Advancing KInIT as a European Centre of Excellence in Low Resource AI

lorAI

lorAI is an EU-funded Horizon Europe, Teaming for Excellence project, strengthening KInIT's research capacity, international collaboration, talent development and technology transfer.

About the project

The lorAI project aims to upgrade the Kempelen Institute of Intelligent Technologies (KInIT) into a leading European centre of excellence in low-resource artificial intelligence.

Three pillars of lorAI's impact

- Nurturing talent and personal capacities
- Pursuing research excellence in low resource AI
- Knowledge and technology transfer

What does low-resource AI mean?

Many AI systems depend on vast amounts of data, human-labelled examples, and substantial computing resources. These resources are not equally available across languages, domains, organisations, or applications. For example smaller languages like Slovak often lack the large datasets used to train modern AI systems. Annotating data is costly and time-consuming. Training large models demands vast computing resources. lorAI tackles all three challenges: exploring how to build AI that is robust, reliable, stable, and adaptable even under these constraints. Low-resource AI thus covers:

- **limited data**
- **limited labels**
- **limited computing power**

Why does it matter? What will lorAI change?

- Increase research and innovation (R&I) capacities and competences of KInIT
- Pursue new research strands and frontier research in low resource AI
- Upgrade and integrate R&I processes and services of Centre of Excellence
- Increase competitive funding acquisition capacity and know-how of Centre of Excellence and Slovakia's AI R&I community
- Expand and deepen R&I culture and stimulate reforms in Slovakia
- Establish mutually beneficial international collaborations of Centre of Excellence and Slovak R&I with the international AI community and advanced partners

Consortium

KInIT

Kempelen Institute of Intelligent Technologies (KInIT)

An independent, non-profit center for research talent, catalyzing the knowledge economy of Central and Eastern Europe. KInIT brings together industry and academia in the field of intelligent technologies. During its existence, KInIT has secured funding from multiple European and national projects, and built partnerships with 90+ organisations across 25 European countries. Recognised by the Slovak government as a new model for R&I in Slovakia.

ADAPT

Centre for Digital Content Technology (ADAPT)

A world-leading Science Foundation Ireland Research Centre for AI-driven digital content technology hosted by Trinity College Dublin. ADAPT brings together 400+ academics and industry partners and has extensive experience coordinating EU research projects, having secured over €50M in competitive funding since 2015.

dfki ai

German Research Center for Artificial Intelligence (DFKI)

Germany's leading AI research institution and the largest AI research centre in the world by both staff and externally acquired funding. DFKI operates as a non-profit public-private partnership, internationally recognised as a blueprint for research organisation, and currently runs 500+ funded projects with academic and industrial partners.

CERTH CENTRE FOR RESEARCH & TECHNOLOGY HELLAS

Centre for Research & Technology Hellas (CERTH)

One of the largest research centres in Greece and among the top 20 in Europe for attracting Horizon Europe funds, with 800+ EU grants to its name. CERTH combines unique research infrastructure with a strong track record in technology transfer, dissemination, and translating science into real-world impact.

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PROGRAMME SLOVAKIA

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