

DSO ENTITY WEBINAR SERIES

**How does DSO Entity's Technical Vision match with the
EU's priorities for 2025+?**

The webinar will start at 09:30

Webinar Agenda

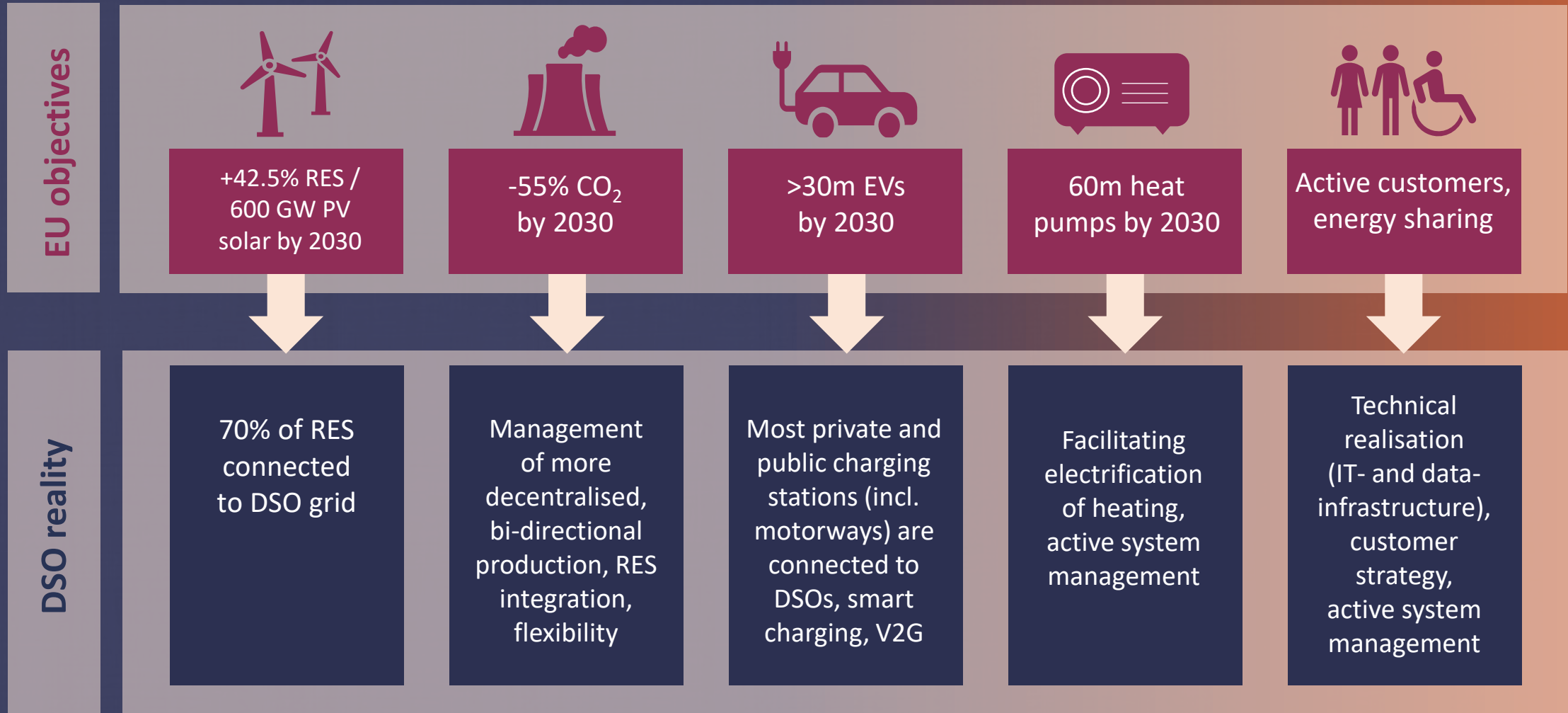
- 09:30-09:40 **Opening Remarks (Peter Vermaat, DSO Entity's Secretary General)**
- 09:40-10:00 **Presentation of the Technical Vision (Carlos Castel, DSO Entity Expert Groups and Task Forces Teamlead)**
- 10:00-10:30 **Interview-style intervention by the European Commission: Is the EU on the right path to enable DSOs to fulfil their vision? (Zuzana Sadlova, DG ENER, European Commission)**
- Moderated by: **Elisa Schenner**, DSO Entity Teamlead–Strategy, Legal & Regulatory Affairs
- 10:30-10:45 Q&A from the audience and closing



*Questions, interactions
with the audience via
the Q&A*

Future Challenges:

DSOs as the Enablers of the Energy Transition



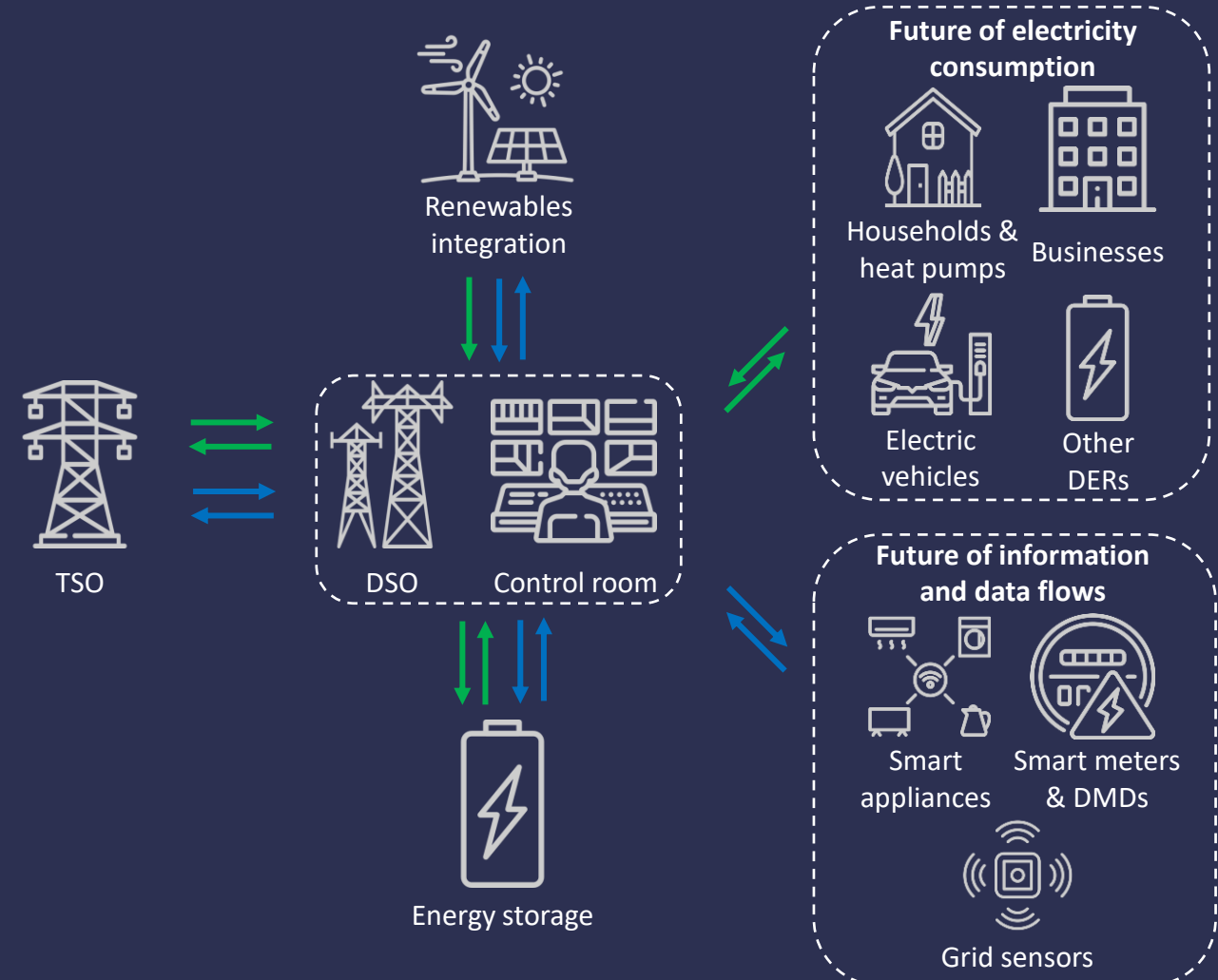
The Power System is undergoing unprecedented changes into a Decentralised and Bi-directional System

Historical Power System



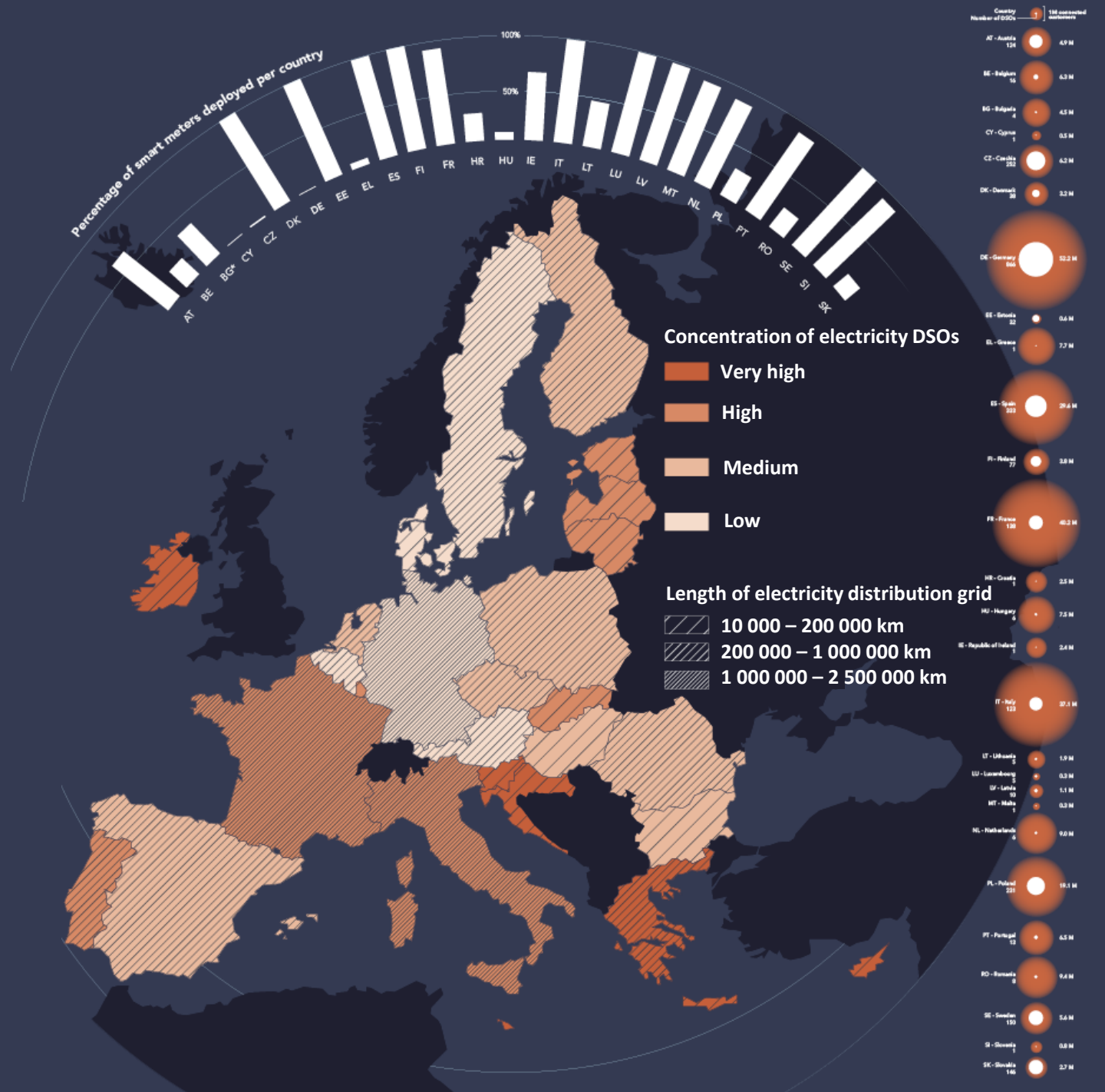
Legend
→ Electricity flow
→ Information flow

Present/Future Power System



DSO Entity Technical Vision

*Unified DSO framework
to guide a new power
system that delivers
for customers
while accounting for
DSO diversity*



What drives our Technical Vision?

Sustainability

Affordability

Reliability

Resilience



*Provide value to citizens and businesses to
strengthen European competitiveness*



DSOs core development areas to reach net-zero and serve customers



Serving Customers



Planning & Investment

Closely integrated with below areas to maximize value delivery to customers



i. Unlocking investments

ii. Network development plan

Market facilitation & Prosumers engagement



i. Flexibility

ii. Energy sharing and behind-the-meter services

Operations & Maintenance



i. Active system management

Resilience & Sustainability



i. Climate adaptation via observability and reinforcement

ii. Cybersecurity

Data & Digitalization



Digitalising the grid improves system performance and drives innovation, boost industrial growth, and strengthen Europe's competitive edge

The way forward: A Technical Vision developed following a modular approach



2024

- Development of the Technical Vision in collaboration with all DSO Entity's groups



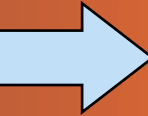
2025

- Dissemination of lessons learnt and knowledge sharing activities for the DSO community
- Continuous monitoring of industry trends



2026 & beyond

- Further development of the Technical Vision by deep-diving into specific topics and integrating it with new chapters



Call for collaboration



Increased cooperation with ENTSO-E for an efficient system operation, market integration, planning and investment.



Close collaboration with the European Commission and ACER to enable forward-looking regulatory adjustments that align the power system with society's transition towards a net-zero energy future.



Close collaboration with all system players to ensure a competitive, resilient, efficient, and customer-centric power system that reinforces Europe's industrial leadership in the global energy transition.

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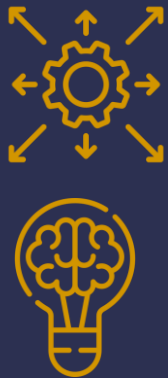
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Digitalising the grid improves system performance and drives innovation, boost industrial growth, and strengthen Europe's competitive edge

Unlocking investments: A call for smart and forward-looking approaches



Grid expansion and smartening: €55-67 billion per year on average until 2050

Identify and implement investments using an anticipatory approach


Efficient investments

Contribute to improvement of funding & forward-looking regulation



Accelerating the energy transition, enhancing competitiveness of European industry, and fostering sustained economic growth





Network development plan: A new and integrated approach to network planning to serve customers



Cross-vector energy system evolving in response to **changing patterns** and **technological progress**, increasing **uncertainty**



Data-driven DNDPs in a **coordinated** and **collaborative** approach with TSOs and other key stakeholders



Optimizing costs and facilitating the implementation of **reliable services** for customers



Flexibility: A call for a decentralised approach of the way that flexibility is handled



Integrate flexibility with
infrastructure upgrades

Flexibility is an essential component in addressing specific needs, such as **congestion management** or **system balance**

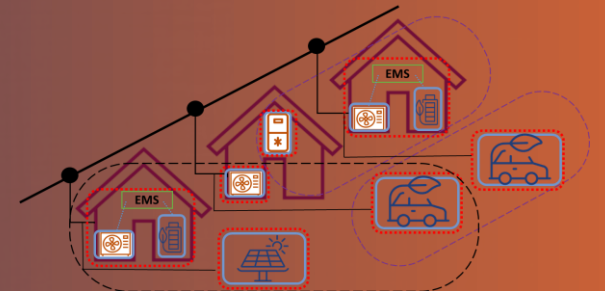


Decentralised approach toward flexibility

Cooperate with
ENTSO-E to **improve customer access to flexibility services**



Flexibility will allow all consumers to **monetise** their energy use, facilitating a **reliable system** while **avoiding unnecessary investments**



Energy sharing and behind-the-meter services: DSOs as key partners and facilitators

An increasingly decentralised energy system requires the right models to enable cost-effective and secure energy sharing

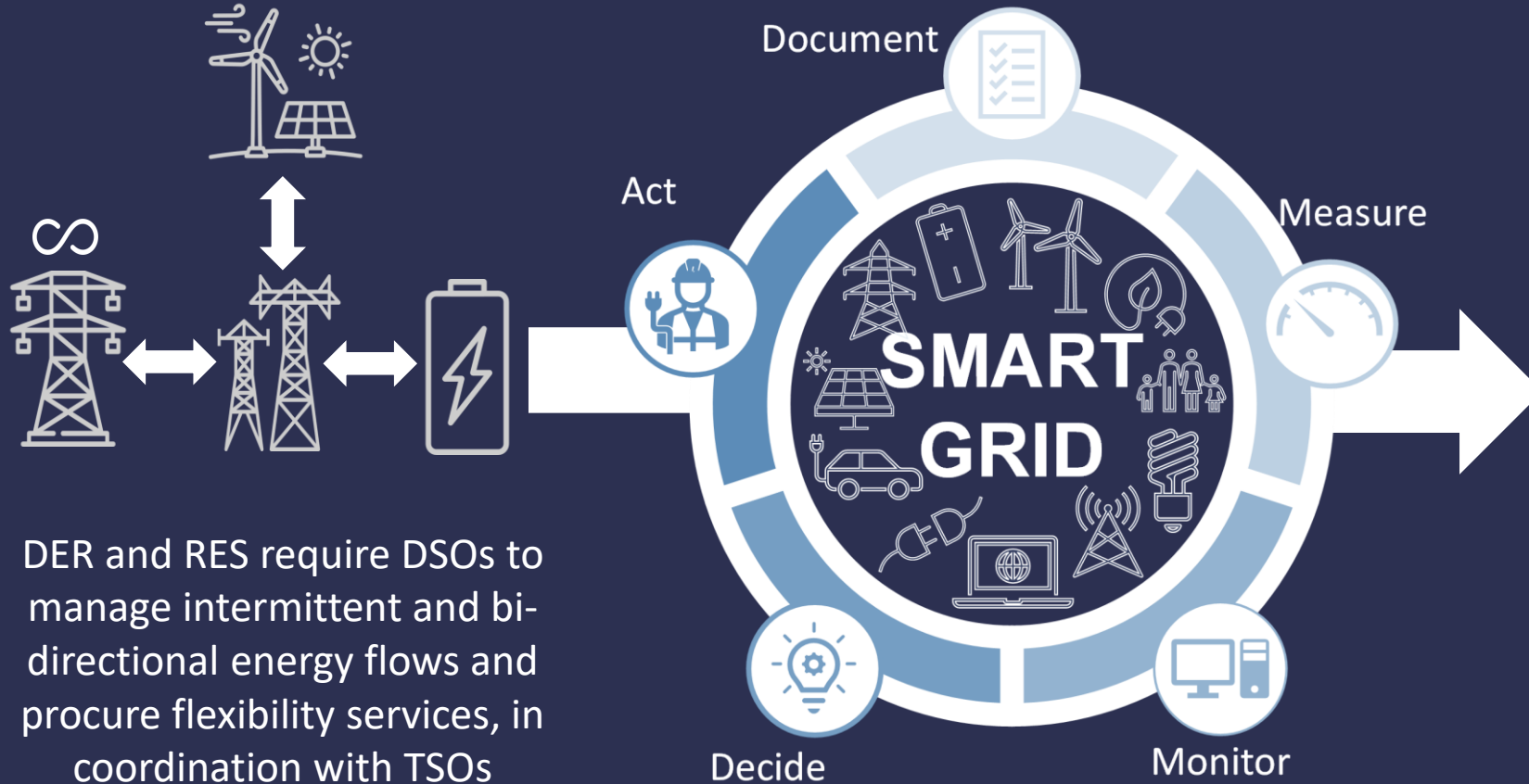


Support customers
in **navigating** a
more decentralised
energy system



Energy sharing enables
consumers to access
affordable, decarbonised
energy while facilitating
their **engagement** in
electricity markets

Active system management: Advanced monitoring technologies, data analytics, and new competencies



Adopt advanced digital technologies to enhance **monitoring, communication, control and maintenance** capabilities, to maintain a **reliable and secure power system** that integrates RES and DER, while **empowering customers to optimise energy use**

Climate adaptation via observability and reinforcement: Seamless energy supply



Extreme weather events often result in power outages in DSOs' grids. This calls for more **resilient infrastructure** and **adaptive emergency measures**



Use of **DNDPs** to improve infrastructure resilience, boost **operational efficiency** through active system management, improve **emergency response**, and advance sustainability efforts



Customers benefit from uninterrupted **access to energy** and **fast recovery** amid increasing climate-related risks

Cybersecurity: Preventing and reacting to cyberattacks and safeguarding consumers' data

Increasing integration of:



DERs



Smart
appliances



Electric
Vehicles

Amplifies:

**Vulnerabilities to cyber
threats**

**Robust cybersecurity
measures and coordinated
strategies** are needed



DSO



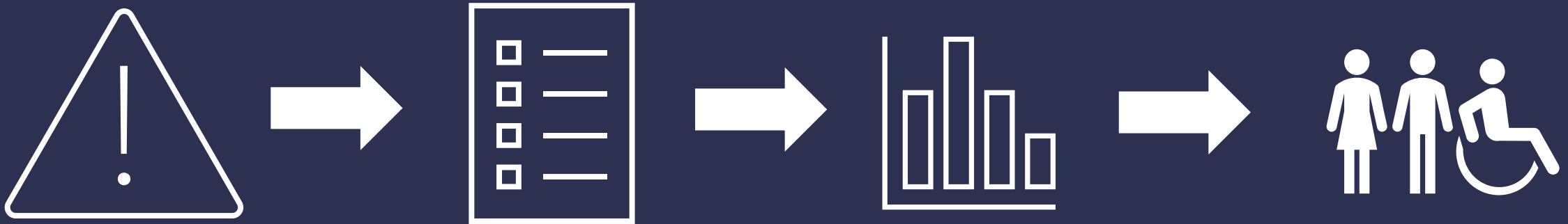
Control room

DSOs will prioritise the **implementation** of the **current regulatory framework**, ensuring that **cybersecurity standards** are **consistently applied** across the entire value chain



Robust cybersecurity protects **customer data**, ensures **reliable energy supply**, and supports the adoption of **smart technologies**

Data & Digitalization: Growing complexity of modern energy networks calling for a DSO digital data space



The increasingly **complex energy networks** require **seamless data exchange** to ensure:
Innovation, competitiveness
and **efficient collaboration**
among all stakeholders

DSOs with the support of DSO Entity will develop a **framework for interoperability** aimed at **smartening the system**

DATA AND DIGITALISATION ENABLE:

- ✓ Active participation in energy markets
- ✓ Innovative solutions
- ✓ Enhanced competitiveness

CUSTOMERS BENEFIT FROM:

- ✓ Reliable supply
- ✓ Managed costs
- ✓ Opportunities of active participation

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Areas of DSO Entity's technical vision

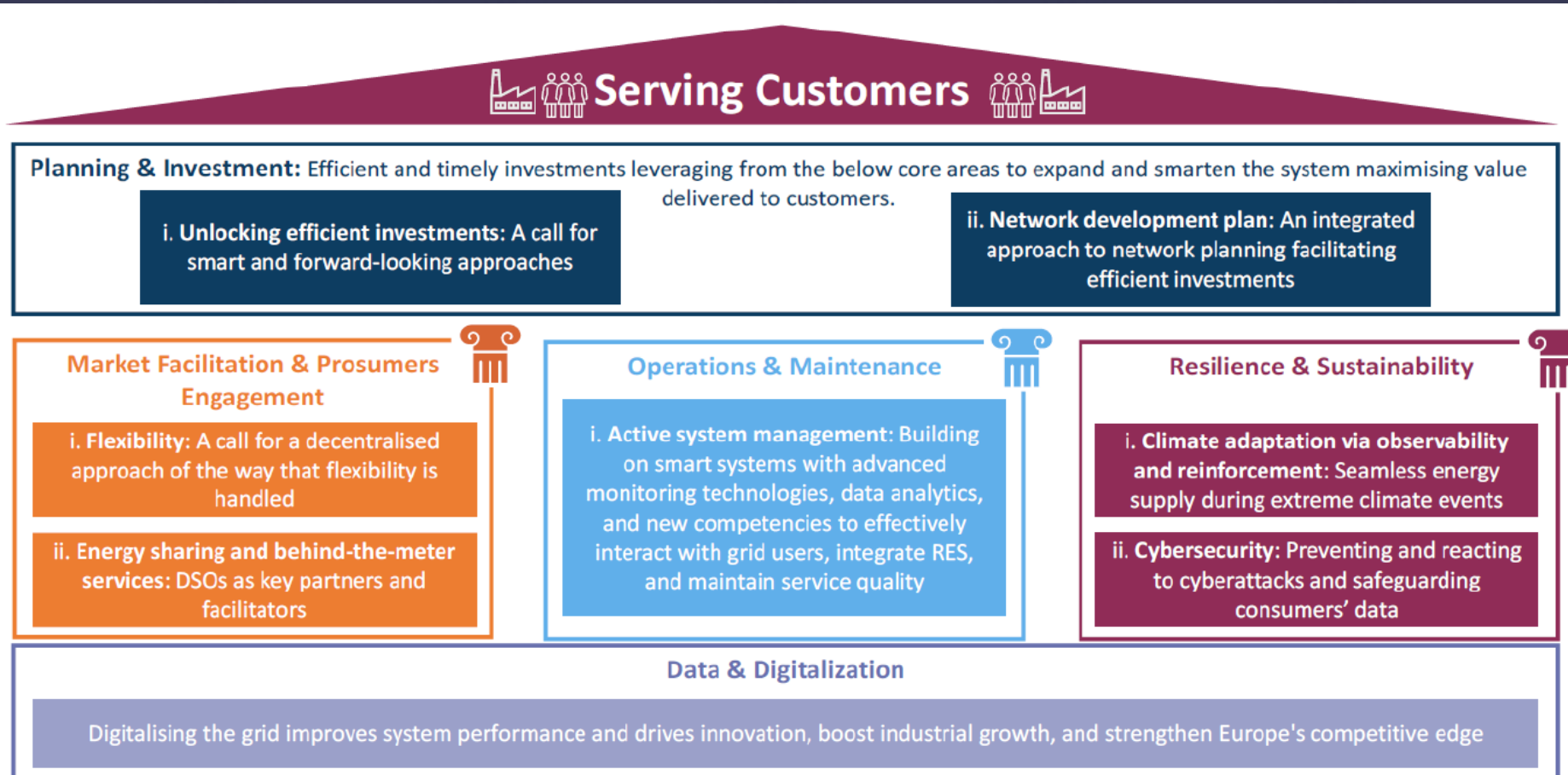


Figure 1: DSO's core development areas to reach net zero and serve customers.