



# Future Evolution of Digital Landscape in Europe

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# Data



**530%**

increase of global  
data volume

From 33 zettabytes  
in 2018 to 175  
zettabytes



**€829  
billion**

value of data  
economy in the  
**EU27**

From €301 billion  
(2.4% of EU GDP)  
in 2018



**10.9  
million**

data  
professionals in  
the **EU27**

From 5.7 million in  
2018

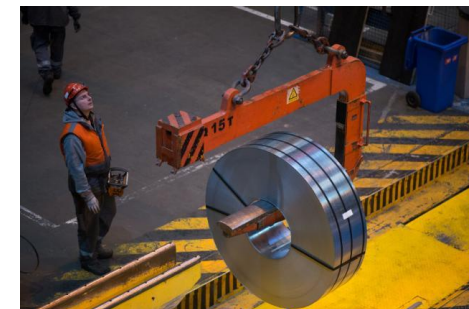


**65%**

Percentage of EU  
population with  
**basic digital skills**

From 57% in 2018

# A new paradigm for EU action on cloud and edge: high ambition & coordinated approach



**Feb. 2020**  
**European Strategy for Data**  
aims to build a single market for data

**May 2020**  
**Recovery and Resilience Facility**  
20% Digital EU Flagship  
“Scale-up”

**Oct. 2020**  
**Member States Declaration for European cloud**

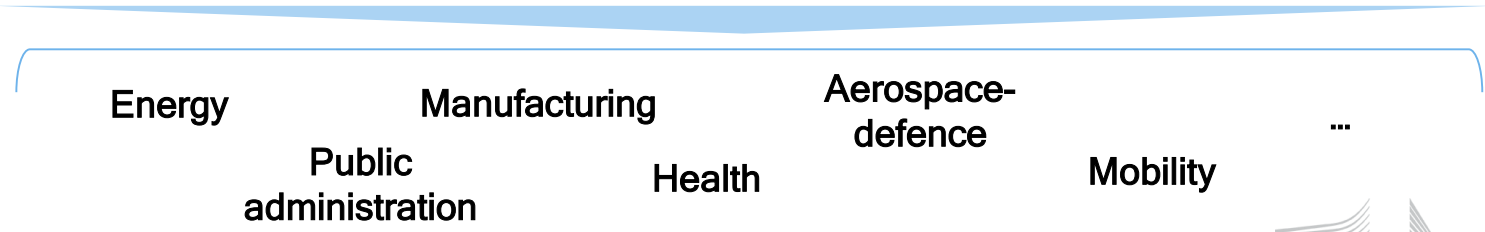
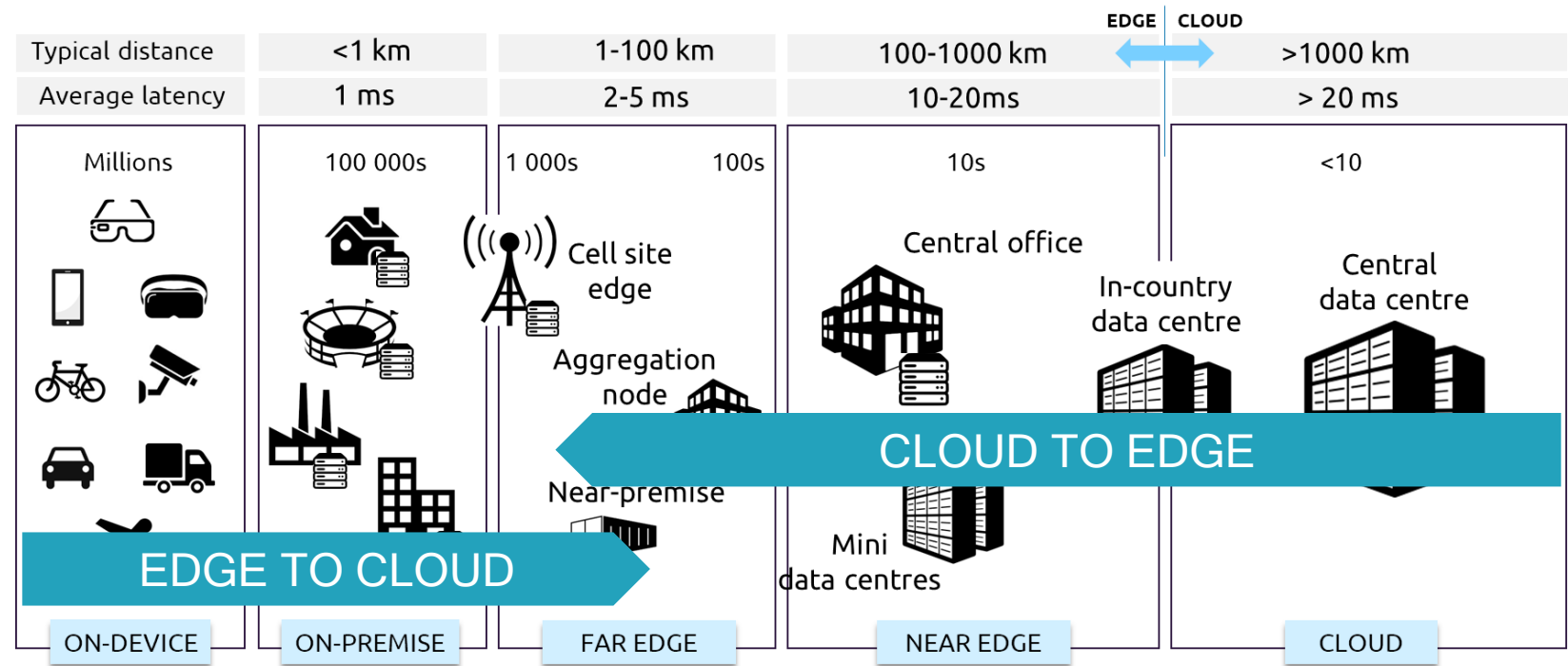
**March 2021**  
**Digital Decade Strategy** sets targets on edge and cloud for 2030

**May 2021**  
**Updated EU Industrial strategy** evidences strategic dependencies

# Digital Decade objectives by 2030

**2030 DIGITAL COMPASS**  
THE EUROPEAN WAY FOR THE DIGITAL DECADE

- ✓ >10.000 edge nodes by 2030
- ✓ 75% of cloud uptake by EU enterprises in 2030

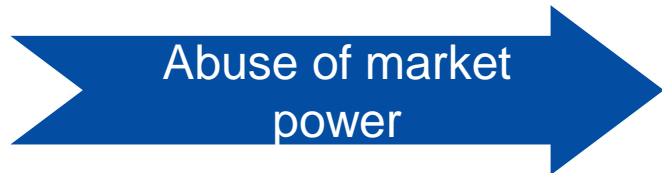


# The EU Data Policy Framework

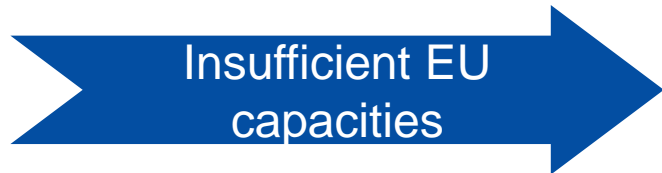
EU legislative framework: GDPR (2016) + Free Flow of Non-Personal Data Regulation (2018)



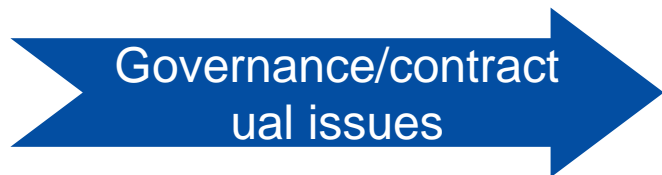
Data Act (2022)



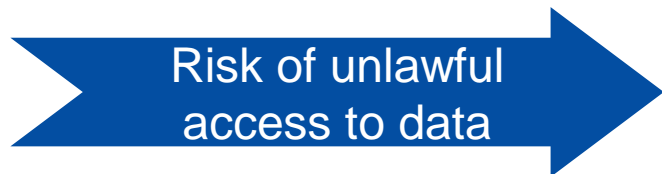
Digital Markets Act (2022)



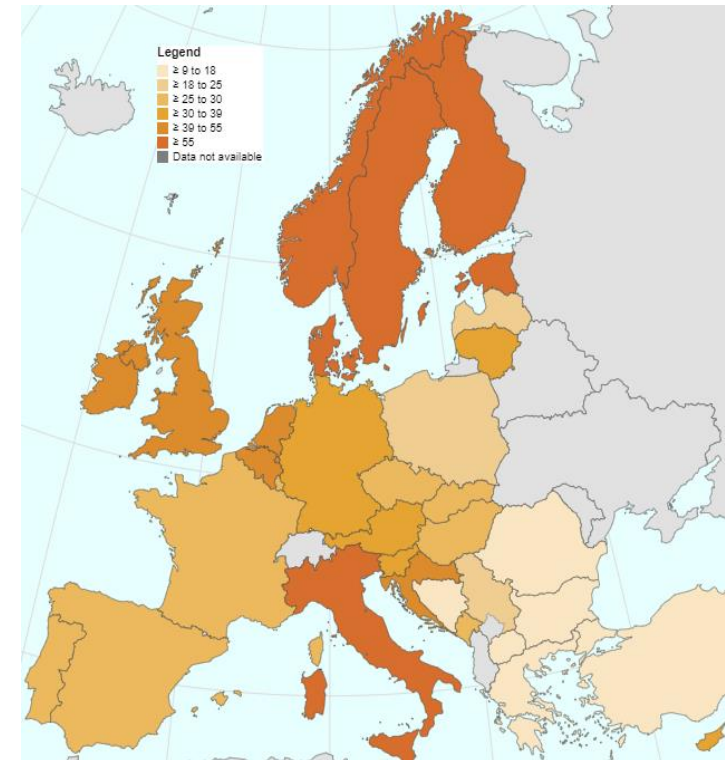
*Alliance for Industrial Data, Edge & Cloud (2021)*



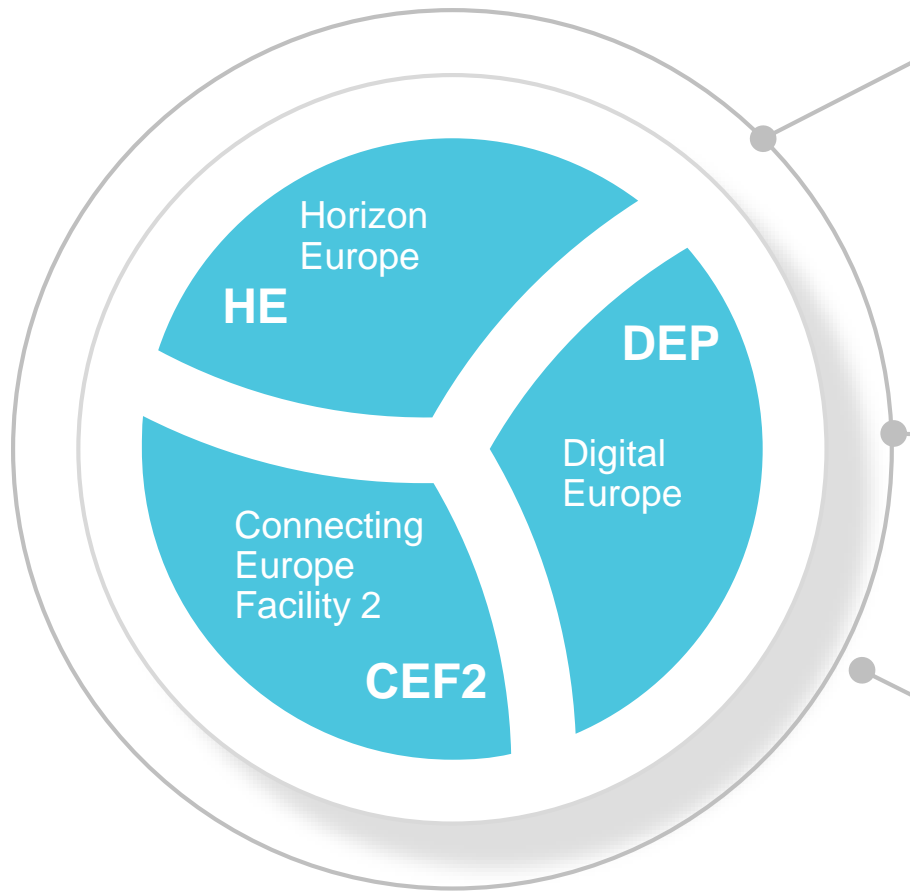
*EU Cloud Rulebook (2022) & Common standards and requirements for public procurement of cloud services (2022)*



Data Act (2022)



# EU funded programmes 2021-2027



Long Term Research

**Horizon Europe**  
THE NEXT EU RESEARCH & INNOVATION PROGRAMME (2021-2027)

Deployment of Digital Services

**Digital Europe Programme**

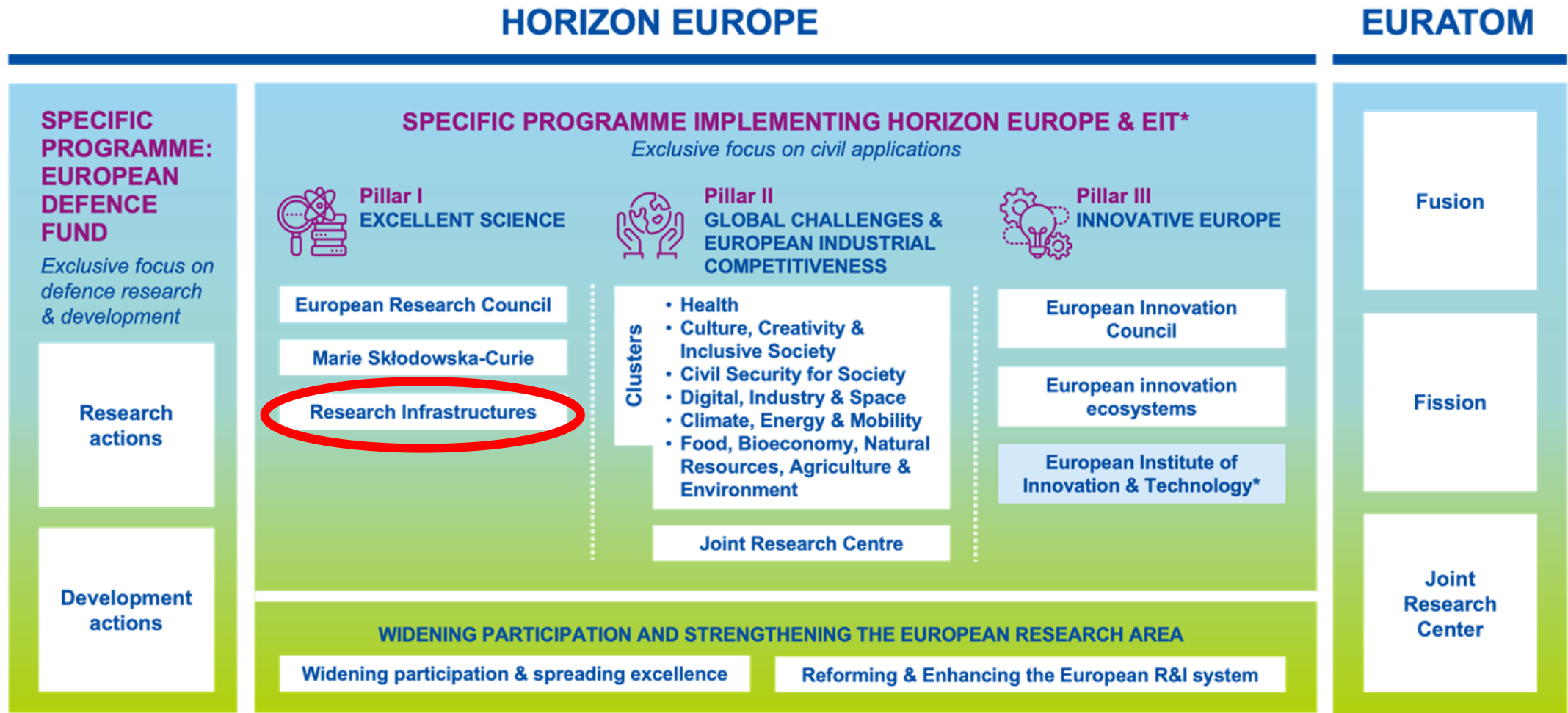
Deployment of Digital Infrastructures

**Connecting Europe Facility Digital Programme 2021-2027**  
#CEF2digital



# Research Infrastructures part in Horizon Europe

Horizon Europe supports research and innovation through Work Programmes, which set out funding opportunities for research and innovation activities.



\* The European Institute of Innovation & Technology (EIT) is not part of the Specific Programme

# EOSC policy ‘roots’



**EOSC** is the **supply side** of a broader policy initiative to mainstream **open science** practices in Europe.

- Helps **sharing research knowledge and tools** as early as possible in the research process, between borders, disciplines and society at large;
- Develops a **Web of FAIR data and services for Science**;
- Enables **federated access** to R&I infrastructures;
- Empowers universities, other research performing organisations and surrounding ecosystems.



**EOSC** is a pilot action of the renewed **European Research Area (ERA)**



**EOSC** is a data space of the **European Data Strategy**

**EOSC** supports the **Digital Agenda** of the EU

- Basis for a **science, research and innovation ‘commons’** articulated with other data spaces in key sectors of the European economy;
- Brings opportunities for aggregating R&I demand for thematic and eInfrastructure services (e.g. cloud to edge services and platforms).

**EOSC** is in the scope with the **Recovery and Resilience Facility**





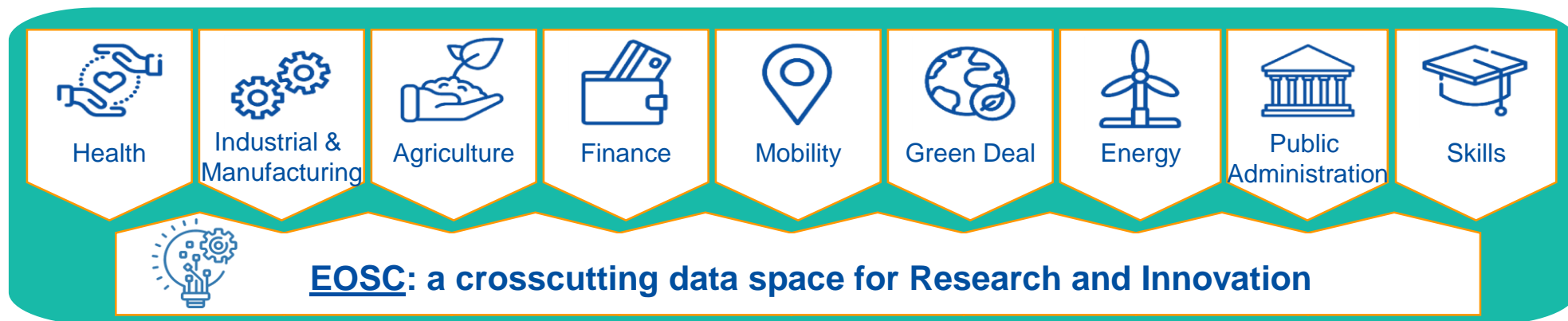
# EOSC in the European Data Strategy



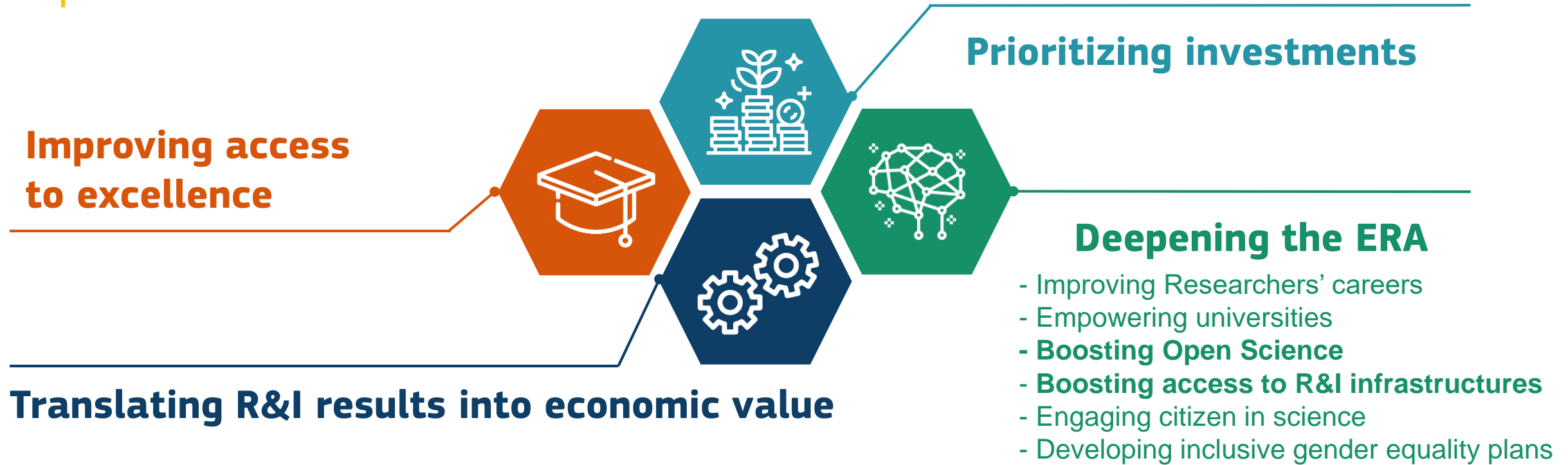
## The EU will create a single market for data by:

- ❑ Setting clear and fair rules on access and re-use of data;
- ❑ Investing in next generation standards, tools and infrastructures to store and process data;
- ❑ Joining forces in European cloud capacity;
- ❑ **Pooling European data in key sectors, with EU-wide common and interoperable data spaces;**
- ❑ Giving users rights, tools and skills to stay in full control of their data.

*“**EOSC** is the basis for a science, research and innovation data space that will bring together data resulting from research and deployment programmes and will be connected and fully articulated with the sectoral data spaces.”*  
(European Data Strategy, COM(2020) 66 final)



# EOSC in the new European Research Area



## Key action 9 of the ERA roadmap:

- Launch, via the Horizon Europe Programme, a platform of peer-reviewed open access publishing; analyse authors' rights to enable sharing of publicly funded peer-reviewed articles without restriction;
- **Ensure a European Open Science Cloud that is offering findable, accessible, interoperable and reusable research data and services [Web of FAIR data and services for science];**
- Incentivise open science practices by improving the research assessment system.

# European Research Infrastructure Consortium (ERIC)

- The European Research Infrastructure Consortium (ERIC) is a specific legal form that facilitates the establishment and operation of Research Infrastructures with European interest.
- The ERIC allows the establishment and operation of new or existing Research Infrastructures on a non-economic basis
- The Commission provides practical guidelines to help potential applicants.
- The ERIC becomes a legal entity from the date the Commission decision setting up the ERIC takes effect.
- An ERIC can carry out some limited economic activities related to this task.

## Advantages of an ERIC:

- a legal capacity recognized in all EU countries
- flexibility to adapt to specific requirements of each infrastructure
- a faster process than creating an international organization
- exemptions from VAT and excise duty

An ERIC may adopt its own procurement procedures which have to respect the principles of transparency, non-discrimination and competition.

# ERIC – Examples

- [European Spallation Source-ERIC](#): the 'big one', the largest single site RI under construction of the ESFRI roadmap
- EATRIS/ECRIN/BBMRI (3 ERICs): [fast response services](#) in the context of Covid-19
- [Euro Argo ERIC](#): int'l outreach (contribution to int'l Argo) & relevance to operational oceanography / Copernicus
- [ESS](#) ERIC (European Social Surveys): very large membership (25 countries)
- [CERIC](#): developing/mobilising capacities from Central European countries
- [EMBRC](#) ERIC: well-structured business plan (publicly [available](#) - building on EIB suggested template)
- [ACTRIS](#) (not yet an ERIC): fast process from entry in ESFRI roadmap (2016) to ERIC step 2 application (just now)
- [EPOS](#) ERIC: compared to other ERICs, further (long-term) level of integration of very diverse facilities, networks, observatories, labs, digital capacities...

# European Digital Infrastructure Consortia (EDIC)

The European Digital Infrastructure Consortium (EDIC) is a **new instrument** presented in the Commission proposal for a [Decision establishing the 2030 Policy Programme “Path to the Digital Decade”](#) of 15 Sept 2021.

*The proposal is currently under discussion between the co-legislators, the Council and European Parliament.*

- An EDIC shall have **legal personality**. The **basic internal structure of an EDIC will be flexible and defined in the statutes by its Members**
- The membership of EDIC shall **include at least three Member States, other Member States may join** as members **at any time** on fair and reasonable terms specified in the Statutes
  - In contrast to Joint Undertakings an EDIC will not be a Union body, and the Commission will not hold votes.
- The main **sources of financing** for the EDIC would be **commitments of the EDIC members and grants from the directly managed EU instruments**
- An EDIC shall be **liable for its debts**, the Union shall not be liable for an EDIC’s debts
- The **Commission** will be **involved** in the following elements of an EDIC’s governance:
  - In all cases the COM shall participate **in the deliberations of the assembly of members** of an EDIC, **without voting rights**
  - **Where a centrally-managed Union programme financially contributes to a Multi-Country Project**, the Commission shall have a **veto right** on the decisions of the assembly
  - COM may **provide recommendations regarding** the matters covered in **an EDIC’s annual activity report**

# The Commission role as an MCP Accelerator

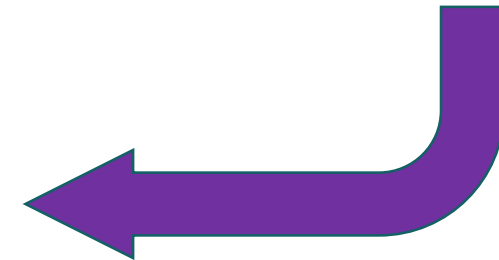
**MSs request, joint commitment or Commission recommendation triggers coordination**  
(Commission acting as MCP Accelerator) of the implementation of an MCP.



Step 1 of coordination:  
**the Commission publishes a call for expression of interest** addressed to all Member States.



Step 2 of coordination:  
if at least 3 MSs express interest in an MCP and propose commitments, **the Commission shall give guidance on the choice of the appropriate implementation mechanism**, on the sources of funding.



The Commission  
either proposes an **existing implementation mechanism**  
or gives guidance to set-up a **new European Digital Infrastructure Consortium (EDIC)**.



# Thank you



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