

# IOTWeek

Dublin — June 20-23, 2022

## Digitalisation of Energy Architectures in Data Exchange Frameworks

**GLOBAL VISION:**

**IoT TODAY AND BEYOND**

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Internet of Things

DG CONNECT

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**IOTForum**

# Digitalisation of Energy - Context



## Twin Energy and Digital Transition

European  
Green Deal

Europe fit for  
the Digital Age

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



## July 2021 : Fit for 55 package

to **reduce emissions by at least 55% by 2030**. This will cover wide-ranging policy areas – from renewables to energy efficiency first, energy performance of buildings, as well as land use, energy taxation, effort sharing and emissions trading.

## October 2021: Commission WP 2022

[...] the Commission will propose an **action plan for an accelerated digital transformation of the sector**, which is needed to ensure the shift towards renewables, connected mobility, smart buildings, and a more integrated energy system with consumers at its core.



## May 2022 : REpowerEU Communication

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”

# Industrial Internet of Things: the strategic picture for Europe

## Next generation IoT

Power to the edge,  
where the data is  
Seamless  
connectivity



Next generation operating Systems  
Decentralised/swarm intelligence  
Cognitive computing continuum

Investment in Data Spaces  
EU 5G & cloud-edge  
infrastructure/services

**Standardisation &  
Interoperability**



**Vertical, horizontal &  
cross-sector integration**

## Common Open Digital Platforms & Ecosystem

**Competition law,  
Geopolitics**



**Strategic  
autonomy**

Transition pathways  
towards resilient,  
innovative, sustainable  
and digital ecosystems



Open, dynamic  
ecosystems for EU  
tech businesses

## New Industrial Strategy

**Chips Act**

Next generation chips  
powering intelligence  
at the edge



Semiconductor  
Chips made in Europe

**Data Strategy**



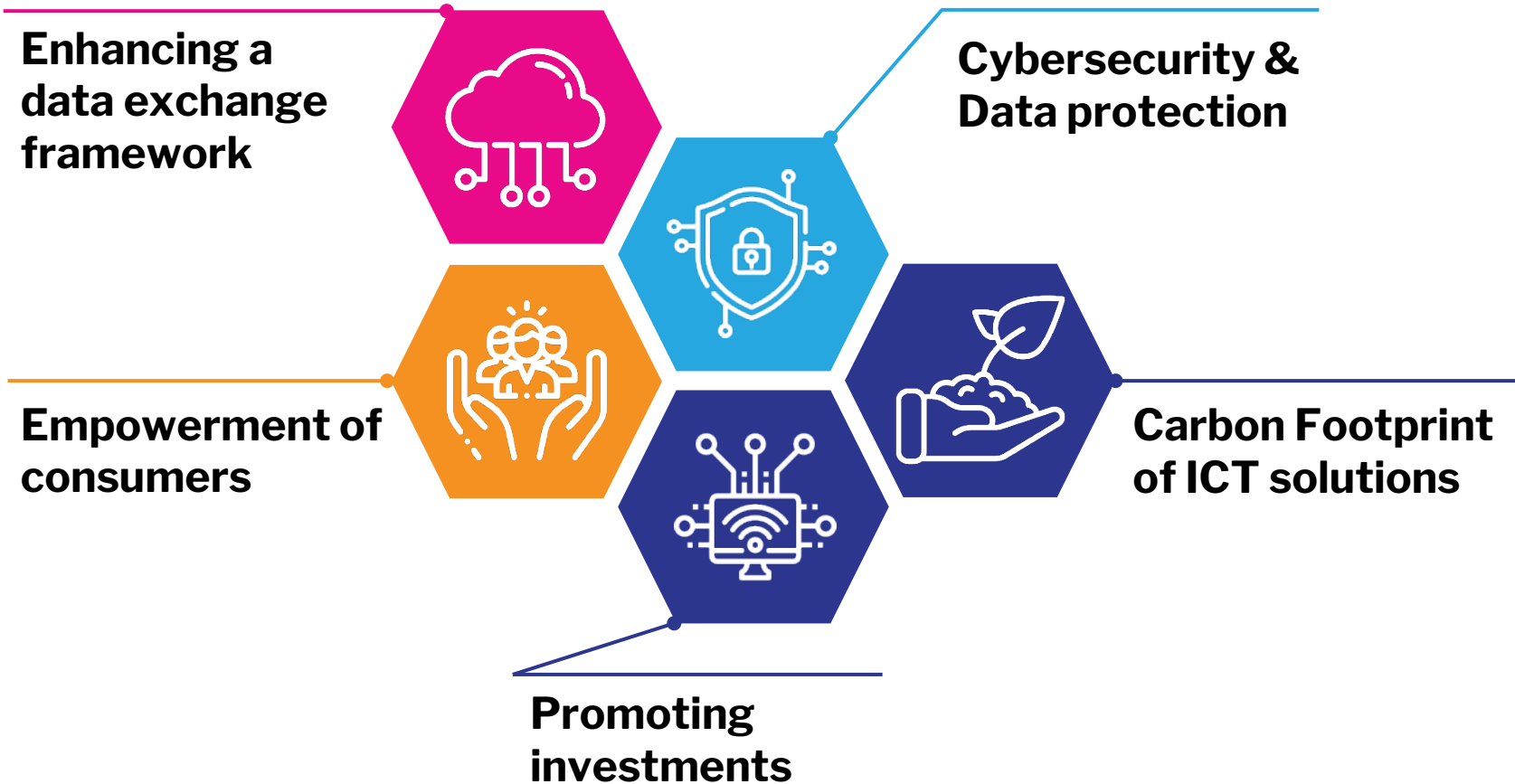
Data legislation, e.g.:

- Data Act: Access and fairness on data market
- Digital Market Act: limited role of gatekeepers

### The EU Policy Context:

- ❑ NextGenerationEU
- ❑ REPowerEU
- ❑ Twin Transition:
  - Digital Compass
  - Green: Fit for 55

# The 5 Areas of the Digitalisation Action Plan



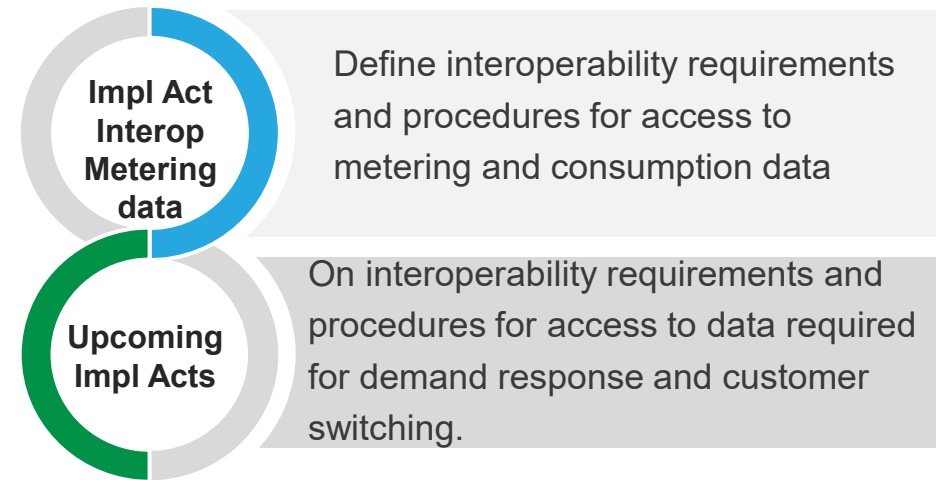
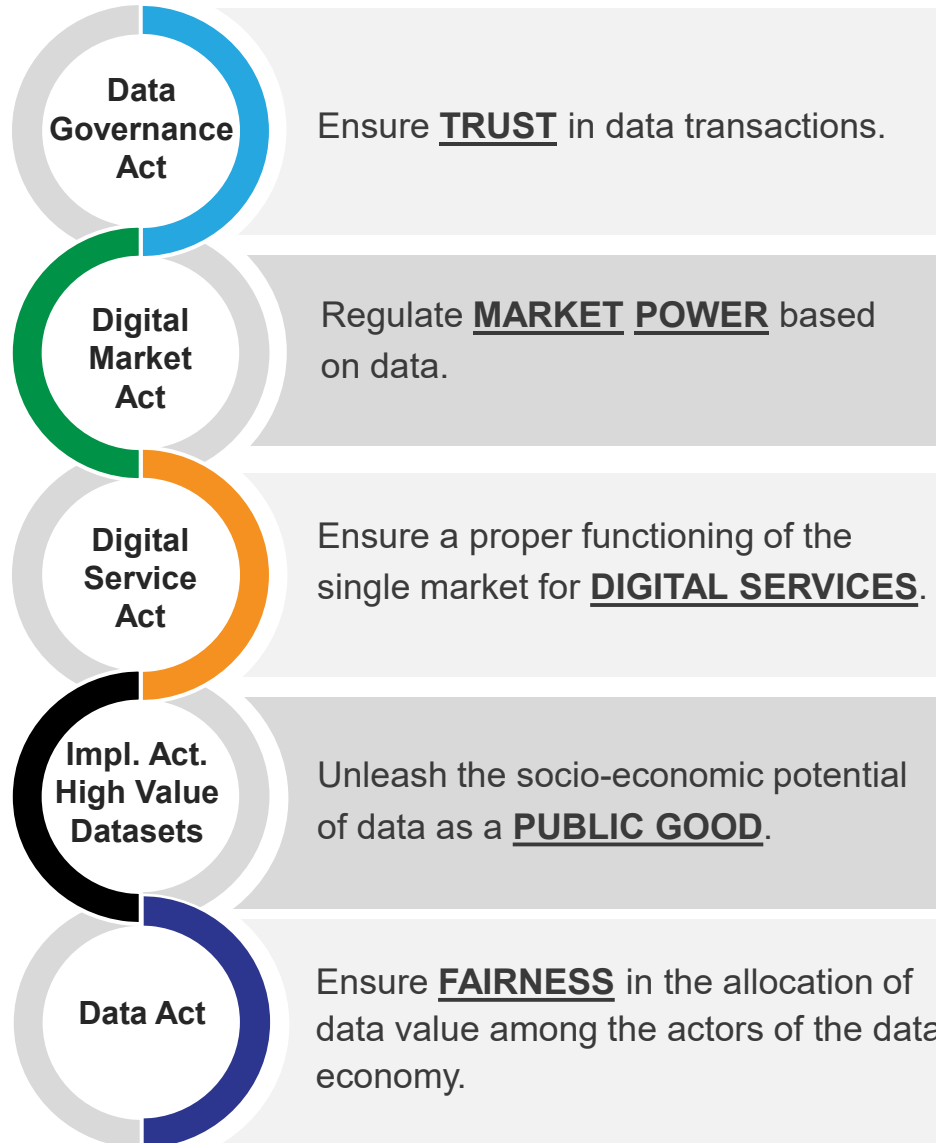
# A European framework for sharing data in support of innovative energy services

**Rationale:** The key enabler for a digitalised energy system is the availability of, access to, and sharing of energy-related data.

**Aim:** To facilitate the development of innovative and inclusive energy solutions/services for grid developments and energy market integration.

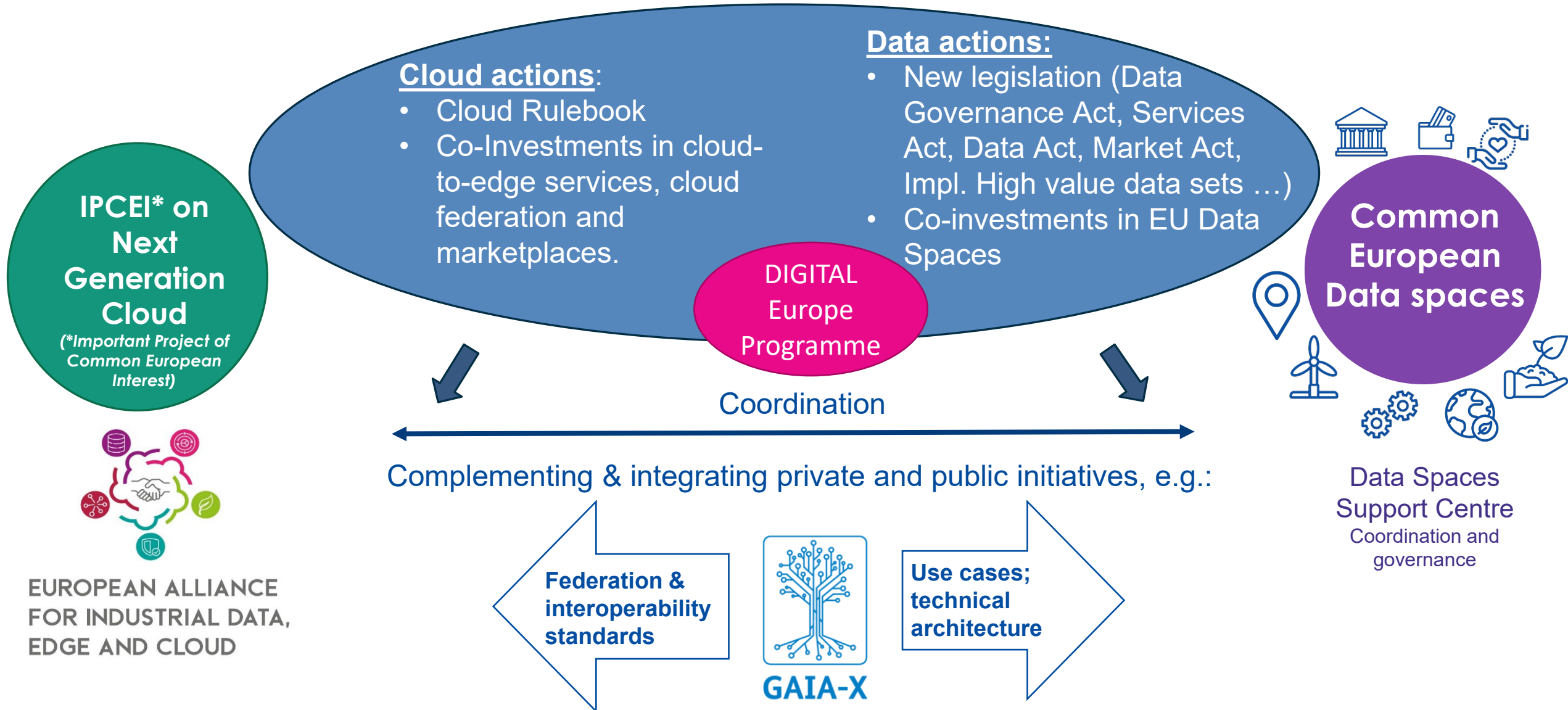
**Means:** Develop a European framework for sharing energy data. Establish a common European data space for energy. Set up an expert working group and a governance structure. Select and agree on the priorities ('high level use cases') which will include: (i) flexibility services, (ii) smart and bi-directional EV charging, and (iii) smart and energy efficient buildings.

# Legal instruments





# The European Data strategy



# Architectures and frameworks

- ❑ Horizon 2020/Europe
  - Large scale pilots and other R&I actions and CSAs (e.g. Open DEI)
  - Clusters – e.g. Bridge (extended SGAM)
  - Partnerships
- ❑ Digital Europe Programme
  - Common European Data Spaces – Sectorial, Support Centre
  - Cloud-Edge continuum/services, Smart middleware
  - Local/Urban digital platforms
- ❑ National and cross-border efforts
- ❑ Way forward is convergence and interoperability towards an open shared reference architecture and interoperability framework





The logo for IOTWeek, featuring the letters 'IOT' in a stylized font with a blue-to-orange gradient, followed by 'Week' in white. The background is a dark, dimly lit conference hall with rows of chairs and a stage area.

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**Thank you!**

[iotweek.org](https://iotweek.org)