



The European Green Deal and how IoT and Edge could accelerate the green transition in Europe and beyond

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Political context

Twin Green and Digital Transition
a better-functioning, smart, integrated and interconnected energy system, where new business models can easily emerge in a fast-changing market.

Commission priorities

European Green Deal

Europe Fit for the Digital Age

First climate-neutral continent by 2050

Fit-for-55 –by 2030
Renewables
energy efficiency first,
energy performance of buildings
land use, energy taxation, effort
sharing and emissions trading.

RepowerEU
key actions to drive the energy independence,
including:
“the Digitalisation of Energy Action Plan scheduled
for adoption in September will propose measures
to enhance data exchange and interoperability,
and to support the development of digital tools for
consumers”

DG CNECT actions in the 5 Areas

Data exchange framework

- Implementing Regulation on Interoperability for metering and consumption data
- Deployment of a common European energy data space

Benefits for consumers: literacy, skills, digital tools to empower citizens

- Support upskilling of Europe's workforce, to achieve Digital Decade targets
- Education and training for digital specialist in Energy (DIGITAL)



Cybersecurity

- Alignment of the Action Plan with the Directive on Security of Network and Information Systems
- Research and innovation on cybersecurity in energy through Horizon Europe

Climate Neutrality of the ICT sector

- Revision of the Code of Conduct for data centres
- Paving the way for energy labelling of data centres
- Exploring Code of Conduct for telecom operators
- Introducing energy label for computers under the framework of Eco-design and Energy labelling

Promoting investments

- Network of European Digital Innovation Hubs with focus on energy

EU programme support for the energy data space

- Horizon Europe
 - Projects establishing the grounds for Common European Energy Data Space – OMEGA-X, Data Cellar, ENERSHARE, EDDIE, SYNERGIES, IntNet
- DIGITAL programme
 - Deployment projects for data spaces including mobility, energy, agriculture
 - Data spaces Support Centre
 - Smart middleware
 - Edge and cloud services
- Connecting Europe Facility
 - Deployment of pan-European Operational Digital Platforms

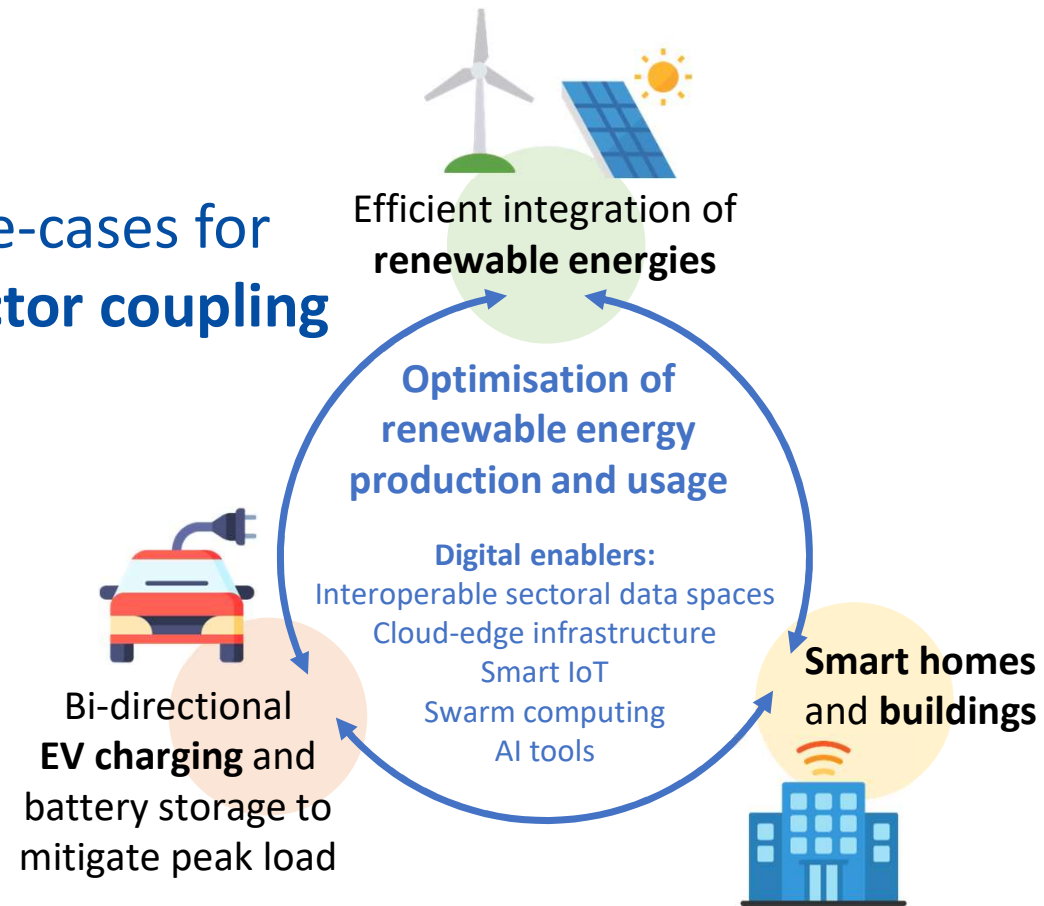
Towards interoperable data spaces

Leveraging the momentum

- **GAIA-X** - energy data space
- Converging guidelines: **Open DEI design principles for data spaces**
- **Minimum operability mechanisms**



Use-cases for sector coupling



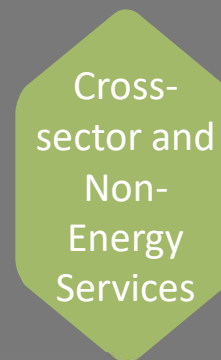
The Interoperable Interconnect Approach for Green Transition



Grid/flexibility
Renewables
GHG emissions



Energy
Services



Cross-
sector and
Non-
Energy
Services

Buildings
Appliances/devices
Evs
Etc.



interconnect

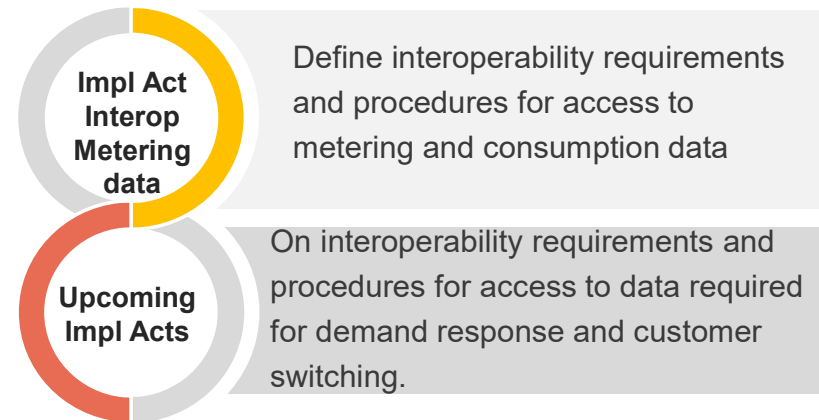
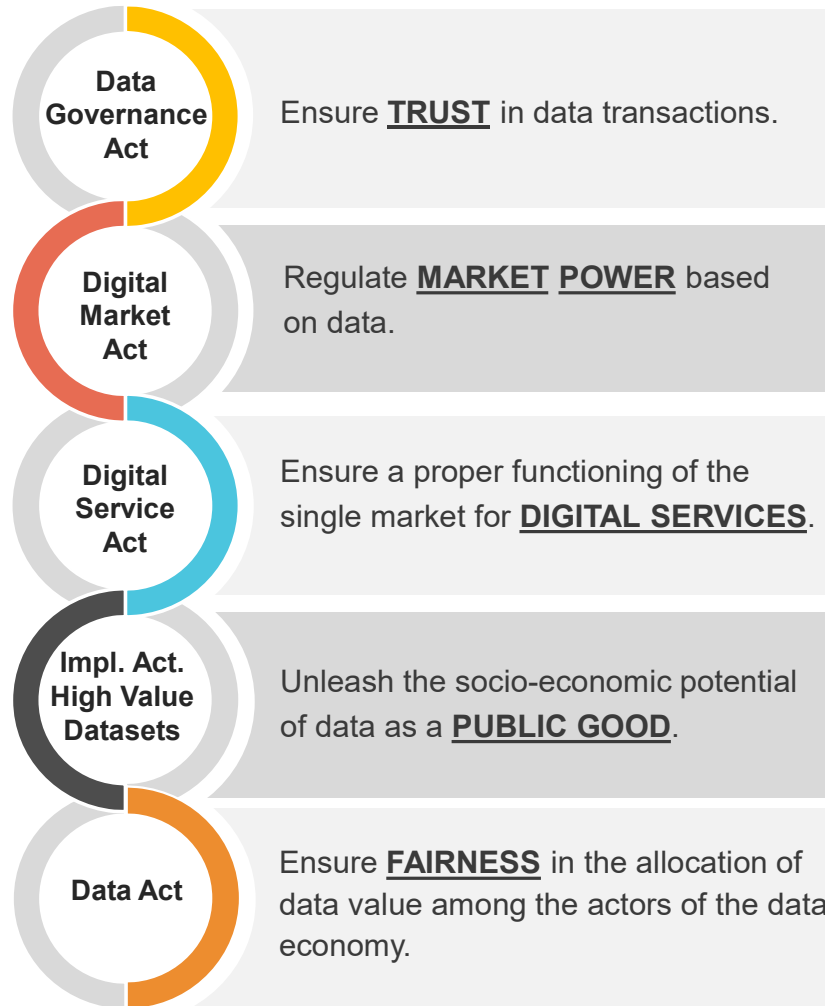
Interoperability
will accelerate
green transition

Semantic Interoperability Framework

Full value chain valorization

From SAREF enabled devices to SAREF enabled interoperable services

Legal instruments

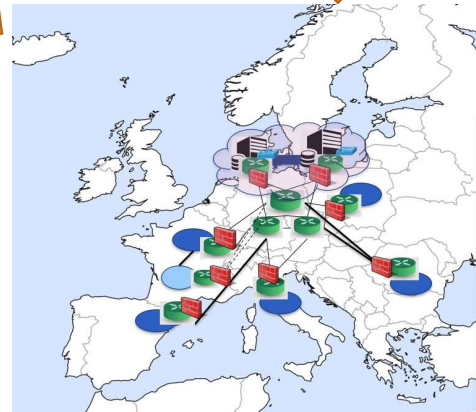


CEF Digital Operational Digital Platforms (ODPs)

EU environmental, energy and digitalization targets

Common European Data Spaces (Energy, Mobility)

European data, federated cloud and edge computing continuum and connectivity infrastructures



ODPs are pan-European physical and virtual information communication technology resources, operating via the communication infrastructure and retrofitting the existing energy and transport infrastructures, which support the flow, storage, processing and analysis of transport or energy infrastructure data, or both.

October 2022

Preparatory Coordination and Support Action
- identify the most appropriate cases
- deliver the building blocks

2024

Deployment works project

Indicative budget: EUR 4 Million
Maximum Co-Funding Rate: 100%

Balanced consortium covering digital, transport and energy



Thank you



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