

The Digital Europe Programme and the Common European Language Data Space

LDS workshop in Cyprus

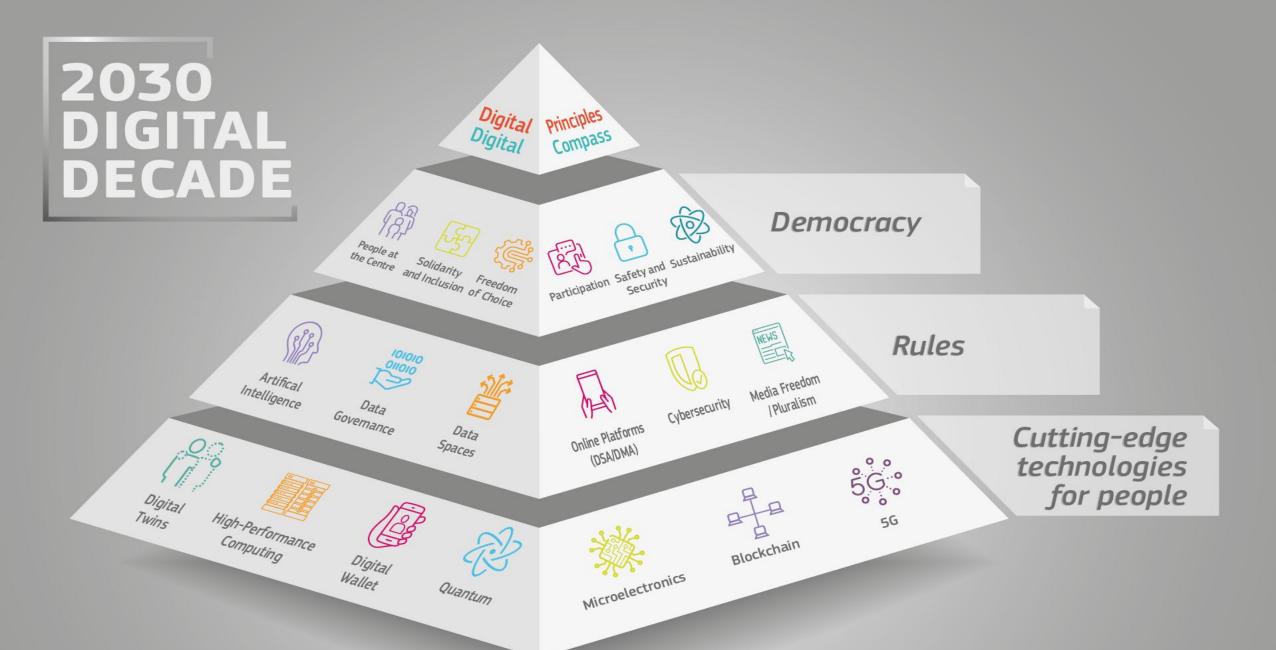
Language Technology for a Multilingual Europe

Philippe GELIN DG CONNECT – G3



Revolution





Language Technology Landscape

LT Crucial for Preserving Identity and Competitiveness

Maintaining languages, cultures, and diversity

Achieving efficiency in a multilingual Europe

Turning diversity into opportunities



Language Technology Landscape

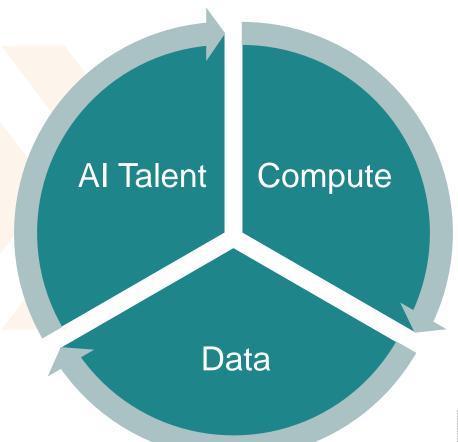
LT Crucial for Preserving Identity and Competitiveness

Maintaining languages, cultures, and diversity

Achieving efficiency in a multilingual Europe

Turning diversity into opportunities

European Commission's Actions





Language Technology Landscape

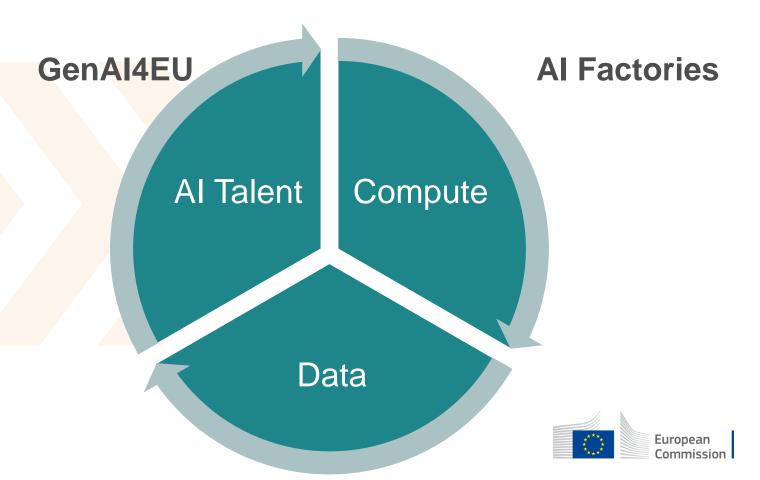
LT Crucial for Preserving Identity and Competitiveness

European Commission's Actions

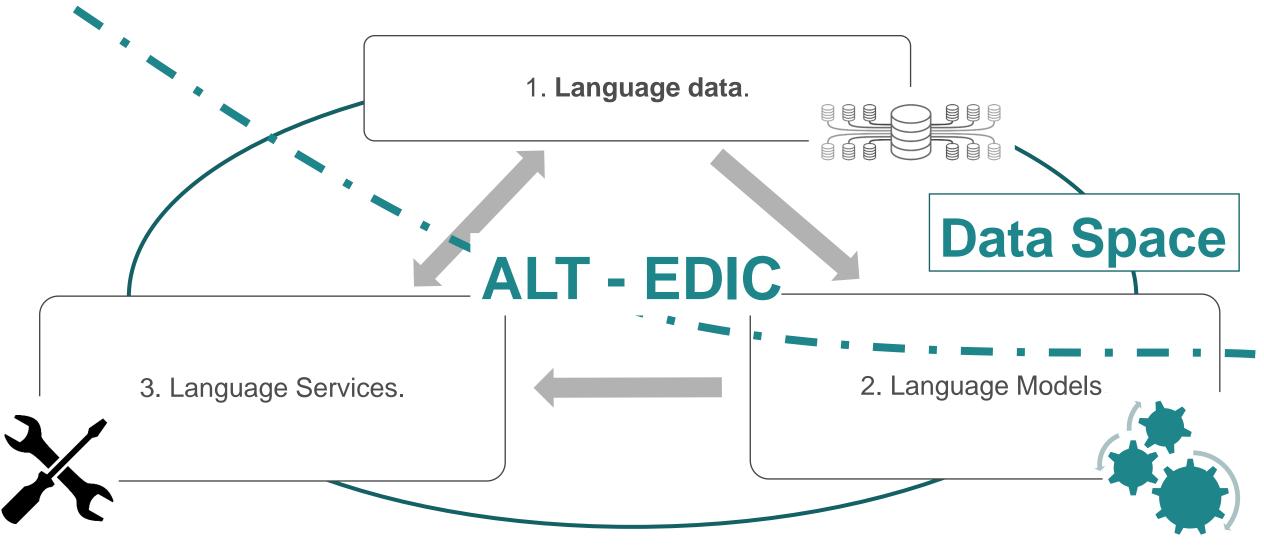
Maintaining languages, cultures, and diversity

Achieving efficiency in a multilingual Europe

Turning diversity into opportunities



European Language Technologies Landscape



The Common European Language Data Space (LDS)

- Overview
- Architecture



Language Data Space – Overview

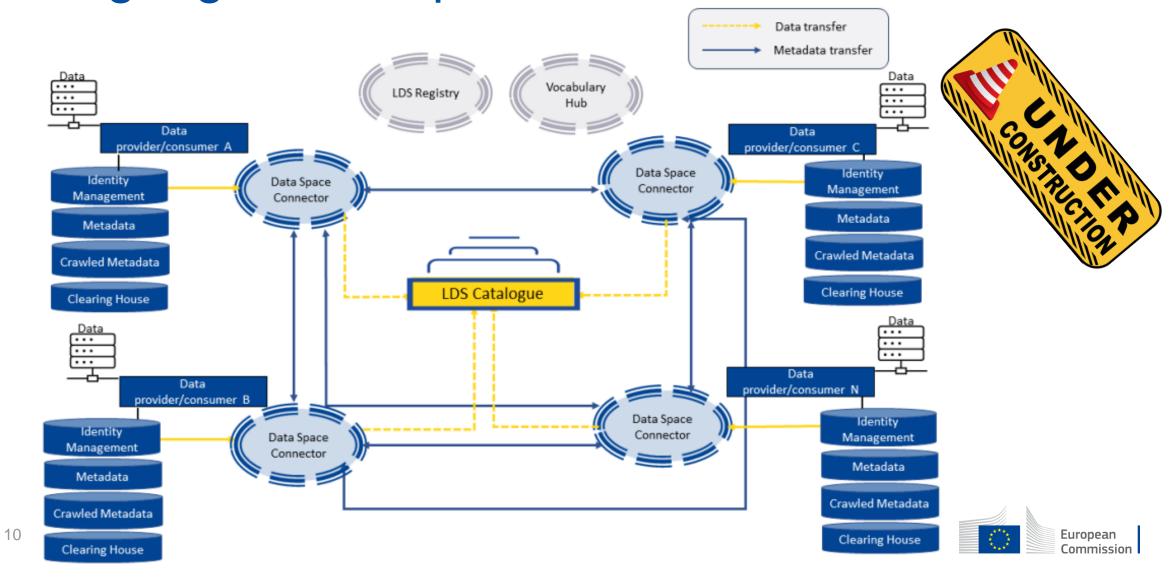


What	Platform and marketplace for the collection, creation, sharing and re-use of multilingual and multimodal language data	
	6 Mio € Procurement Contract from the DIGITAL Work Programme 2021-2022	
Why	Increase availability of clean, high-quality, compliant language data	
	Support the development of state-of-the-art European language technologies	
Who	Consortium: DFKI, ELDA, TILDE, Athena Institute	
	Governance: Member States representatives and Industry User group	
	Stakeholders: Industry, Public Administration, Research, etc.	
How	- Technical Architecture and Infrastructure	- Openess
	- Governance Framework	- Respect of EU Rules and Values
	- Promotion	- Overcoming Legal Barriers (IPR, GDPR, etc.)
When	Started in January 2023 for Three years – until end 2025 (Possible contract renewal for another year).	
	First version expected in Q4 2024	
		Furonean



Language Data Space – Architecture





Alliance for Language Technology EDIC (ALT-EDIC)



ALT-EDIC

Alliance for Language Technologies European Digital Infrastructure Consortium

Objectives

Preserve linguistic and cultural diversity in Europe

Technological leadership and strategic autonomy

Respect European rules and values

Cooperation

Raising awareness

Participation

Members [17]

FR, BG, CZ, DK, ES, FI, GR, HR, HU, IE, IT, LT, LV, LU, NL, PL, SI

Observers [8]

AT, BE, **CY**, EE, MT, PT, RO, SK

Interested [2]

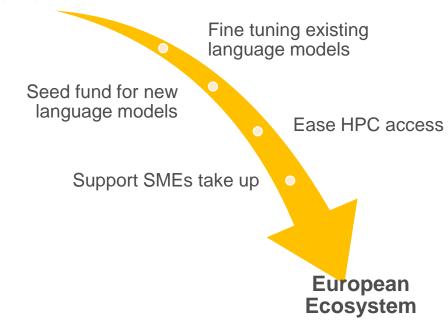
DE, SE

BUDGET

50M€

Actions Plan

Federate MS and EU language data resources





Action Plan - Data

Data Ecosystem

Support the development and training of Language Models (LMs)



Language Coverage

Ensures a diverse and inclusive linguistic landscape.

- All European Languages
- Addresses the scarcity of training data for specific languages (less spoken languages)

Federation of Resources

- Federate existing EU and Member States language and multimodal resources.
- Foster exchange and collection of high-quality language data

Synergies

- Leverage the capabilities of the Language Data Space.
- Synergies with Member States initiatives



Action Plan – Existing Models

Open-Source Repository

- Creation of a comprehensive repository of existing open-source language models.
- Facilitating reuse by industrial actors within the ALT-EDIC ecosystem.

Existing Models

Fine-Tuning Methods for SMEs

- Development of tailored methods for fine-tuning language models.
- Focus on ensuring accessibility for SMEs in AI development.

Methodologies for Evaluation

- Introduction of robust methodologies for evaluating and certifying language models.
- Emphasis on ensuring high standards and performance in language technologies.

Addressing Bias in NLP Models

Implementation of measures for fair evaluation, certification, and normalization



Action Plan – New Models

Seed fund for new Language Models

- ALT-EDIC operates as a central pool seed fund.
- Facilitates the aggregation of public and private resources for language model projects.

New Models

Public-Private Collaboration

- Encourages collaboration between public and private entities.
- Aims to leverage diverse resources for robust and innovative language model development.

Access to High-Performance Computing (HPC)

- Provides essential access to European High-Performance Computing (HPC) resources.

Project Launch and Development

Enables the launch and ongoing development of new Large Language Model projects



Action Plan – Ecosystem

Advisory Hub

- ALT-EDIC functions as a central advisory point.
- Offers guidance to public administrations on AI and language technologies.

Cultural Program on Al-based Language Technologies

- Implements a cultural program centered around AI for languages.
- Aims to engage the public in discussions and awareness about AI and language technologies.

Ecosystem

Empowering Language Technologies End-Users

- Focuses on empowering Language Technology end-users.
- Encourages end-users to become contributors and active participants in the Language Technology landscape.

Multilingual Context

- Addresses challenges of AI and language technologies in a multilingual context



DIGITAL Work Programme 2024 (3 projects)

ALT-EDIC4EU

€ 4 millions Coordination and Support Action (100%)

Support the Coordination of a European Language Technologies Ecosystem

LLMs4EU

€ 20 millions Simple Grant (50%)

Support the Collection of Language Data
Support Fine-tuning of Large Language Models

OPENEuroLLM

€ 25 millions SME Grant (75%)

Develop and make available one opensource large language foundation model



Thank you



© European Union 2023

Unless otherwise noted the reuse of this presentation is authorised under the <u>CC BY 4.0</u> license. For any use or reproduction of elements that are not owned by the EU, permission may need to be sought directly from the respective right holders.

Slide xx: element concerned, source: e.g. Fotolia.com; Slide xx: element concerned, source: e.g. iStock.com

