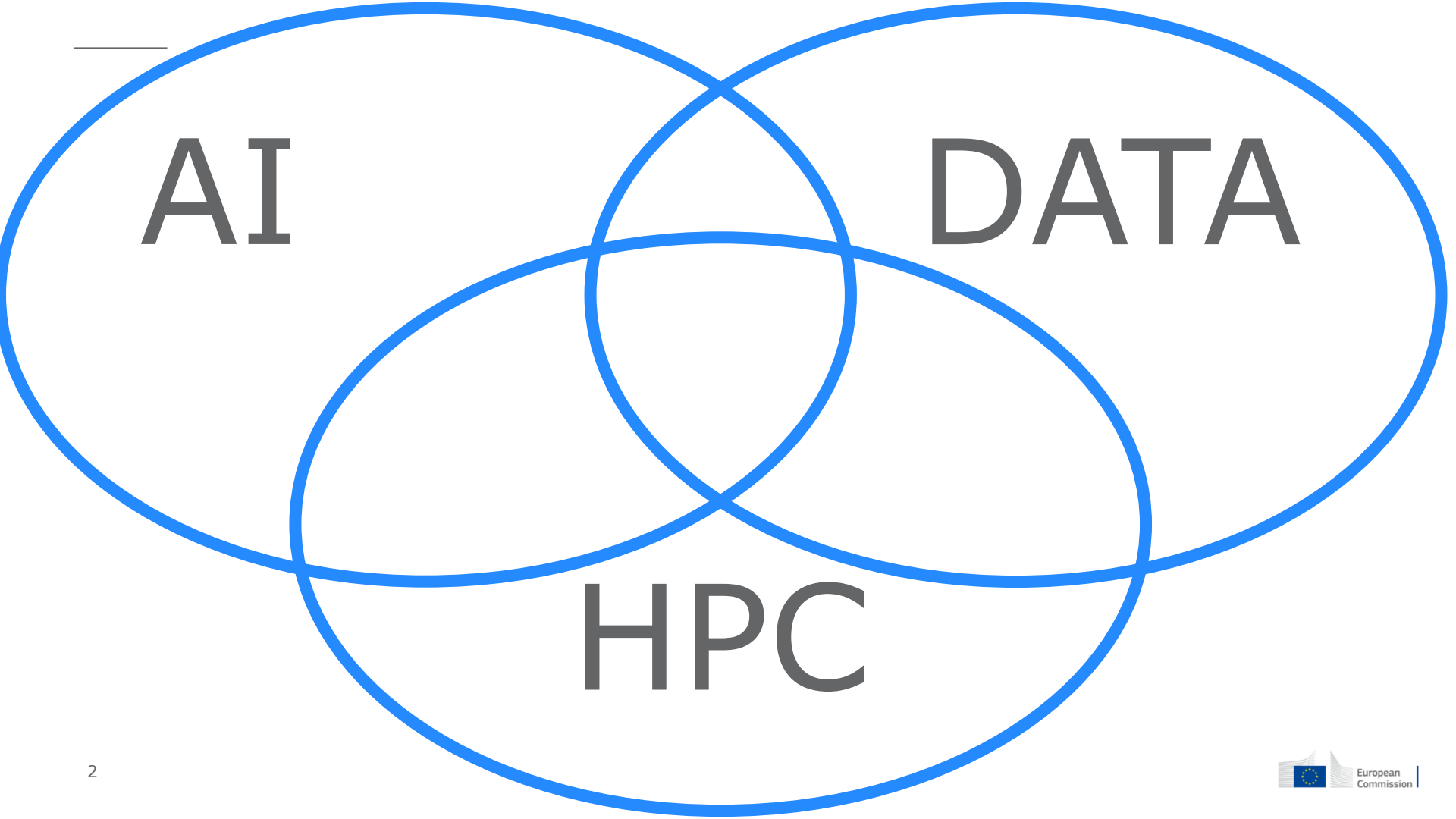




Digital Europe Horizon Europe: Future funding opportunities in Language Technologies *My Europe, My Language*

Philippe Gelin

Head of Sector Multilingualism
Directorate-General for Communications Networks, Content and Technology
European Commission



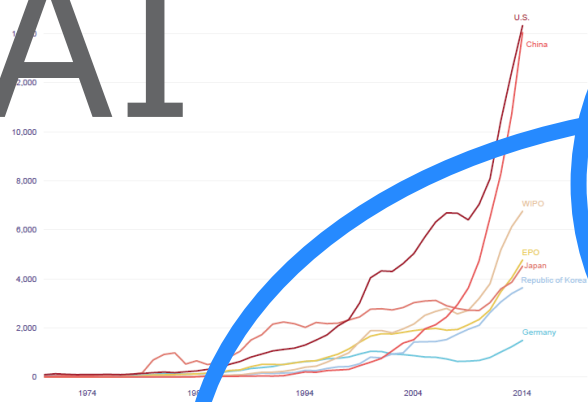
AI

DATA

HPC

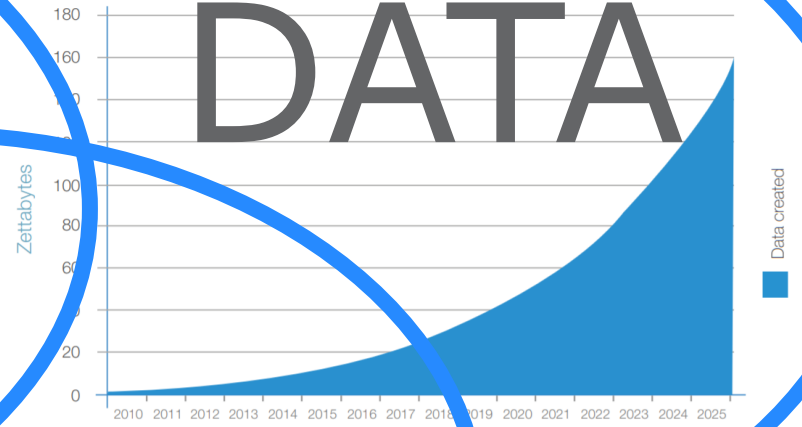
AI

Figure 5.3. Number of patent applications for different offices by earliest priority date
The number of patent applications filed in China grew by an average of 25 percent since 2009

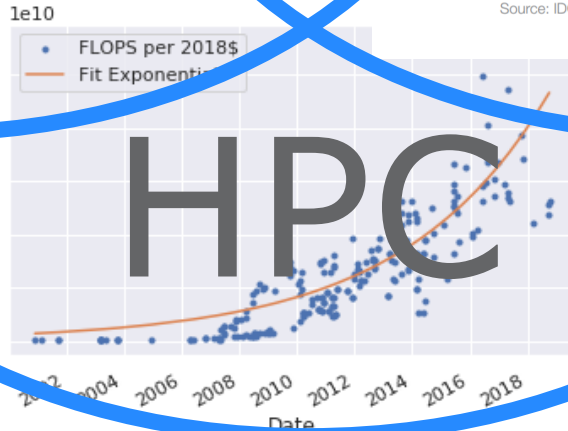


Annual Size of the Global Datasphere

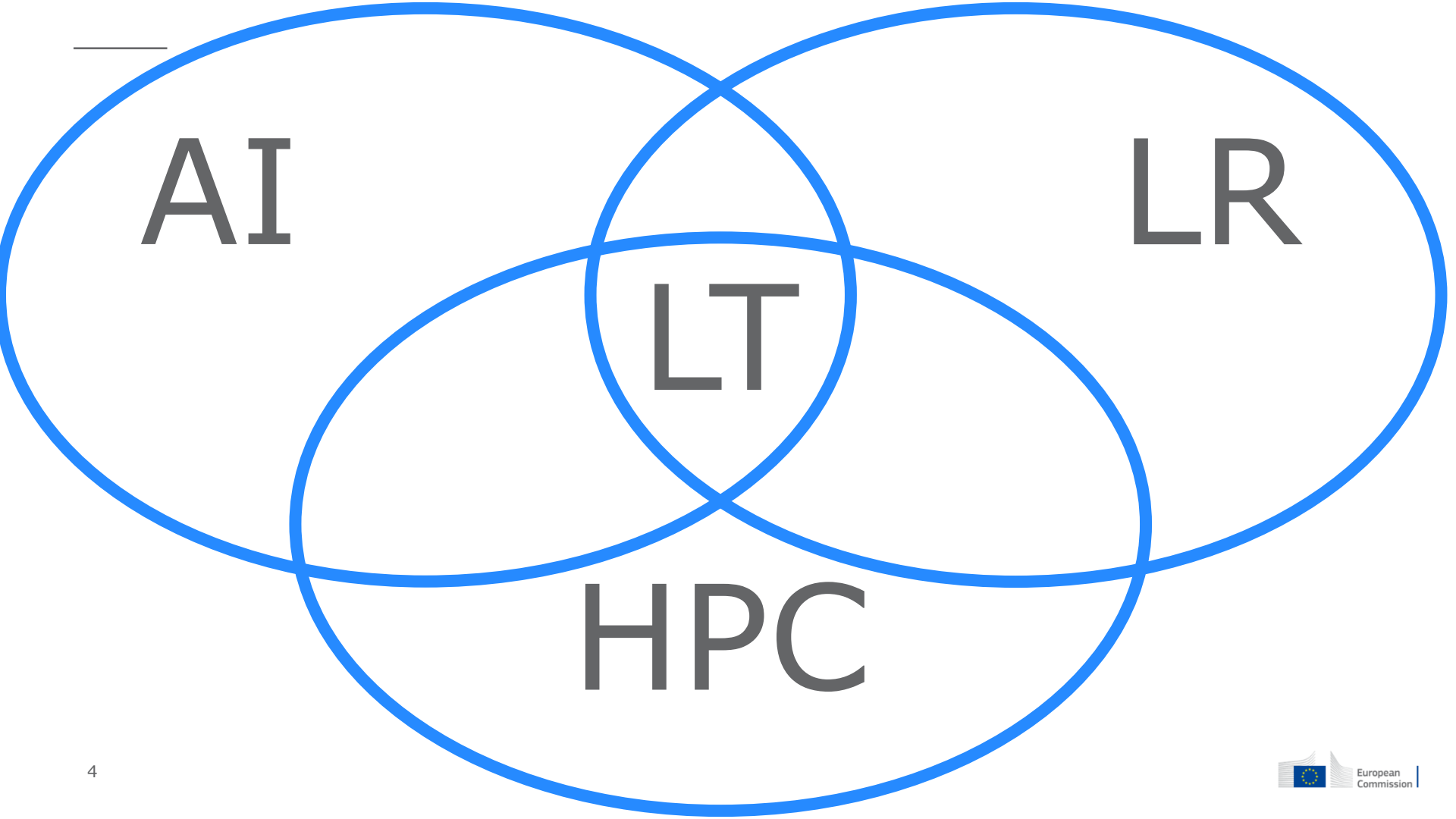
DATA



Source: IDC's Data Age 2025 study, sponsored by Seagate, April 2017



HPC



—

AI

LR

LT

HPC

AI & NLP

LR & Data
Spaces

LT

HPC & Cloud



Infrastructures

AI4EU, ELG, DIH & ELRC

A Platform providing services for many actors



Industry: Large companies



Start-ups



PPP Initiatives



Researchers



Developers



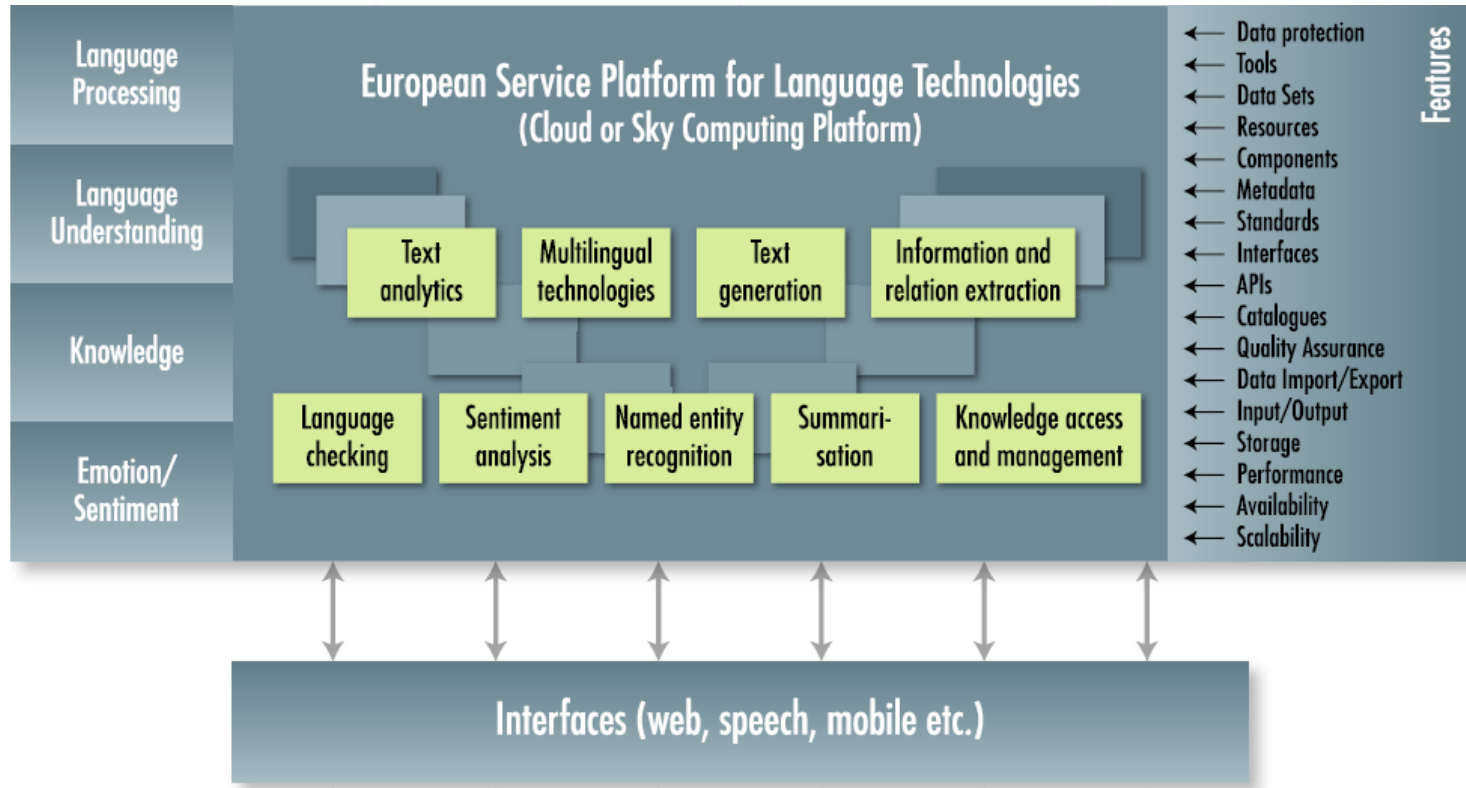
Teachers/Educators



Society

17+3M€ (started in 2019), 80 members

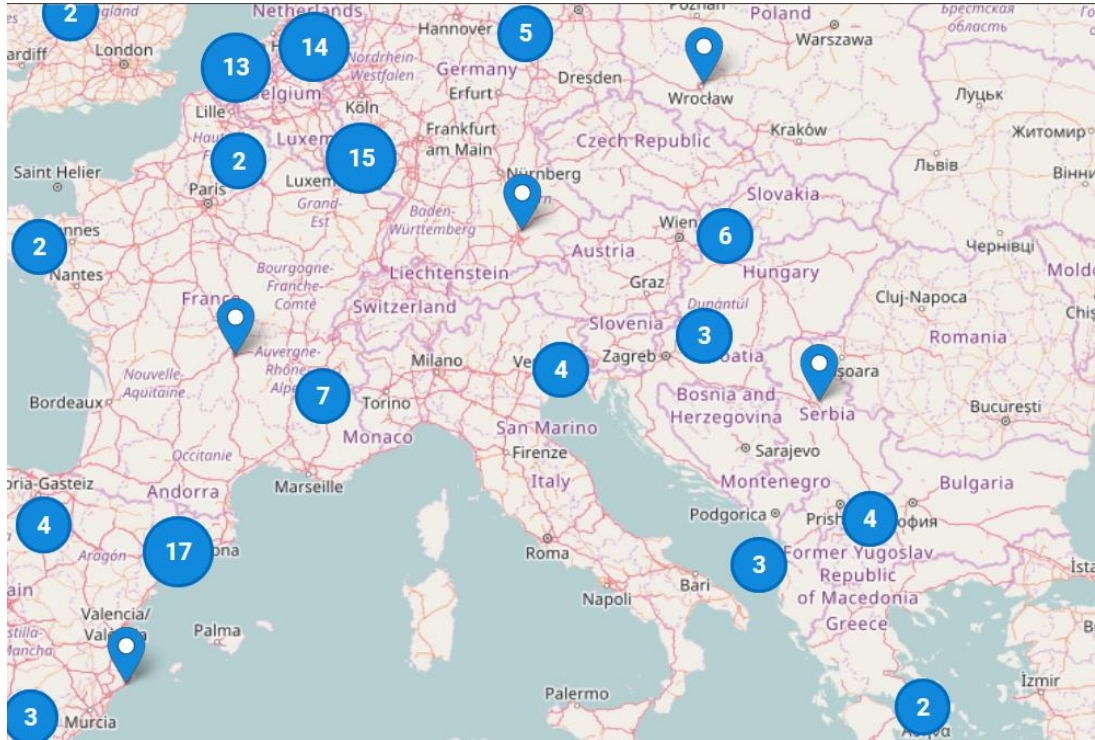
ELG – European Language Grid



From: META-NET
SRA (2013)



AI-related DIHs distribution



ELRC





Future



A BUDGET ALIGNED TO POLITICAL PRIORITIES

Simplification, transparency and flexibility

In billion euro, current prices



I. SINGLE MARKET, INNOVATION AND DIGITAL €187.4

- 1 Research and Innovation
- 2 European Strategic Investments
- 3 Single Market
- 4 Space



II. COHESION AND VALUES €442.4

- 5 Regional Development and Cohesion
- 6 Economic and Monetary Union
- 7 Investing in People, Social Cohesion and Values



III. NATURAL RESOURCES AND ENVIRONMENT €378.9

- 8 Agriculture and Maritime Policy
- 9 Environment and Climate Action



IV. MIGRATION AND BORDER MANAGEMENT €34.9

- 10 Migration
- 11 Border Management



V. SECURITY AND DEFENCE €27.5

- 12 Security
- 13 Defence
- 14 Crisis Response



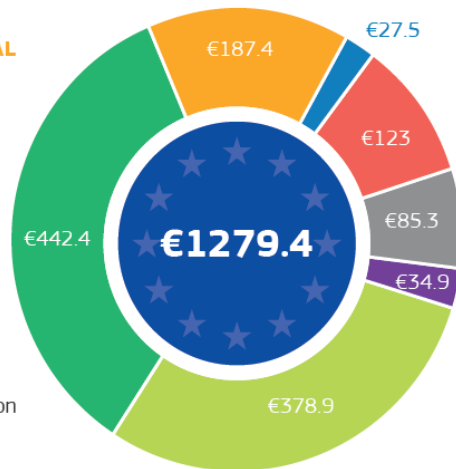
VI. NEIGHBOURHOOD AND THE WORLD €123

- 15 External Action
- 16 Pre-Accession Assistance



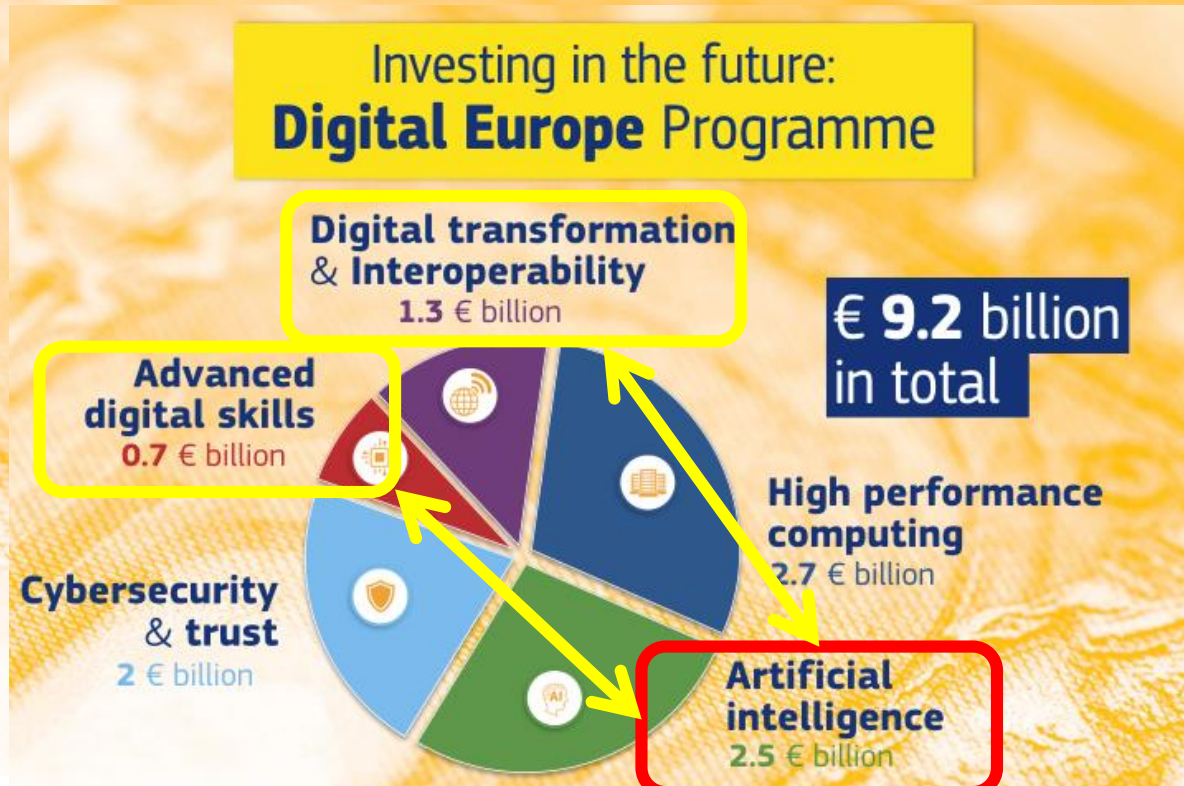
VII. EUROPEAN PUBLIC ADMINISTRATION €85.3

- 17 European Public Administration



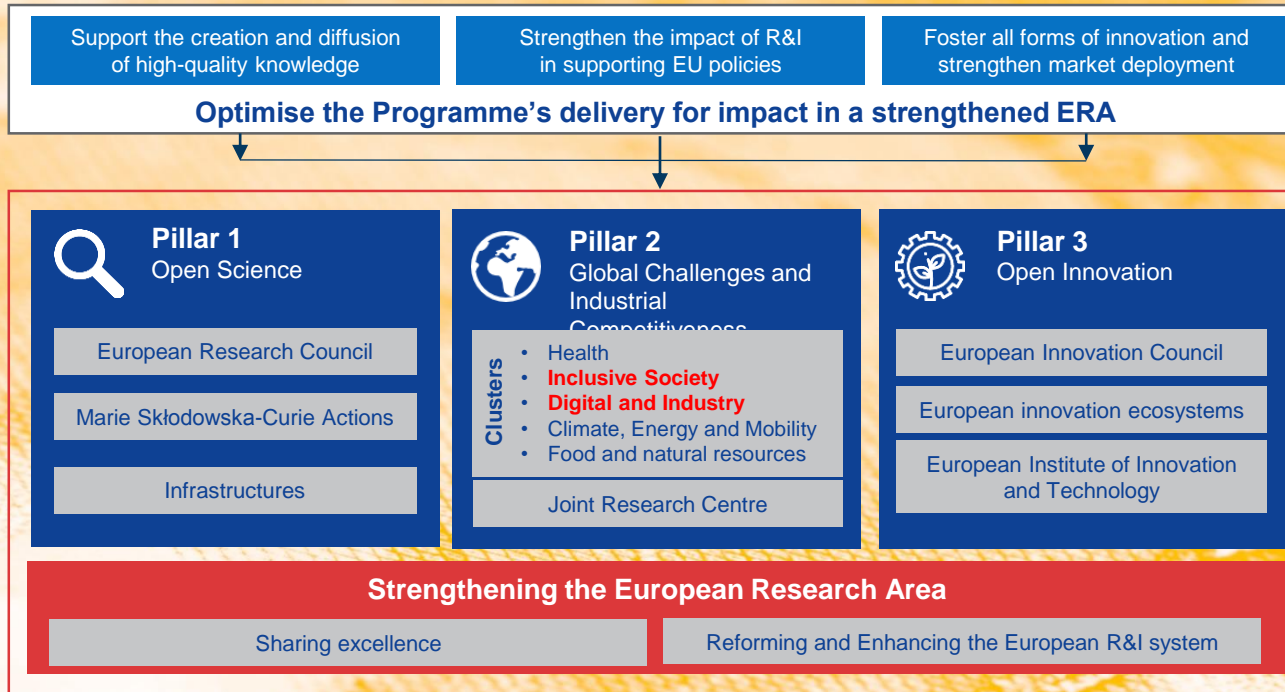
Source: European Commission

DIGITAL EUROPE PROGRAMME: CAPACITY BUILDING AND DEPLOYMENT

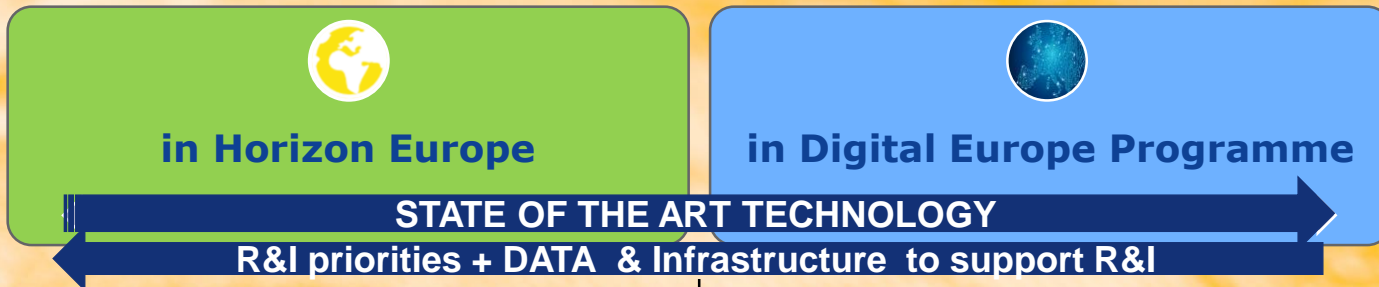


Horizon Europe: evolution not revolution

Specific objectives of the Programme



LANGUAGE TECHNOLOGIES & MULTILINGUALISM IN THE NEXT MFF



RESEARCH & INNOVATION

- **Cultural Heritage:**
Support Language Preservation
- **Next Generation Internet:**
Support research to achieve digital language transparency

CAPACITY BUILDING

- *Artificial Intelligence*
- *Data Spaces*
- *High Power Computing*

DEPLOYMENT & BEST USAGE

- *Cloud infrastructures*
- *Deployment of modern public services*

Widening the best use of Digital Technologies

- *Language Technologies*

MULTILINGUALISM IN MFF



in Horizon Europe

Support Language Preservation

Why: Most European languages are at risk of digital extinction

How: Collect language resources

Impact: Digital Humanities and Language Technologies

Where ?

Inclusive Society

Cultural Heritage

MULTILINGUALISM IN MFF



in Horizon Europe

Support research to achieve digital language transparency

Why: EU competitiveness and independence to external technology providers

How: Innovate in Language Technologies

Impact: keep EU Researchers Lower barriers in DSM

Where ?

**Next Generation Internet
Human-centric**

**Human-centric Internet
applications**



MULTILINGUALISM IN MFF



in Digital Europe
Programme

Capacity building

- *Data Spaces*

Data spaces include:

1. IT systems
2. domain-specific governance frameworks
3. standards
4. use of cloud infrastructures

Common European Data Space

Large sectoral data spaces



Health



Manufacturing



Agriculture



Finance



Mobility



Environment



Energy

Rich pool of data with varying degree of accessibility

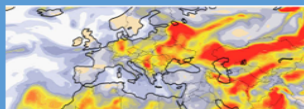
Free flow of data across sectors and countries

Full respect of GDPR

Framework for data access and governance

- Industrial platforms for data sharing
- Standards and interoperability (technical, semantic, legal)
- Sectoral data governance
- Cloud storage and processing

High-value data sets from the public sector



e.g. weather, geospatial, statistics



Personal data platforms (PIMS)



MULTILINGUALISM IN MFF



in Digital Europe Programme

Capacity building

- *Artificial Intelligence*

Developing Large Testing and Experimentation Facilities

1. A platform to design and manufacture edge intelligence components
2. Sectorial reference sites (health, agri-food,...)

Scaling up the European AI platform

1. Single access point to high quality tested AI resources,
2. Bring to industrial standard
3. User support to integrate AI into solutions, products and services.

MULTILINGUALISM IN MFF



in Digital Europe Programme

Capacity building

- *High Power Computing*

1. world-class exascale and post-exascale supercomputing and data infrastructure
2. develop, deploy, support access to and maintain in the EU
3. to develop and support a highly competitive and innovative HPC ecosystem.

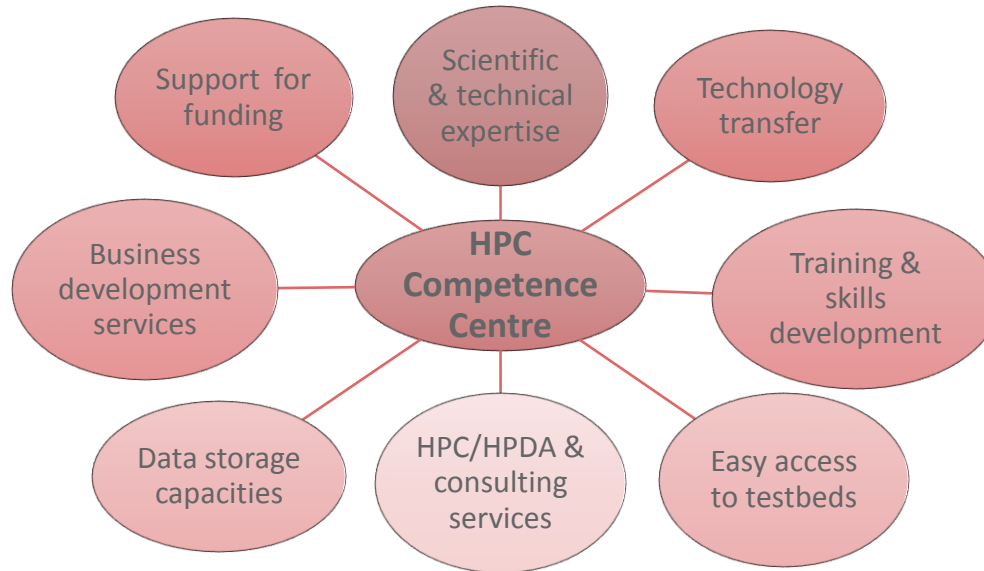
EuroHPC Joint Undertaking – The role of HPC Competence Centres



- **One HPC Competence Centre per Participating State – associated with national supercomputing centres**
- **Flexible focus depending on country situation to allow bridge-building from academia to industry and public administrations**
- **Modular approach to offer on-demand services and tools to users**
- **Access to the HPC innovation ecosystem, and to the supercomputers**
- **Access to skilled technical experts**
- **Training and outreach activities**
- **Networking and coordination with other Competence Centres**

Role of an HPC-Competence Centre

**A 'one-stop-shop' offering services mainly to industry (including SMEs),
and to public administrations**



**Focus support on few industry sectors and with their relevant European
Technology Platforms**

MULTILINGUALISM IN MFF



in Digital Europe Programme

DEPLOYMENT & BEST USAGE

- *Cloud infrastructures*

Public nature:

1. public services provisioned by public administrations and
2. health services by hospitals

Economic nature:

1. transport
2. Energy
3. environment

MULTILINGUALISM IN MFF



in Digital Europe Programme

DEPLOYMENT & BEST USAGE

Deployment of modern public services

- *Citizen centric digital public services*

1. a **Digital Transformation Platform Ecosystem** for interoperability of data and services across borders and domains, & the open data platform
2. **Technical specifications** and infrastructure to support cross-border once-only principle,
3. The **once only principle** infrastructure
4. An **interoperability incubator** fostering the creation of innovative gov-tech services.

MULTILINGUALISM IN MFF



in Digital Europe Programme

Technologies supporting deployment of digital services

- *Cloud Federation as a Service*

- Deployment of a ***public nature*** federation of pan-European cloud services
- Deployment of a ***economic nature*** federation of pan-European cloud **services** focussing on transport, energy and climate services in the first two years.
- *(including data storage, data exchange and data optimisation services)*


MULTILINGUALISM IN MFF



in Digital Europe Programme

WIDENING THE BEST USE OF DIGITAL TECHNOLOGIES

- *Language Technologies*

- 
1. **Standardisation, localisation, testing, and piloting local and cross border deployment**
 2. automatic aggregation of from the **data space** and **access to HPC capabilities** to support the processing, development and deployment of localised language technologies
 3. **network of local anchor points** to identify, analyse and adapt to digital trends, establish the needs and priorities of the public and private sectors, share best practice, and contribute to common specifications and standards.

MULTILINGUALISM IN MFF




in Digital Europe
Programme

Language Technologies

- *Ecosystem of technology providers*
- *Access to the necessary **data sets***
- *Access to the necessary **computing power***
- *Access to the necessary **algorithm***
- ***Localisation** and uptake of language technologies.*

Language Technology Industry

Administrations
Member States
Commission

Provided by
Commission

Provided by
Industry

Services

Research
Source code

RESEARCH



Draft Concept

European Small and Medium Sized Enterprises

SMEs GmbH Ltd SàRL A.E. d.o.o. s.r.o. S.M.B.A. SIA OÜ Oy A.V.E.E. Kft. S.r.l. UAB Etc.

Member States (co-finance)

Language Technology Industry

Provided by
Commission

Provided by
Industry

Services

Research
Source code



RESEARCH

Administrations
Member States
Commission



HPC



COU



AI



DATA



eSKILLS

Draft Concept

European Digital Innovation Hubs (EDIH)

European Small and Medium Sized Enterprises

SMEs GmbH Ltd SàRL A.E. d.o.o. s.r.o. S.M.B.A. SIA OÜ Oy A.V.E.E. Kft. S.r.l. UAB Etc.

Links & contacts



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Dir G: Data

Unit G3: Accessibility, **Multilingualism** and Safer Internet

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