PRELIMINARY TIMELINE

2017

2018

2019

5 6 7 8 9 10 11 12 1 2 3 4 5 6 7 8 9 10 11 12 1 2 3 4 5 6 7 8 9 10 11 12

Timeline including NRA approval

Data exchange, § 40(6)



Min. inertia study per SA, § 39(3)(a)



Y-1 outage planning scenarios, § 65



YA/DA/ID CGM, §§ 67(1),70(1)



Oper. security analysis method., § 75



Short/medium term adequacy, § 81

no methodology approval, but rollout as 1 of 5 RSC services

Outage coordination methodology, § 84



Synchronous area agreements, § 118



Determ. of LFC blocks, §141(2)



Min. FCR activation in CE & Nordic, §156(10-11)



LEGEND

- SO GL EIF
- Public consultation / WS
- Stakeholder workshop
- Delivery by TSOs/ENTSO-E
- Approval by NRAs

Proposal of min. activation period

1st rpt due

SO GL ICS Report, § 15
 LFC Report § 16
 RSC Report § 17

09/2019

NC ER

RSC on TSOs defence & restoration plans, § 6(3) → **09/2019**
 ENTSO-E on market suspension consistency, § 36 → **09/2020**

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