Artificial Intelligence: European Strategy

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OUTLINE

AI strategy for Europe

AI funding in H2020:
- AI-on-Demand-Platform
- Digital Innovation Hubs

Socio-Economic changes

Ethics and regulation

Joining forces

& Next....

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Maximising benefits from AI

Economic impact ✅

+

Contribution to societal challenges ✅ ✅

Healthcare

Energy efficiency

Road safety

Cybersecurity

...

European Commission

EU Challenges

Staying at the forefront of in S&T

Access to Data

Inclusive: AI available/Usable for All

Evolution of the Labour landscape & Skill gaps
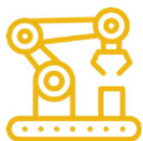
Acceptance/Ethical issues

Safety/Liability issues

Scattered Effort vs. Fierce International competition

EU strengths

- Excellent research centres

- World-leading position in robotics

- Strong business-to-business domain

- Strong industrial and services sectors: automotive, healthcare, agrifood

- Industrial data

European Commission

EU strategy for AI

A STRATEGY FOR EUROPE TO LEAD THE WAY

Boost technological and industrial capacity & AI uptake

Prepare for socio-economic changes

Ensure an appropriate ethical & legal framework

AI FOR GOOD AND FOR ALL

European Commission

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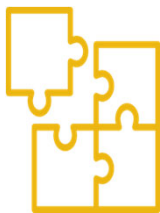| Boost technological and industrial capacity & AI uptake | Prepare for socio-economic changes | Ensure an appropriate ethical & legal framework |

AI FOR GOOD AND FOR ALL

European Commission

EU investments in AI

2018-2020: €1.5 billion in = 70%+ of annual investment

R&D and excellence centers

AI-on-demand platform

Digital Innovation Hubs

Industrial data platforms

Goal beyond 2020: Increasing investments from €4-5 billion / year today to €20 billion / year

European Commission

AI-ON-DEMAND PLATFORM (WP2018)

Central access point:

- **integrating tools and resources**

- offering **solutions and support to all users of AI** to integrate such technology into **application**, **products** and **services**

DIGITAL INNOVATION HUBS (DIH) ?

Commissioner Oettinger:
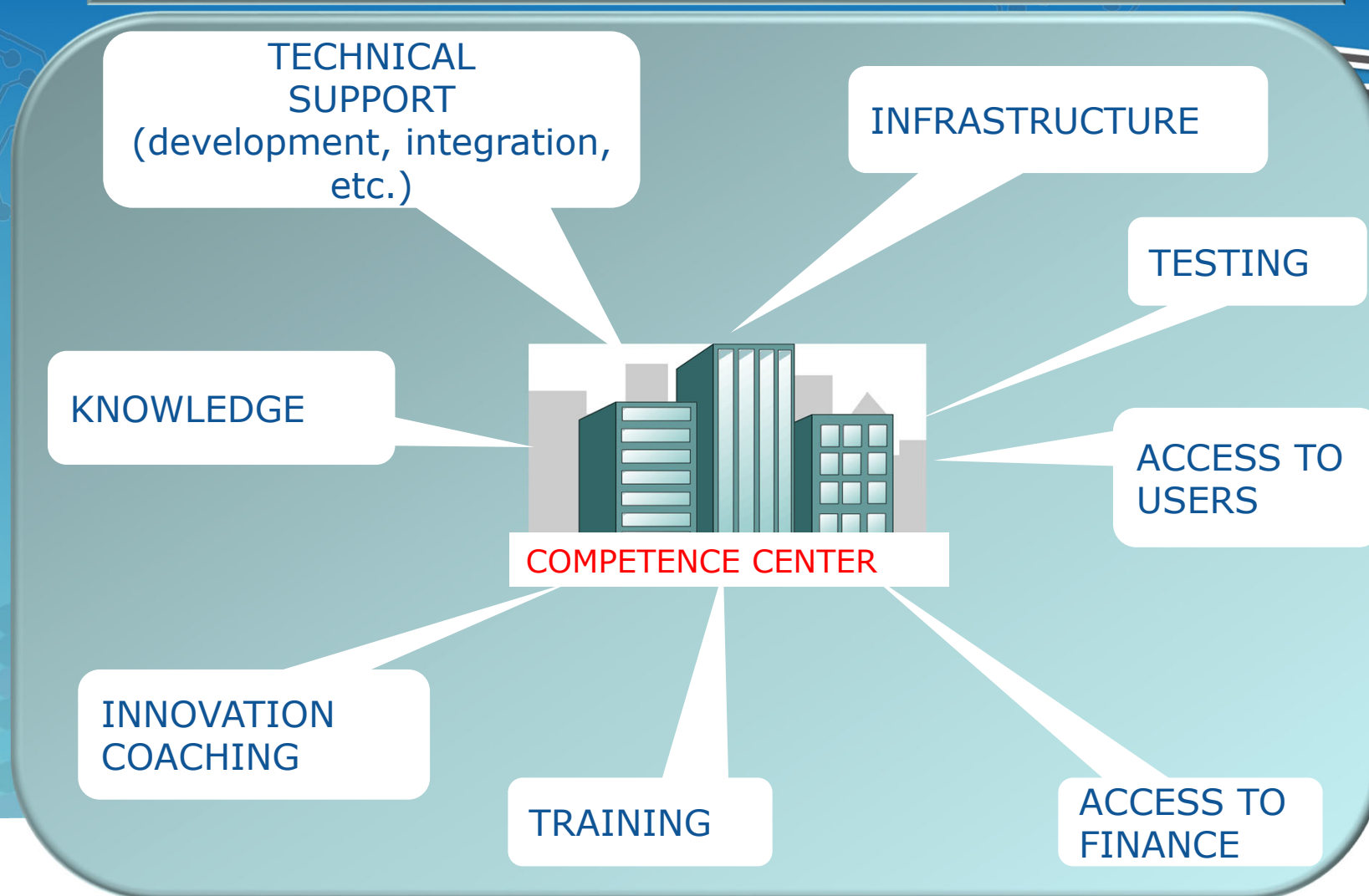"My objective is to have at least one world class digital innovation hub in every region in Europe."

Objective:

Access to digital technologies and expertise within "working distance" for any industry in Europe, especially SMEs, mid-caps, non-tech
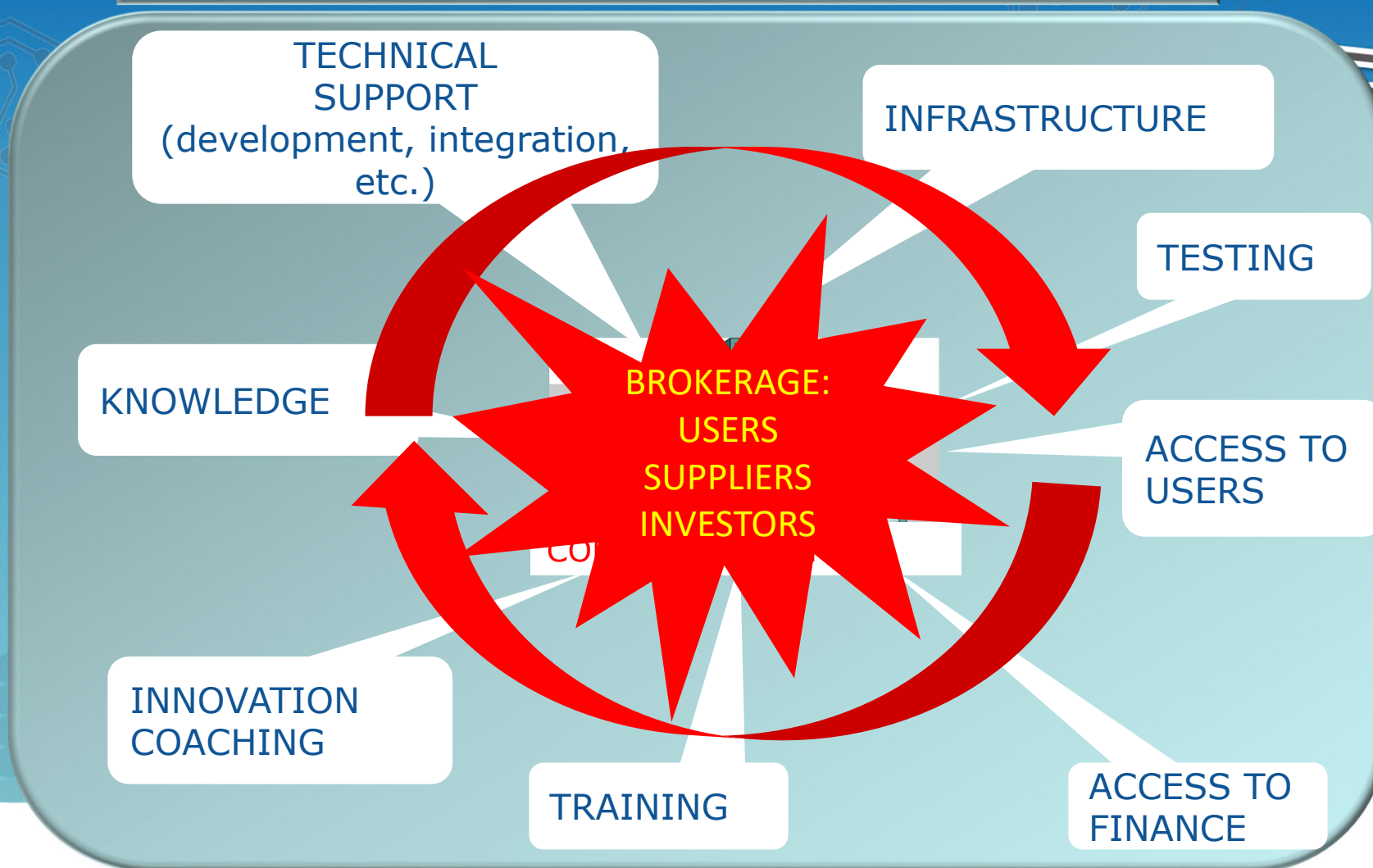
● **Regions and local authorities have a key role to play**

● **EU funding: at least 500 million € in H2020**

DIGITAL INNOVATION HUB: INGREDIENTS

TECHNICAL SUPPORT (development, integration, etc.)

INFRASTRUCTURE

TESTING

KNOWLEDGE

COMPETENCE CENTER

ACCESS TO USERS

INNOVATION COACHING

TRAINING

ACCESS TO FINANCE

DIGITAL INNOVATION HUB: INGREDIENTS

TECHNICAL SUPPORT (development, integration, etc.)

INFRASTRUCTURE

TESTING

KNOWLEDGE

BROKERAGE: USERS SUPPLIERS INVESTORS

ACCESS TO USERS

INNOVATION COACHING

TRAINING

ACCESS TO FINANCE

DIGITAL INNOVATION HUB: ACTORS

ACADEMIA

ENTREPRENEUR

INCUBATOR

GOVERNMENT

INDUSTRY

COMPETENCE CENTER
SHARED PHYSICAL
INFRASTRUCTURE & SUPPORT
(TECHNICAL, LEGAL,
ADMINISTRATIVE,
BUSINESS,...)

USERS COMMUNITY:
SMEs, CITIZENS,
LOCAL ECONOMIC ACTORS,...

INVESTORS

4

DIGITAL INNOVATION HUB: ACTORS
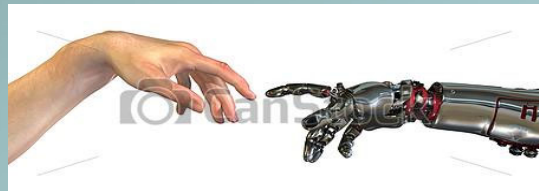
ACADEMIA

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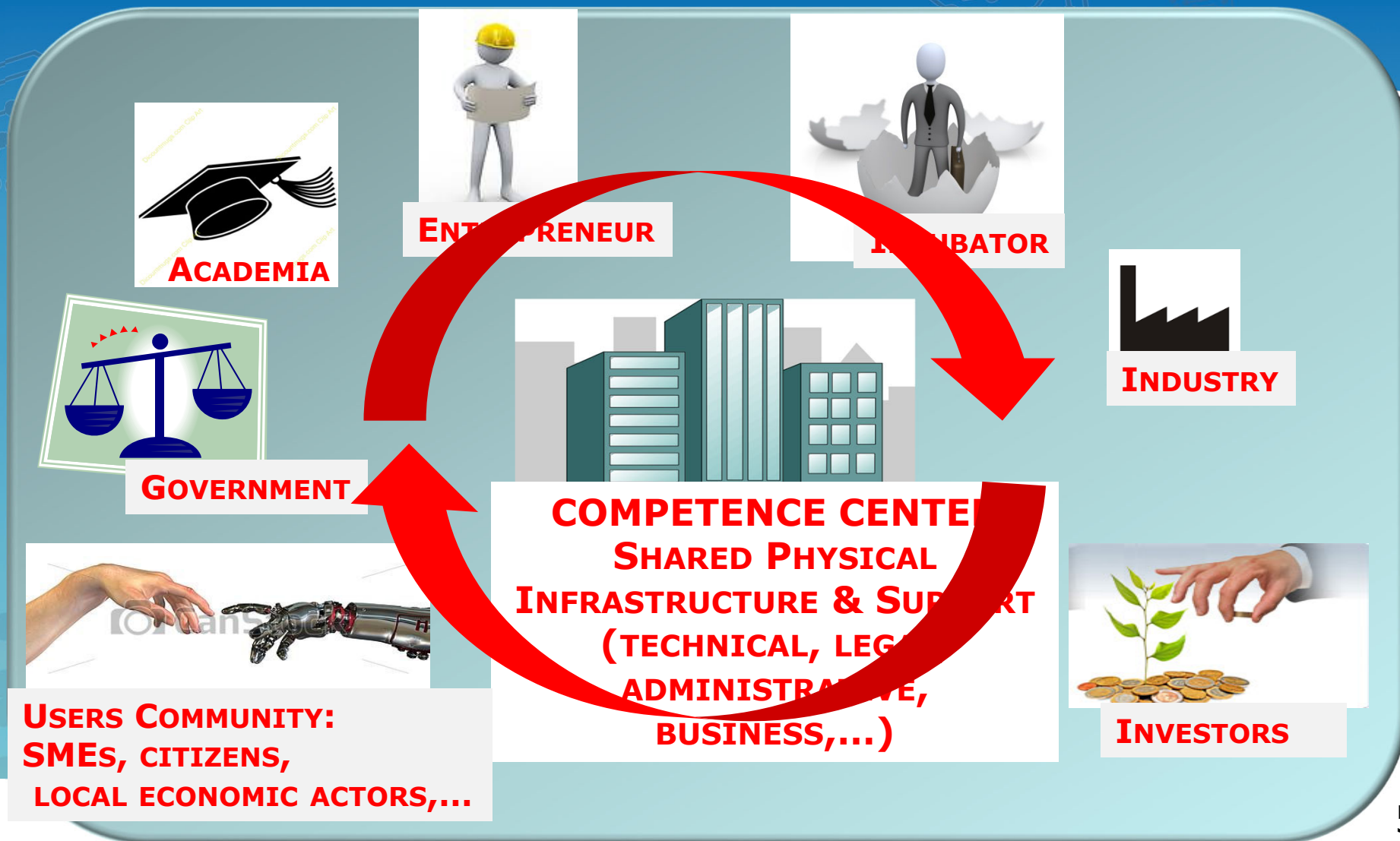(TECHNICAL, LEGAL,
ADMINISTRATIVE,
BUSINESS,...)

INVESTORS

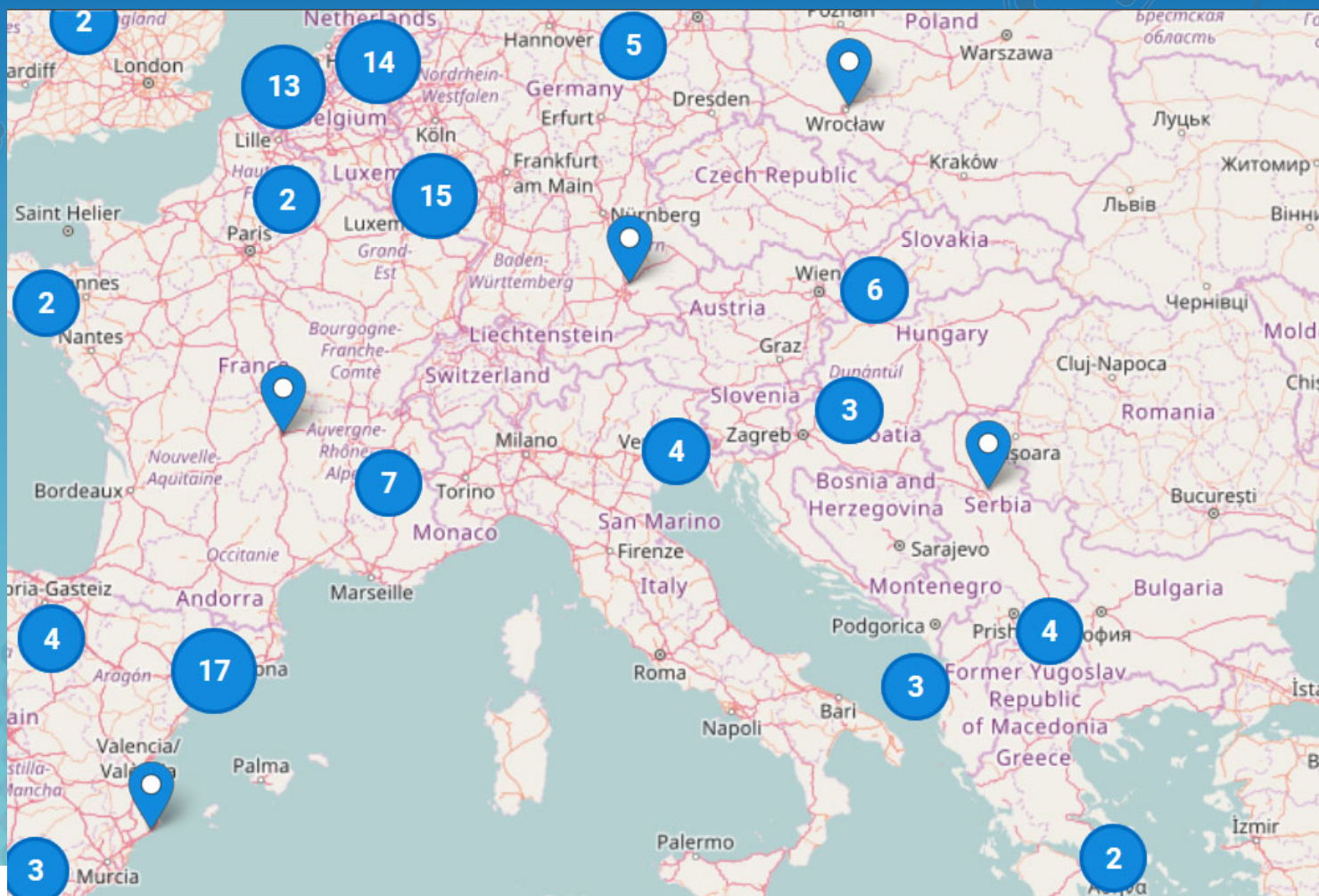USERS COMMUNITY:
SMEs, CITIZENS,
LOCAL ECONOMIC ACTORS,...

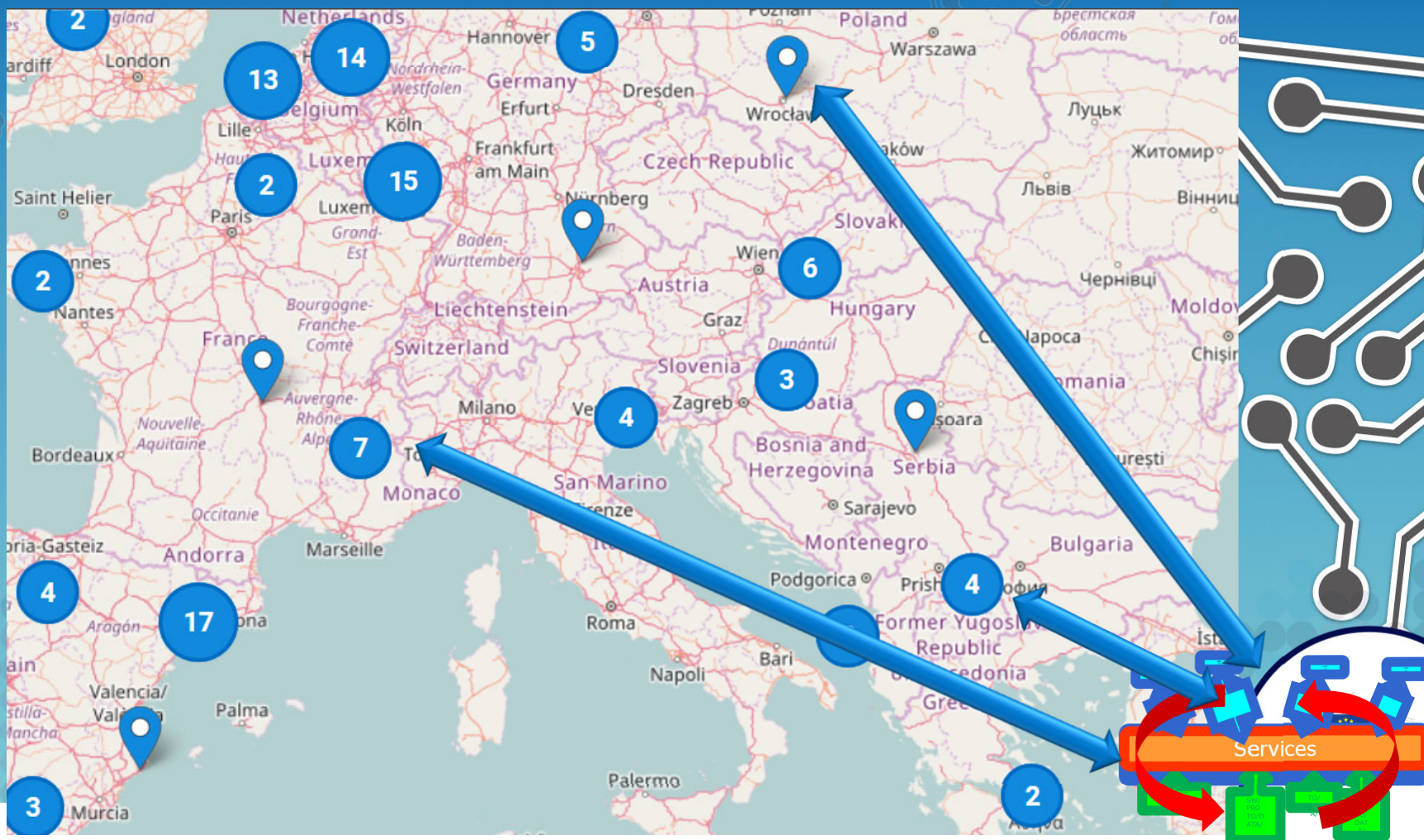# AI-RELATED DIHs – DISTRIBUTION

AI-RELATED DIHs – DISTRIBUTION

AI-ON-DEMAND PLATFORM:

Toolbox & Services

+

NETWORK OF DIGITAL INNOVATION HUBS IN AI:

Distribution Channel for AI to empower

 ALL local companies/Users

ADDITIONAL FUNDING

- Supporting breakthrough, market-creating innovation
→ pilot of European Innovation Council

- Stimulating more private investment in AI
→ European Fund for Strategic Investments

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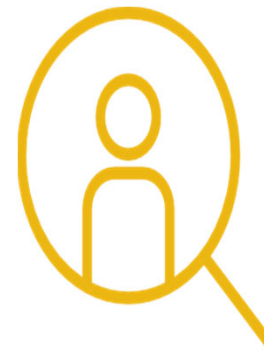## AI FOR GOOD AND FOR ALL

European Commission

Preparing for socio-economic challenges

Anticipating changes in
the labour market

Re-skilling the
workforce

Developing,
Attracting & retaining talent
(EIT, Digital Opportunity
Traineeships, Digital Europe
Programme)

European Commission

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AI FOR GOOD AND FOR ALL

European Commission

Ethical and legal framework

High level group of experts

Policy and Investment Recommendations by Mid 2019

Ethical priorities by early 2019

European Commission

The European AI Alliance

JOIN @
https://ec.europa.eu/digital-single-market/en/european-ai-alliance
And contribute to the debate

Ethical and legal framework

- Interpretation of the Product Liability Directive in light of technological developments
- Broader implications for, potential gaps in and orientations for, the liability and safety frameworks for AI, Internet of Things and robotics
- Pilot project on Algorithmic Awareness Building: challenges brought by automated decision-making, including biases and discrimination
- Supporting consumer organisations and data protection supervising authorities in building an understanding of AI powered applications
- Reflecting on interactions between AI and IPR, with a view to fostering innovation and legal certainty in a balanced way
- AI to create works can have implications on IP (patentability, copyright and right ownership)
- Assessment of the challenges faced by producers and users of new technology with respect of fundamental rights compliance

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All Member States and **Norway** signed the Declaration of cooperation on AI

Coordinated plan with Member States by end of 2018
Interaction with Member States via the
European platform on national initiatives to digitise industry

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DIGITAL IN THE NEXT MFF: OVERVIEW

Digital in Horizon Europe

1. Digital under "global challenges"
   - Digital and industry cluster
   - Digital in other clusters - health, mobility, energy, environment,..
2. FET Open under Open Innovation
3. Research Infra under O Science

€100 Bn with share to digital of 15Bn

Digital Europe

1. High Performance Computing (HPC)
2. Artificial Intelligence (AI)
3. Cybersecurity
4. Advanced digital skills
5. Digital transformation and interoperability

€9.2 Bn

CEF - Digital

Connectivity
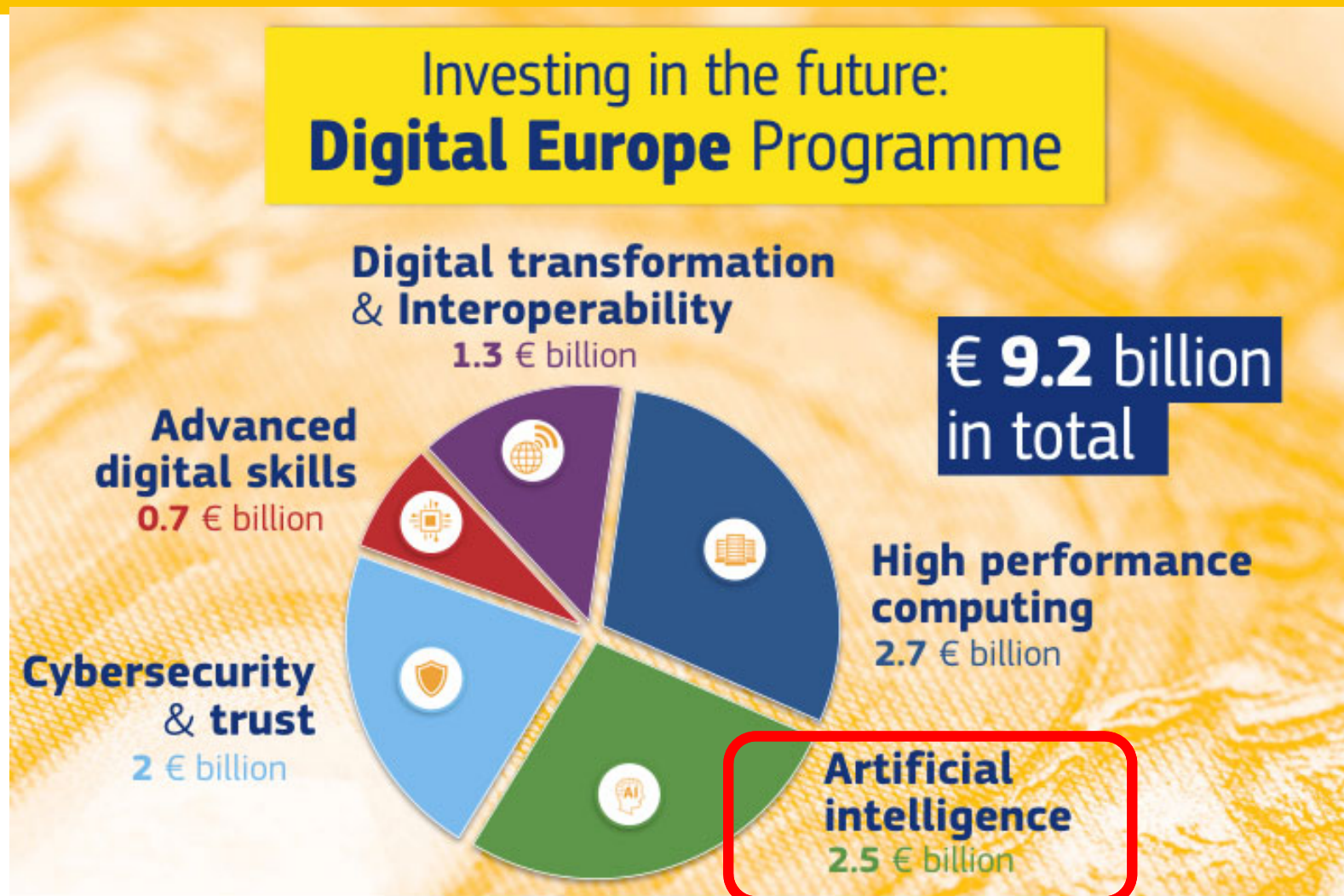- Synergies with Transport /Energy
- WIFI/BB 4EU
- 5G roll out

€3 Bn

MEDIA under Creative Europe within Cohesionand Values

- Distribution of works
- Creation

€1.1 Bn

DIGITAL EUROPE PROGRAMME: CAPACITY BUILDING AND DEPLOYMENT

Investing in the future:
Digital Europe Programme

Digital transformation & Interoperability
1.3 € billion

Advanced digital skills
0.7 € billion

€ **9.2** billion in total

High performance computing
2.7 € billion

Cybersecurity & trust
2 € billion

Artificial intelligence
2.5 € billion

#EUBudget
#DigitalEurope

European Commission | n sion

Investing in the future: **Digital Europe** Programme

€2.5 billion for **Artificial intelligence**

Bring the power of the AI to **businesses & public administrations**
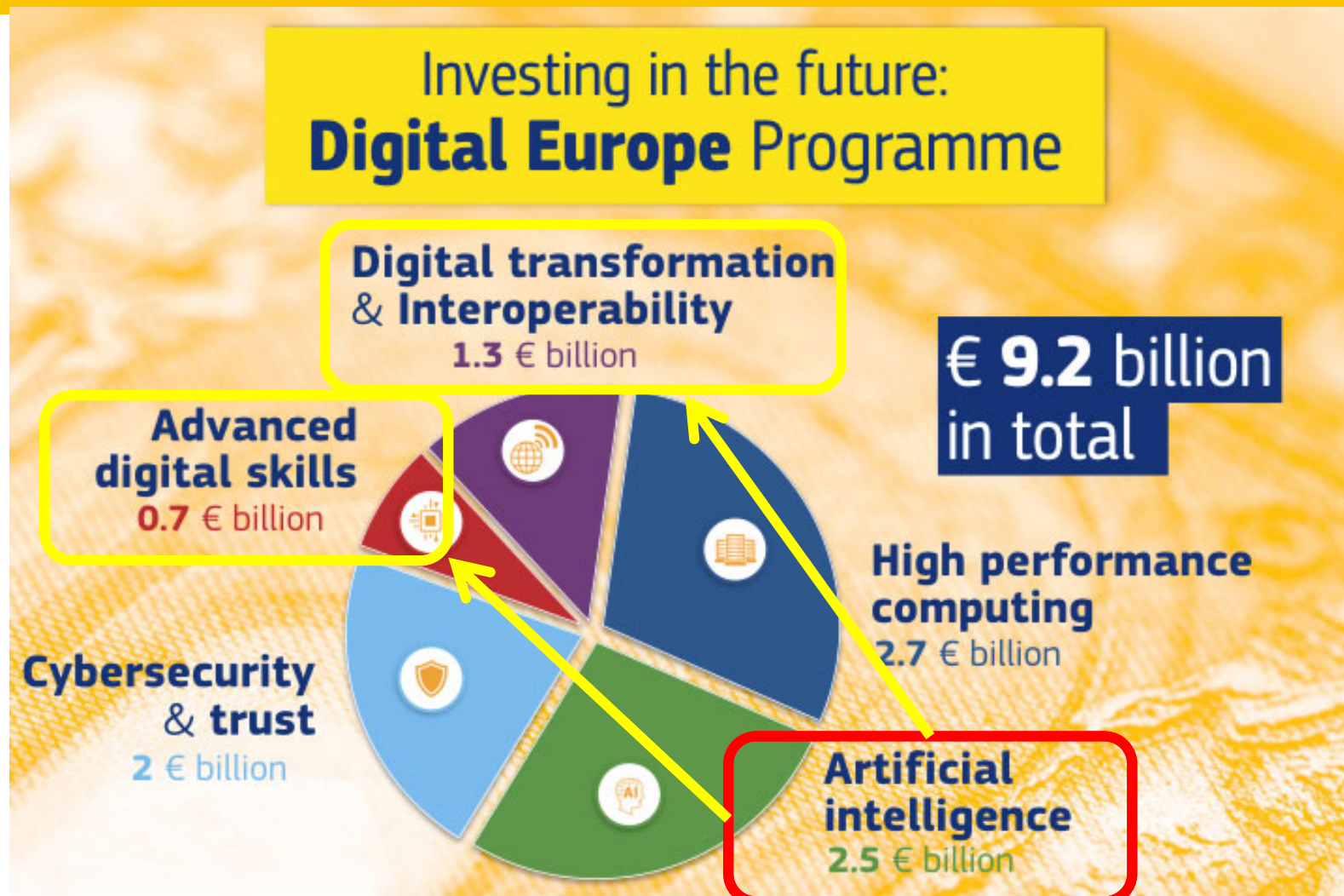
Strengthen **testing and experimentation** facilities across the EU

Facilitate safe **access** and **storage** of data and algorithms

#EUBudget
#DigitalEurope

European Commission

DIGITAL EUROPE PROGRAMME: CAPACITY BUILDING AND DEPLOYMENT

Horizon Europe: "AI and Robotics"

- *"advanced human-machine interactions"*

- *"Safe, smart and efficient robotics and complex embodied systems"*

- *"User-driven AI technologies for AI-based solutions"*

- *"Developing and networking the research competences of AI competence centres across Europe"*

- *Technologies for open AI platforms including software algorithms, data repositories, robotics and autonomous systems platforms*

EU actions and funding relating to AI:

Adobe Acrobat
Document

Thank you

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