



*SERVICE ORIENTED GRID FOR THE NETWORK OF THE
FUTURE*

SOGNO – Business Models, Standards & Regulations

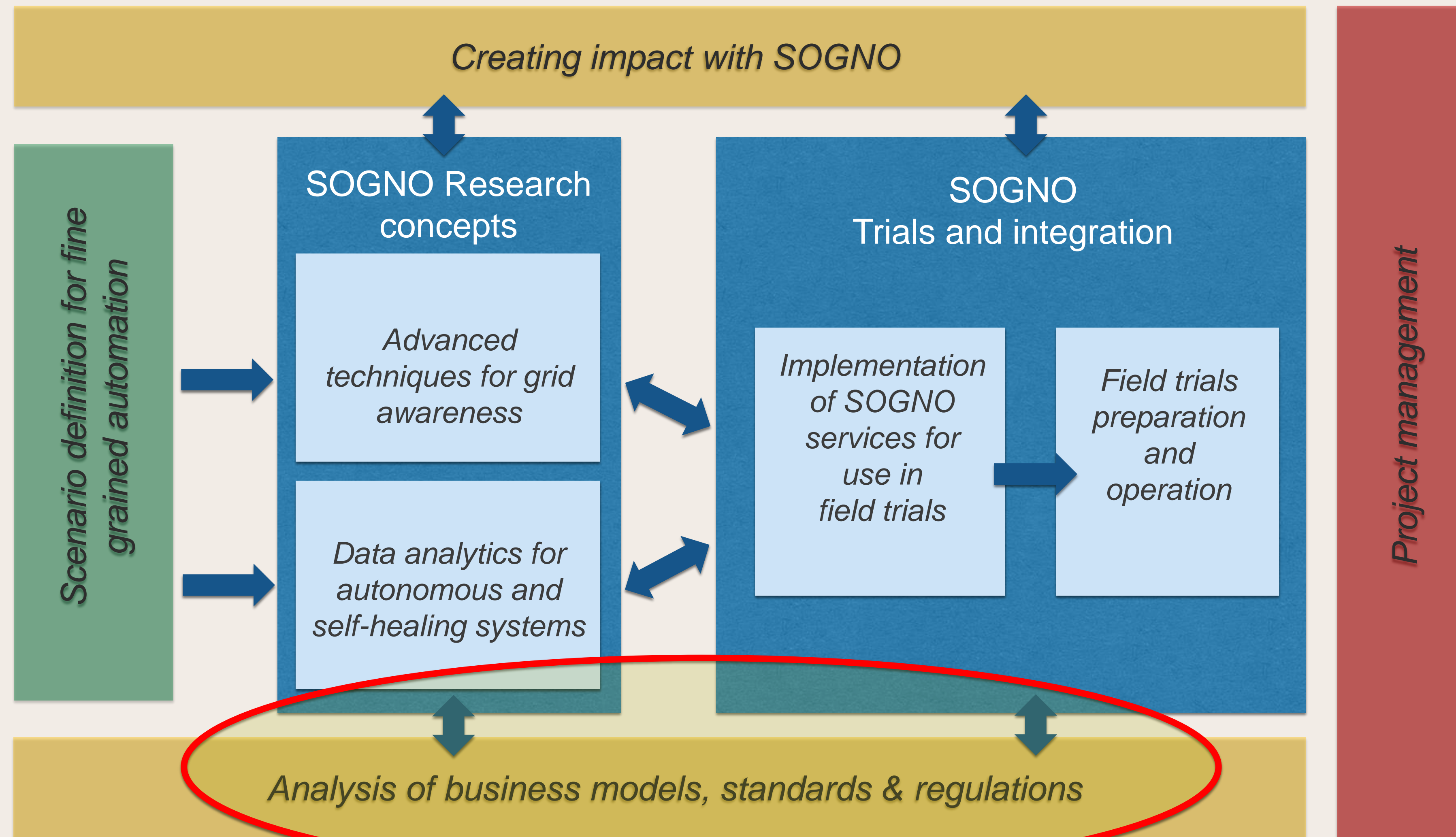
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Vice-President

Romanian Energy Center - CRE

SOGNO Overview

Subtitle



Outline

1. Business models and value chain design
2. Impact on standards and regulations
3. Achievements and next steps

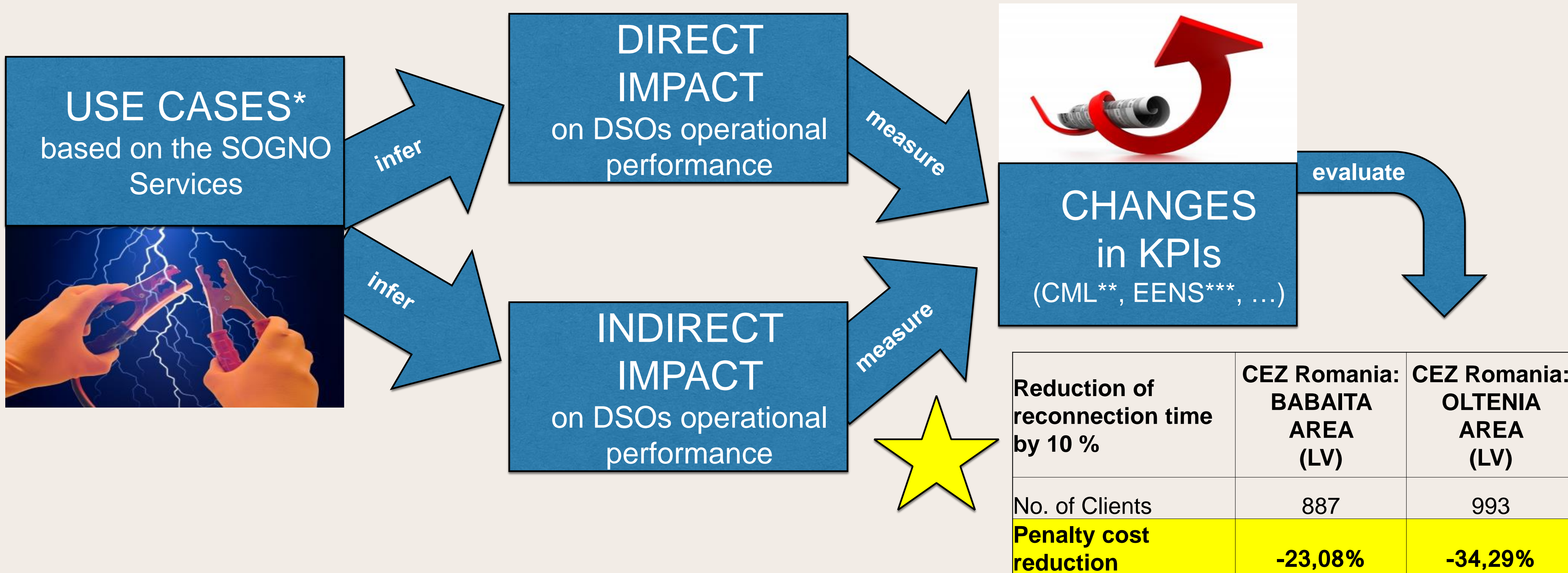


- 1. Business Models and value chain design**
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Economic Value Assessment - Working process



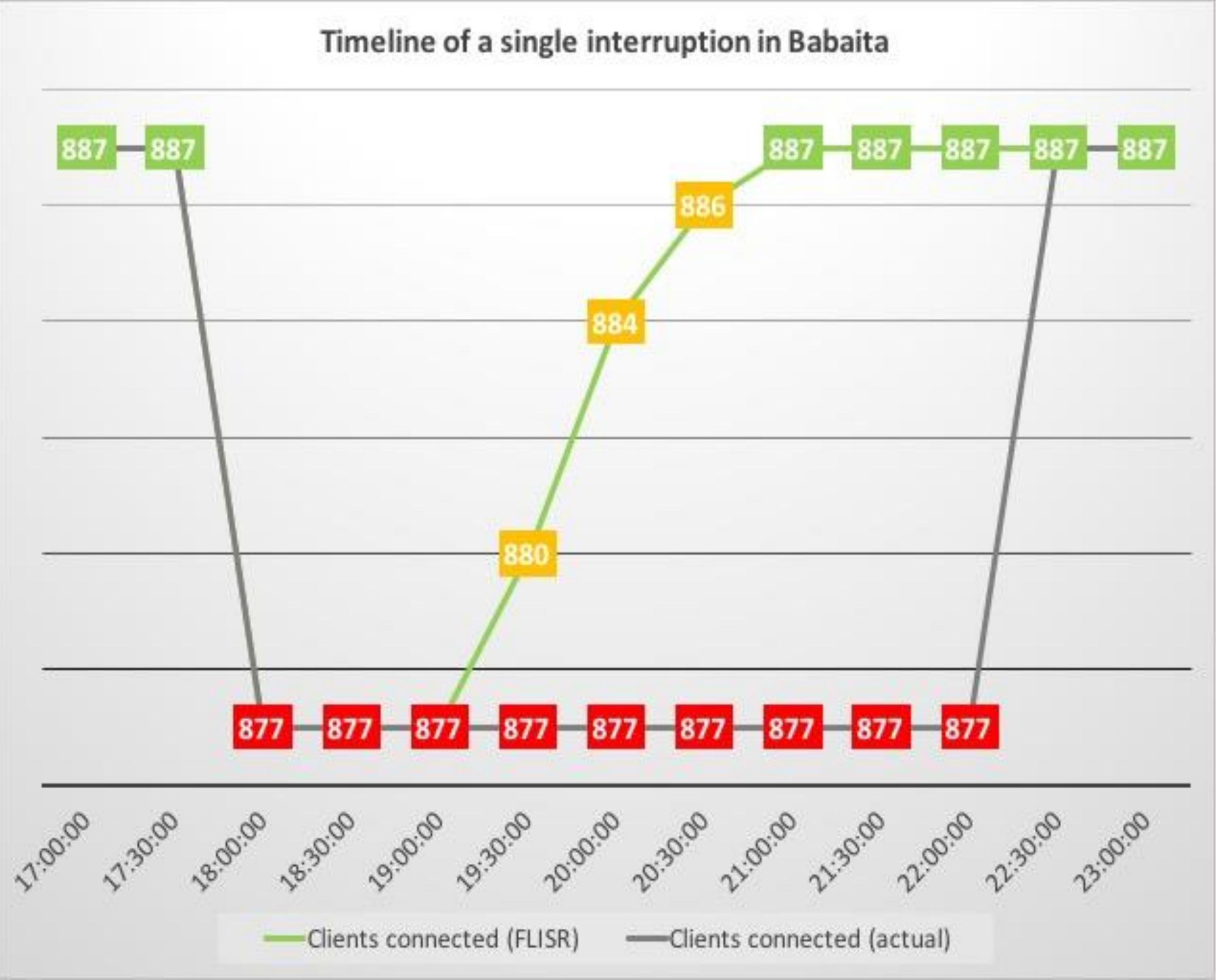
From Use Cases to Economic Value



Economic Value Assessment *(illustrated by the example of FLISR)*



Fault Location Isolation and Service Restoration



Region in Romania	Babaita	Oltenia	Babaita	Oltenia
Grid Level	LV	LV	MV	MV
Interruptions (No. / year)	124	90	64	24
	Penalty Cost	Penalty Cost	Penalty Cost	Penalty Cost
Average	-17.39%	-33.24%	-32.77%	-54.54%
Standard Deviation	6.69%	13.77%	43.95%	24.91%



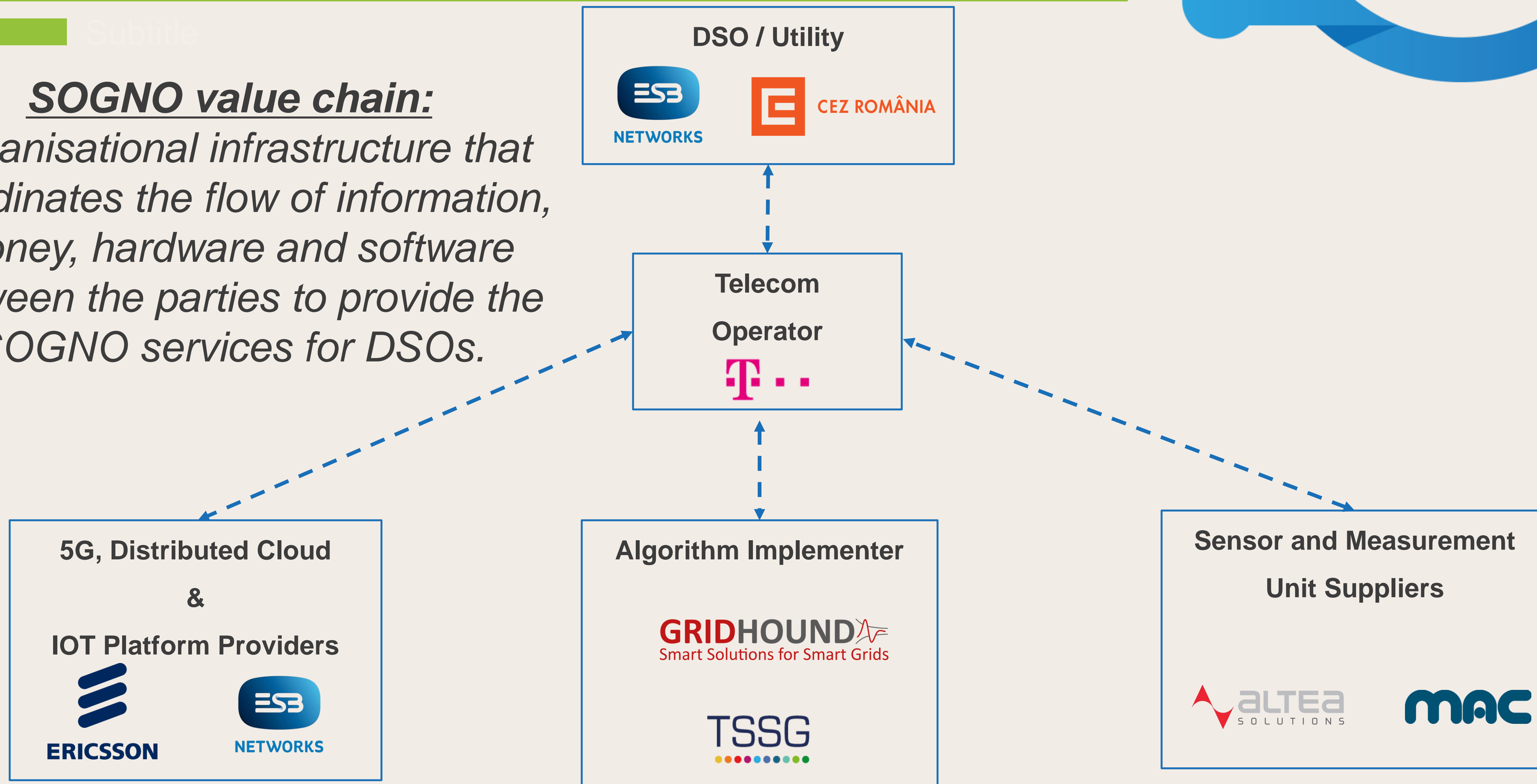
SOGNO New Value Chain Design



Subtitle

SOGNO value chain:

Organisational infrastructure that coordinates the flow of information, money, hardware and software between the parties to provide the SOGNO services for DSOs.



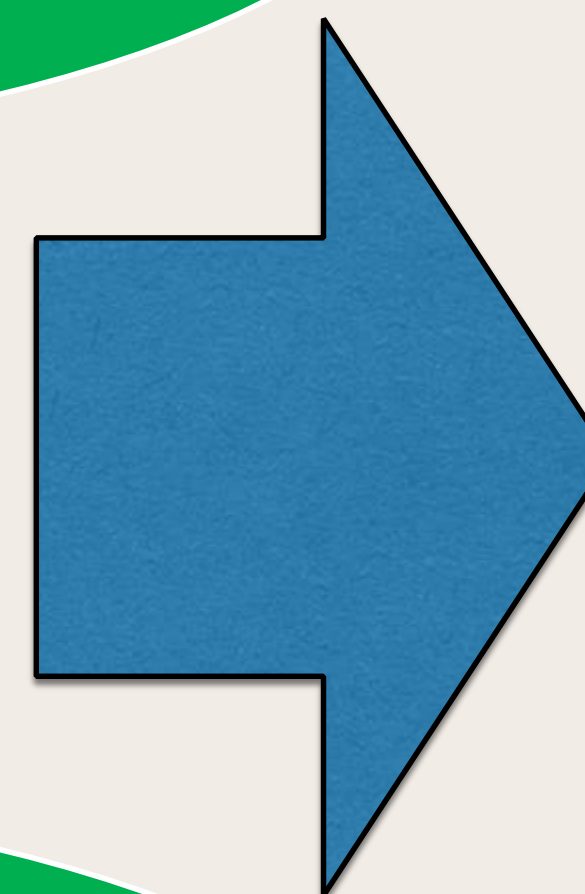
1. Business models and value chain design
- 2. Impact on standards and regulations**
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Breaking new territories on the EU reg. framework

Subtitle



Incentives for cloud based
services implementation –
OPEX related

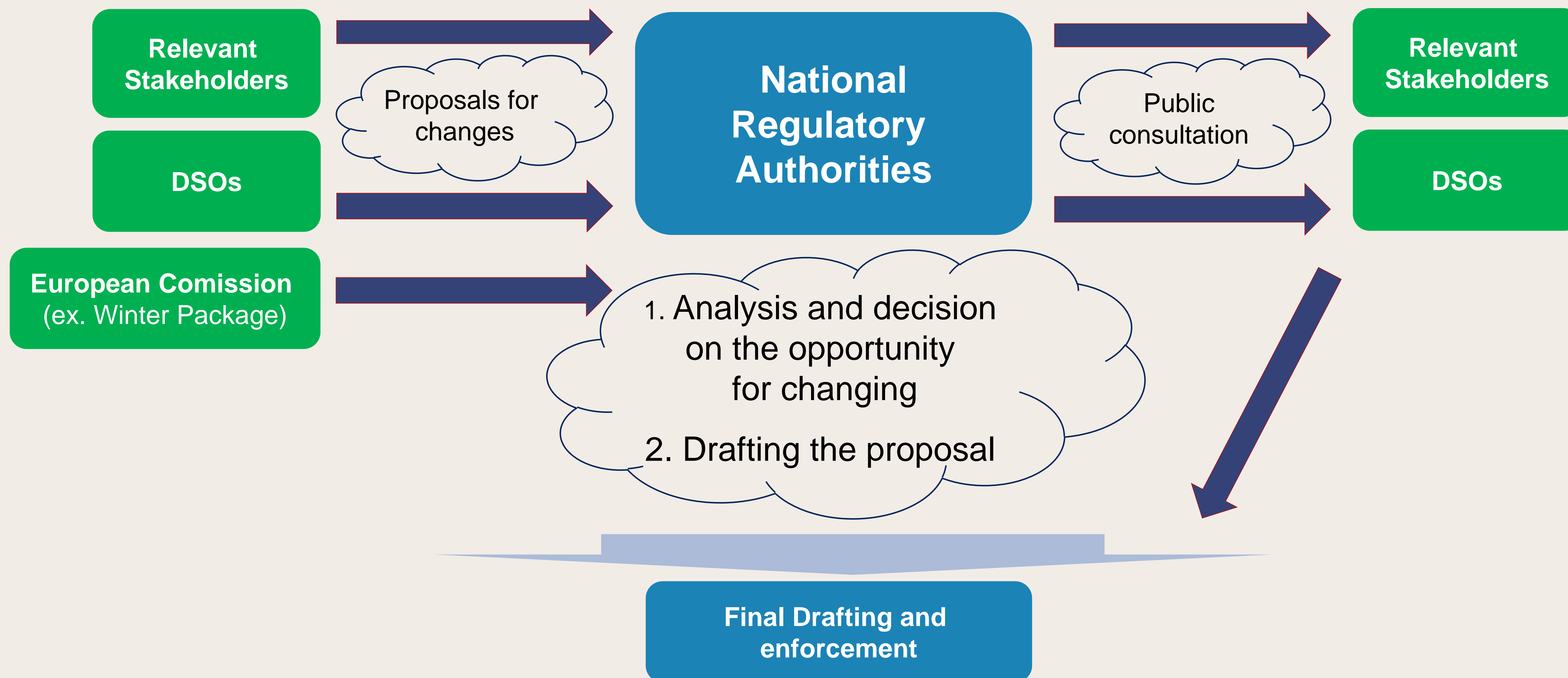


CAPEX optimization (peak
shaving, congestion
management, etc.)

Supporting
TOTEX
(CAPEX + OPEX)

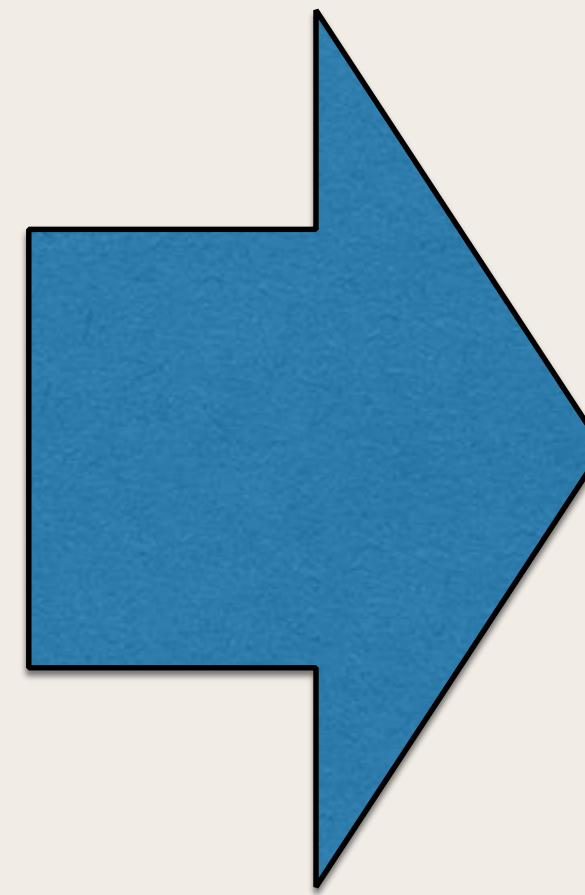
Process for Updating the NCs for Distribution Systems

Subtitle



Supporting SOGNO services implementation

- State Estimation (SE)
- Power Quality Evaluation (PQ)
- Power Control (PC)
- Fault Location Isolation and Service Restoration (FLISR)
- Load and Generation Forecasting (LGF)



Policies to incentivize

- Cloud based services implementation
- Sensors acquisition for better insights regarding electricity grid status
- Implementation of faster and more reliable data transmission solutions



Consultations with stakeholders in 2018

Subtitle

**SOGNO workshop
– Bucharest**

**Bilateral meeting:
Romanian Energy
Center - ANRE**



**SOGNO workshop -
Brussels**

**Workshop - Romanian
Energy Center – ACER
Vienna**

European Commission, European Professional & Sectoral Associations (EDSO, EURELECTRIC), DSOs, TSOs, Agency for the Cooperation of Energy Regulators (ACER), Romanian Regulatory Authority (ANRE), Representatives of academic and business environment

SOGNO OUTCOME: EC supporting TOTEX approach

Subtitle



“As it is”
Supporting
CAPEX:
Incentives for
investments in
physical assets

- OPEX – “Cost of Services” not supported at all
- CAPEX – “Cost of Investments” not properly supported: development of the network in order to respond to “peak values”

TOTEX approach

EC recommendation from
“Winter package”: The
Regulatory framework **to**
support OPEX –
cost of services



Subtitle

NEW ICT Chapter in Distribution NCs Needed

Extended deployment of distributed generation

Many DSOs without an IT Dept.

More insights regarding Network Operation needed

**DIGITALISATION
– ICT Cloud
based Services**



Small and large DSOs – significant different needs?

Subtitle

The same type
of operating
license for
small & large
DSOs

Small DSO

“Aggregator”
profile

Large DSO

“TSOs”
profile



Are different types of
Operating License
for Small and Large DSOs
Needed?

1. Business models and value chain design
2. Impact on standards and regulations
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Done

In Progress

To be done

- **Evaluation Business Model definition** to determine the economic value of SOGNO service utilisation
- **Identification of regulatory aspects** affecting SOGNO service diffusion
- **Obtaining the EC recommendation for supporting “cost of service”**
- **Validation of the preliminary assumptions & results** by proving the feasibility of the defined Business Models through calculating penalty costs reduction
- **Determination of the economic value** of SOGNO service utilisation for different national regulatory frameworks
- **Further consultations** with stakeholders & feedback collection
- **Critical assessment** of the **environmental and social value** emerging as a consequence of SOGNO service utilisation; development of CSR guidelines & recommendations for national regulators (e. g. regulatory regimes considering the ‘total expenditures’ - TOTEX)
- **Tracking and supporting proposals for Distribution NCs changes**; creating synergies with professional and sectoral associations and other relevant European organizations to support proposals



Thank you for your attention!