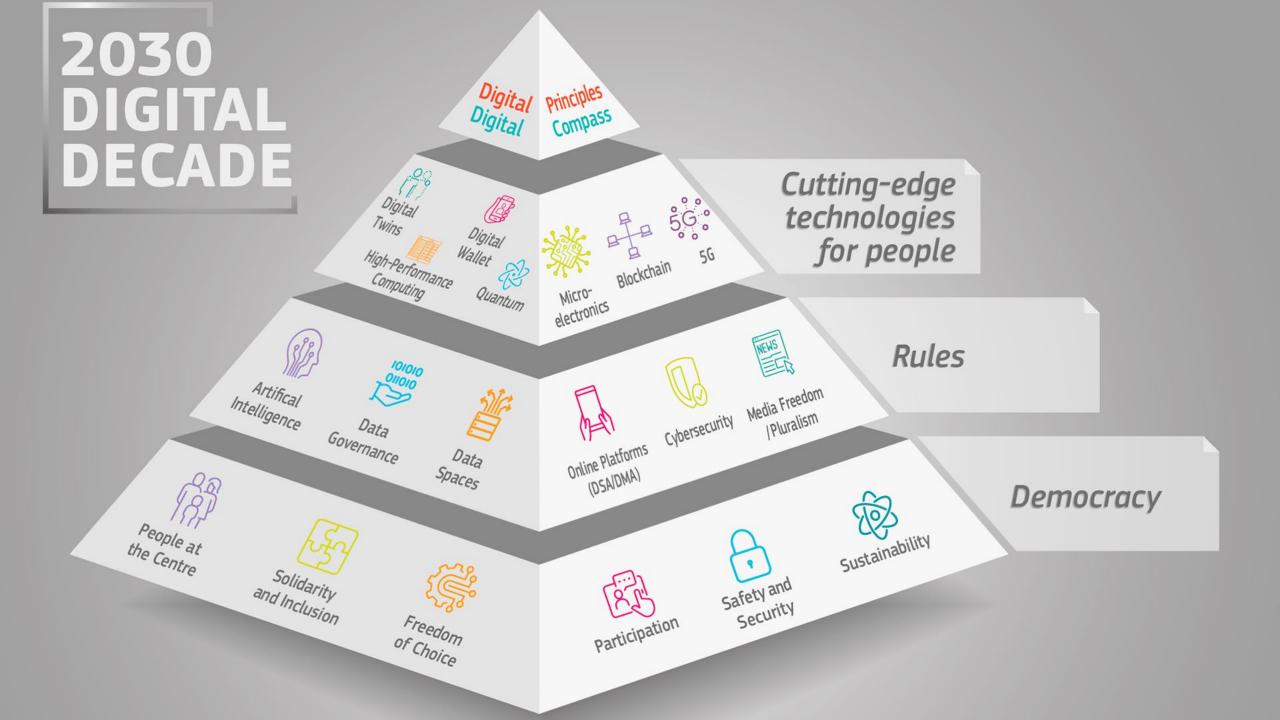


European Commission

# The Digital Decade concept and practice

# 2030 DIGITAL DECADE

# DLM 27 May 2024



# 5 key factors of the policy context

**Geopolitical reality** – need for resilience and greater sovereignty



**Technological reality** – post Covid and ahead of Metaverse – need to embrace the acceleration of the digital transformation

**Climate change reality** – need to foster ICT contribution to reduce our global footprint

**Societal reality** – need for more trust in the digital environment and to address divides

**Economic reality** – need to make the best of the digital transformation potential

# **Achieving the Digital Decade**

#### Declaration on Digital Rights & Principles

Solidarity and inclusion, freedom of choice, safety, privacy, etc.

#### 2030 Digital Targets

Skills, Infrastructure, Businesses, Public services

#### **General Objectives**

Sovereignty, resilience, sustainability, etc.

# **Destination**

#### Digital Decade Policy Programme 2030

Annual monitoring & reporting on the State of the Digital Decade National Digital Decade strategic roadmaps Joint Commitments and Multi-Country Projects

> Digital Compass Communication 2030 vision for a human-centred, sustainable and inclusive digital transformation

Cooperation

- Vision

# Objectives: The "EU approach for digital transformation"

People	Human centred respecting rights, values and freedom of choice, accessible health
	Trusted and secure environment for all
	Accessibility for everyone including disadvantaged people
	Advanced digital skills and competencies
Society	Inclusive and participative addressing all divides and providing for opportunities for all
	Online participation in democratic life for all, fair and non-discriminatory conditions
	Public services accessible online for everyone and everywhere
	Sovereignty in an open manner, accessible and efficient data infrastructures
	Competitiveness and sustainability of EU's industry, fostering start-ups ecosystems Regulatory environment
	favourable to undertakings. SMEs
Leadership, sovereignty	Collective resilience including of the value chain
and the economy	High security standards, resilience to cyberattacks
	High performant and interoperable digital capacities, capabilities and infrastructures
	Synergies between private and public investments
	Predictable regulatory and supportive approaches for digital transformation
Green transition	Sustainable ecosystem of digital infrastructures, notably energy and resource efficient,
	Minimising their negative environmental impact, sustainable circular and climate neutral

# **Digital Decade targets for 2030**

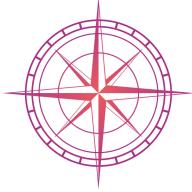
 The Digital Decade Policy Programme builds on already existing policies/budget programmes/strategies and targets along 4 cardinal



ICT Specialists: 20 millions + more women in ICT Basic Digital Skills: min 80% of population

#### Government

Key Public Services: 100% online
e-Health: 100% of citizens with online
access to health records
Digital Identity: 100% citizens have access
to digital ID



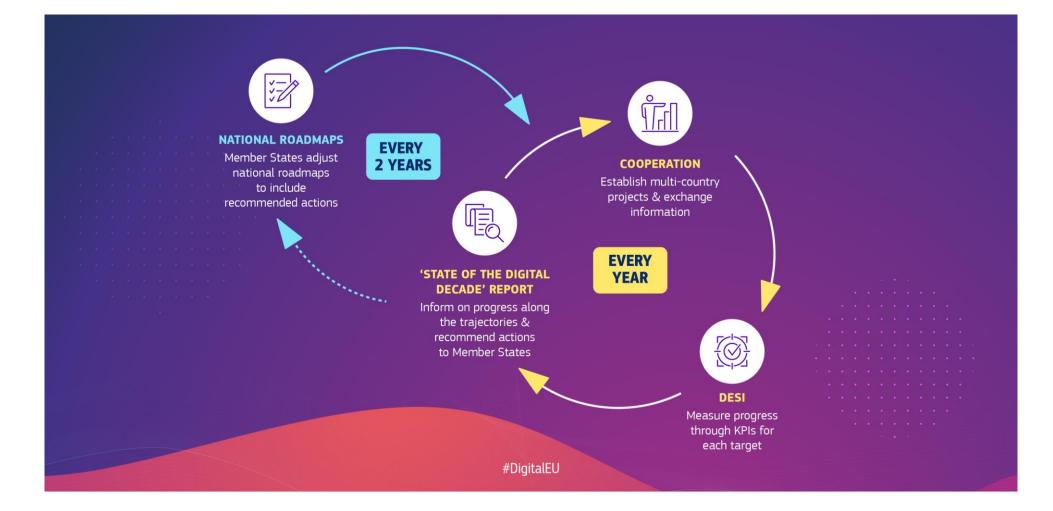
#### Infrastructures

Connectivity: Gigabit for everyone Cutting edge Semiconductors: double EU share in global production Data – Edge & Cloud: 10,000 climate neutral highly secure edge nodes Computing: first computer with guantum acceleration

#### **Business**

 Tech up-take: 75% of EU companies using Cloud, AI or Big Data Innovators: grow scale ups & finance to double EU Unicorns
 Late adopters: more than 90% of European SMEs reach at least a basic level of digital intensity

# **Implementation Timeline**





# 2030 DIGITAL DECADE

# The Annual Report 2023

• •

# Context for the "State of the Digital Decade" report

The Commission shall annually present **a comprehensive report** on the state of the Digital Decade. The report shall cover progress with regard to the digital transformation of the Union towards the **digital targets**, and compliance with the **general objectives**, identify significant **gaps and shortages** and **recommend policies, measures or actions** to be taken by Member States in areas where progress was insufficient.

# Central role of the annual report

- THE annual "rendez-vous" to take stock on digital policies
- Result of 6/9 months of fact gathering:
  - Input from the Commission: regulatory monitoring, projects, partnerships, studies, Eurobarometers, JRC, expert groups
  - MS to provide to EC the necessary statistics and data
  - Full coherence & synergies with European Semester, RRF, DESI



# The State of the Digital Decade package

- A Communication including a comprehensive outlook of EU's digital transformation and recommendations (general and specific to MS
- A Communication on EU target trajectories
- A series of SWD
  - Report tacking stock of **Multi-Country Projects** (MCPs)
  - 27 country reports
  - Report on general objectives and digital rights and principles
  - Report on methodology
  - 4 reports on cardinal points
  - About ....856 pages

# Looking backwards: State of the Digital Decade 2023 in figures

#### Clear objectives and robust monitoring:

- 1 Decision and 1 Declaration on digital Rights and Principles
- 11 General objectives such as human centred digital environment, competitiveness, resilience, sovereignty
- 4 cardinal points, skills, infrastructures, digitalisation of business, digitalisation of public services
- 32 indicators are assessed at EU and MS level 11 of them being KPIs of the DDPP
- 1 IT tool to facilitate secure exchanges between the Commission and MS

#### Taking stock on what already has happened:

- 68 EU initiatives (policies, regulations, measures) and measures taken since 2020 to implement the Digital decade
- EUR 165 billion of EU funds to support the Digital Decade targets
- 900 RRF measures worth EUR 117 billion

#### Way forward for collective action:

- 60 general recommendations to all MS
- More than 108 MS-specific recommendations
- 8 European Digital Infrastructure Consortia (EDICs) in the making (among which one already fully notified)

#### The European Digital Decade team :

- More than 100 CNECT officials involved in the drafting of the State of the Digital Decade 2023 package
- 200 people joined the Digital Decade ISSG Teams channel
- 108 MS representatives in the Digital Decade Board and committee

#### **Outreach to stakeholders**

- A Futurium online platform
- 600 members of the Futurium community across Europe and beyond

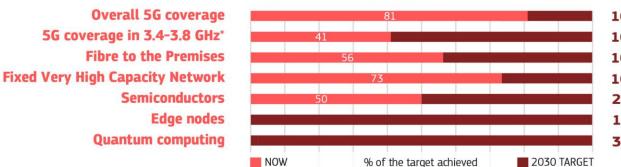


# The role of the "renewed" DESI

- **DESI is fully integrated in Digital Decade policy programme**: it contributes to the annual monitoring exercise and is part of the Report on the State of the Digital Decade.
- DESI 2023 is used to monitor the joint progress towards the Digital Decade 2030
   Union targets as part of the mechanism of annual cooperation between
   EU institutions and the Member States.
- The relevant indicators in DESI (cf. next slide) **are fully aligned with EU targets** for 2030 for infrastructure skills, digitalisation of businesses and public services.
- The DDPP has shifted the focus from the assessment of a country's relative performance to a collective effort to bridge the gap to the DD targets and objectives.
- To adapt to its new role defined in the Digital Decade, DESI 2023 consists of a **set of relevant indicators which are presented as a multi-dimensional dashboard**.

#### TAKING STOCK OF PROGRESS TOWARDS 2030

**DIGITAL INFRASTRUCTURE** 



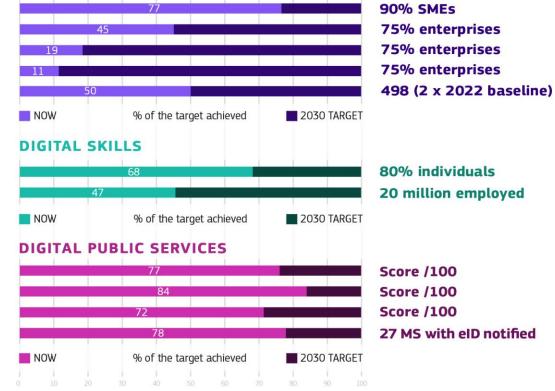
#### 100% coverage 100% coverage 100% coverage 20% of world production value 10 000 3 quantum computers

#### **DIGITAL TRANSFORMATION OF BUSINESSES**

SMEs digital intensity Cloud take-up Big data take-up AI take-up Unicorns

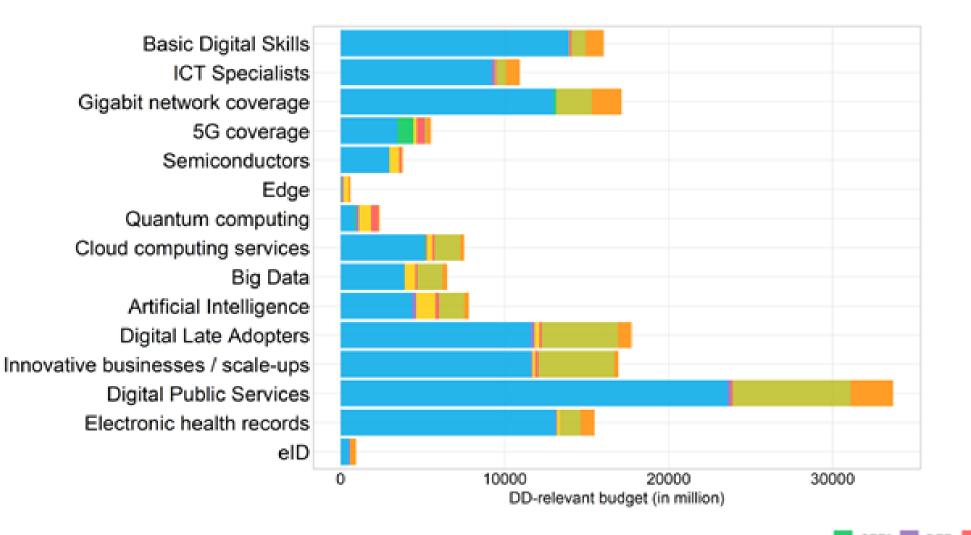
> Basic digital skills ICT specialists

Digital public services for citizens Digital public services for businesses Access to e-health records eID



\* Not a KPI but gives an important indication on high quality 5G coverage

# Relevant EU budget for the Digital Decade (million)



Funding Instrument

RRF

HE

Digital Decade Target

# ..put in perspective

It can be drawn that:

- Over the last 5 years, the EU has stepped up action to re-assert its technological leadership and facilitate digital transformation, while fostering its resilience.
- The EU has boosted action to address strategic dependencies, notably on critical raw materials, semiconductors, IT software (cloud and edge software).
- However, Europe as a whole needs further action to reach the targets set in the DDPP. Three directions should be followed:
  - Build a resilient, sovereign and competitive digital EU
  - Empower EU people and society
  - Establish a digitalisation that supports the EU Green Deal

# Key policy messages of the State of Digital

- The importance of the geopolitical context (war in Ukraine, fragmentation, increase of risks (cyber, supply chains))
- A successful digital transformation is **NOT automatic:** a 'wake-up call' for collective action
- Trajectories show that meeting the following targets is at risk: skills (in particular, ICT specialists), semiconductors, adoption of AI /big data, ; analysis shows also risks for high-quality services for connectivity, public services and e-ID.
- Digitalisation is a key factor of competitiveness and resilience for SMEs. It is an area where performance is **low: SMEs digital intensity, use of AI/big data.**
- Skills are a key enabler to reach all other targets notably for quantum, AI, semiconductors.
- It is a unique opportunity to use over 20% of the RRF funding for digital. But overall, the investment gap remains and can be significant. The main gaps are linked to the ICT digital skills, infrastructure and semi-processors.
- The **launch of EDICs is a success** that goes beyond our initial hopes –with many pre-notifications covering all cardinal points (cf. next slide)
- Digital can be **the best ally to greening**, but we need to better intertwin the actions between digitalisation and greening and take seriously the focus on "net-impact" and better
- Digital citizenship is now a reality (notably with DSA, AI act) but further new urgencies are emerging in 2023:
   Generative AI, protection of children online



.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.
.<

# 2030 DIGITAL DECADE

# From words to deeds: acting together to achieve our objectives

# The report – A call for collective action

# The first annual report calls for collective action

Member States have advanced in their digitalisation efforts but still struggle to close the gaps in digital skills, the digital transformation of businesses, especially SMEs, and the roll-out of advanced gigabit networks.

# Cooperation is key...

The European Commission and Member States need to cooperate further to bridge the existing gap

# ...And the way forward is proposed

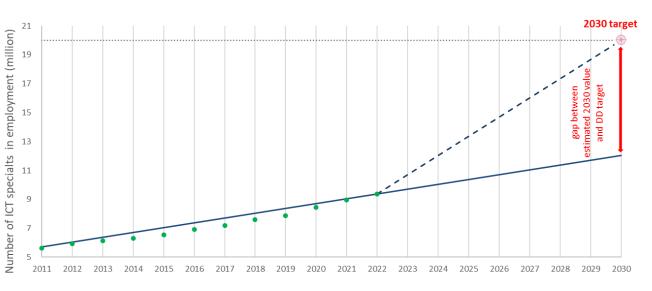
60 recommended actions to all MS 108 specific recommended action to MS 8 EDICs in preparation

# A concrete focus for action: ICT specialists

#### Where are we now?

In 2021, the total number of ICT specialists in employment was 9.37 million across the entire EU.

Under current conditions, the number of ICT specialists in the EU will be close to **12 million** by 2030



– – DD trajectory = ideal path to reach the target

Historical data

# What is our goal by 2030?

General Objective: resilient, competitive, high performant and interoperable digital infrastructures, sovereignty

**Target:** At least 20 million ICT specialists in the workforce.

### What is the way forward?

**General recommendation:** Member States should propose, in their national roadmaps, concrete actions on attracting and retaining ICT specialists.

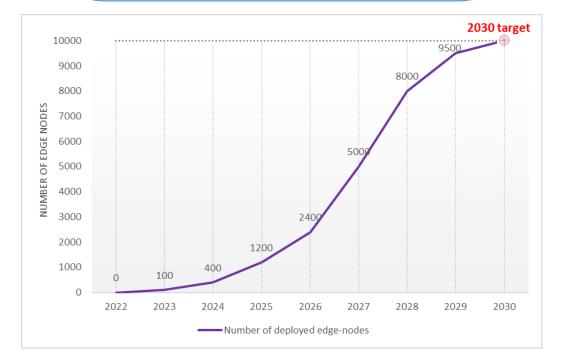
Example of specific recommended action: Austria should accelerate its efforts in the area of digital skills, notably in the upskilling and reskilling of its labour force, especially women, and in particular in advanced and emerging technologies.

Baseline trajectory based on past perfomance

# A concrete focus for action: Edge nodes

#### Where are we now?

In Europe, the development of the edge computing ecosystem is still in its early stages with only three total commercial deployments of edge computing in Europe in 2022, together with announcements of partnerships and pilots in 18 Member States.



### What is our goal by 2030?

**General objective:** competitiveness, resilience, infrastructures

**Target:** The Digital Decade target for edge and cloud requires the entry into operation of 10 000 climate-neutral highly secure edge nodes by 2030.

#### What is the way forward?

**General recommendation:** Member States should take into account the development of edge computing capacities in conjunction with strategies and investment programmes addressing cloud, IoT, and AI, and foster synergies with the deployment of 5G.

#### Example of specific recommended action: Sweden

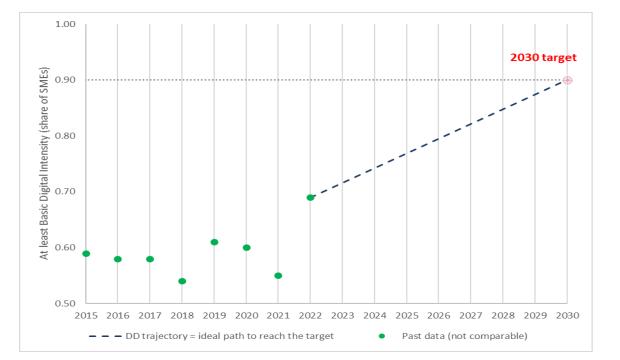
should accelerate its efforts on connectivity infrastructure. Measures taken by Sweden in the field of semiconductors, edge and quantum computing should continue in order to help the EU to become a strong market player in these areas

# A concrete focus for action: SME digital intensity

#### Where are we now?

In 2022, 69% of SMEs reached a basic level of digital intensity.

A basic level of digital intensity means that an enterprise uses at least 4 of the 12 selected digital technologies.



## What is our goal by 2030?

**General Objective:** to achieve a high level of digital intensity and innovation in Union enterprises, in particular start-ups and SMEs

**Target:** more than 90% of the Union SMEs reach at least a basic level of digital intensity

#### What is the way forward?

**General recommendation:** Member States should develop and strengthen their policies and incentives for promoting the digitalisation of businesses.

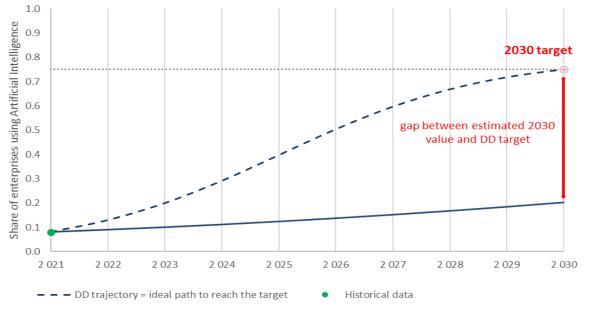
**Example of specific recommended action: Czechia** should accelerate its efforts in the area of digitalisation of businesses......to encourage the digitalisation of businesses, especially SMEs,

# A concrete focus for action: Adoption of AI technologies

#### Where are we now?

In 2021, the uptake of AI technologies remains limited with 8% of EU enterprises.

20% is the 2030 forecast projected along the baseline trajectory for 2030



Baseline trajectory based on past perfomance

## What is our goal by 2030?

**General Objective:** competitiveness, deployment of digital capacities to achieve a high level of digital intensity and innovation in Union enterprises

**Target:** at least 75 % of Union enterprises have taken up AI in line with their business operations

#### What is the way forward?

**General recommendation:** Member States should take policy measures and earmark resources to support the adoption of trustworthy and sovereign AI-enabled solutions by European companies.

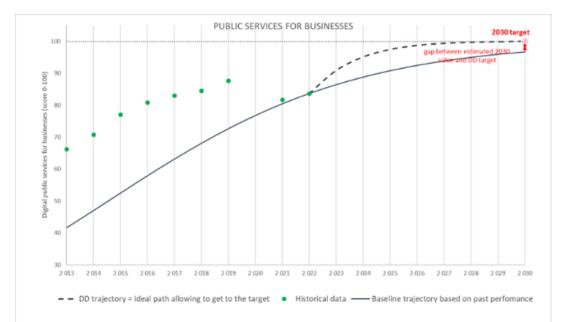
## **Example of specific recommended action:** *France* should step up its efforts in the area of digitalisation of

businesses. In particular, it should take specific action to improve SME rate of digitalisation, including in advanced technologies

# A concrete focus for action: The digitalisation of public services

#### Where are we now?

In general, 88% of central government services are completely online, compared to 76% for regional government services and 62% of local government services.



## What is our goal by 2030?

**General objective:** public services, health and care services are also accessible in a trusted and secure online environment for everyone, sovereignety

**Target:** The Digital Decade Policy Programme sets the target of full online availability of key public services for businesses in 2030.

### What is the way forward?

General recommendation: Member States should step up investment and regulatory measures to develop and make available secure, sovereign and interoperable digital solutions for online public and government services. Example of specific recommended action: Italy should step up its efforts to digitalise public services. In particular, it should speed up the implementation of existing and planned measures. A concrete focus for action: Increasing the Union's resilience

#### Where are we now?

Action to identify and address strategic dependencies is being taken through several means, e.g., a stronger industrial policy, Industrial Alliances and IPCEIs, the analysis of the Observatory for Critical Technologies, the EU Chips Act, the Proposal for a Critical Raw Materials Act. However, the vulnerability of the digital environment is still not monitored comprehensively.



#### What is our goal by 2030?

**General objective:** To reinforce Member States' collective resilience, including the resilience of the Union's value chains and the resilience to cyberattacks.

#### What is the way forward?

**General recommendation:** Building on the Economic Security Strategy, the Commission invites the Member States to develop a joint <u>stress test capacity</u> to monitor and anticipate risks that would affect the resilience of the digital ecosystem.

# **MULTI-COUNTRY PROJECTS**

Cooperation through large-scale projects among different Member States is the key to achieve our digital targets in areas like:



Common Data Infrastructure and Services



Low-Power Processors



Pan-European deployment of 5G corridors

111	111
(	
	1 285

High-Performance Computing



Secure Quantum Infrastructure and Network of Cybersecurity Centres



Digital Public Administration



Blockchain

Digital Innovation Hubs

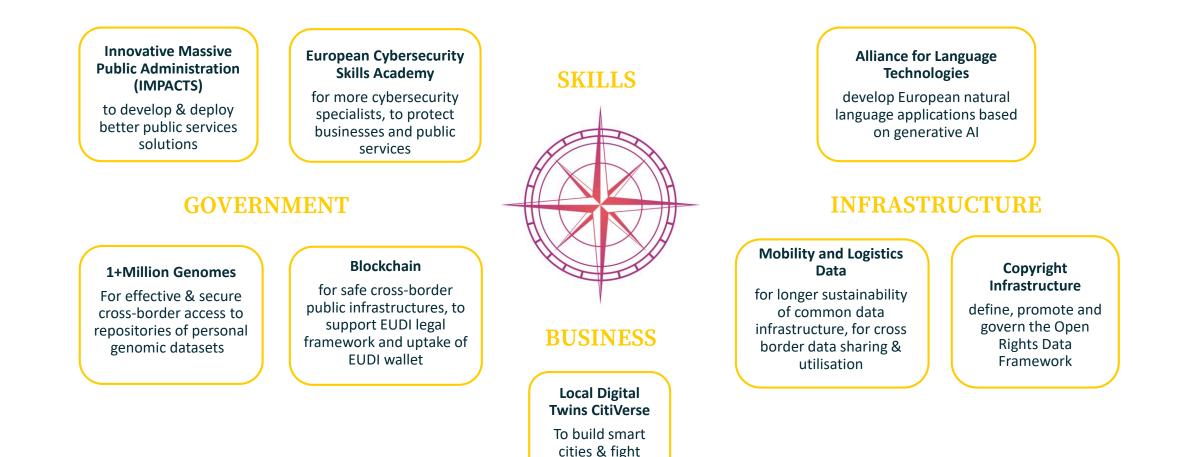


High-Tech Partnerships for Digital Skills



Skills and Training in Cybersecurity

# EDIC success less than one year after launch of the Digital Decade



climate change



# Consult our Digital Decade Community on Futurium



# Follow us for all things EU tech @DigitalEU

