AI Reference Testing and Experimentation facilities for the manufacturing sector in the Digital Europe Programme
-- Background --

1. COORDINATED PLAN ON ARTIFICIAL INTELLIGENCE

The EC Communication "Coordinated Plan on Artificial Intelligence"[1] states the following:

"**Establishing world-reference testing facilities[2]**: An important step in bringing technology to market relates to experimenting and testing state-of-the art technology in real-world environments. To optimise investment and avoid duplication or competing efforts, a limited number of specialised large-scale reference sites should be developed and be opened to all actors across Europe.

Examples of such testing facilities include the cross-border testing of connected and autonomous driving, test sites for autonomous shipping and the creation of data spaces. The Commission and the Member States will identify the need for new large-scale testing facilities for the latest AI technologies in key areas such as mobility, healthcare, manufacturing, agro-food or security. These testing facilities may include regulatory sandboxes (i.e. areas where regulation is limited or favourable to testing new products and services) in selected areas where the law provides regulatory authorities with sufficient leeway, relaxing specific legal and regulatory requirements for the duration of the sandbox."

"**Under the Digital Europe Programme, the Commission envisages making available around EUR 1.5 billion to establish world-leading testing and experimentation sites for AI-powered products and services throughout Europe.** These test sites will be identified and developed in close collaboration with Member States in 2019, who will provide a mapping of existing national test sites and will cover the whole AI supply chain from components (neuromorphic computing and quantum

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[1] https://ec.europa.eu/newsroom/dae/document.cfm?doc_id=56017

[2] A Reference Testing and Experimentation Facility is a technology infrastructure that has specific expertise and experience of testing mature technology in a given sector, under real or close to real conditions (smart hospital, clean rooms, smart city, experimental farm, corridor for connected and automated driving, etc.).

technologies) up to integrated applications in areas like health, mobility, energy, security, safety and industrial production.

Member States will be encouraged to match the investments in the Digital Europe Programme so that an overall investment volume of EUR 3 billion is available. The use of other sources of funding, such as the European Regional Development Fund, will also be encouraged."

2.   DIGITAL EUROPE PROGRAMME

The legal text of the Digital Europe Programme[3] states the following:

"Co-investment with Member States in world class reference sites for experimentation and testing in real setting focusing on the applications of AI in essential sectors such as health, earth/environment monitoring, transport and mobility, security, manufacturing or finance, as well as in other areas of public interest. The sites should be open to all actors across Europe and connected to the Network of Digital Innovation Hubs. They should be equipped with or connected to large computing and data handling facilities as well as latest AI technologies including emerging areas inter alia neuromorphic computing, deep learning and robotics.

3.   DRAFT ORIENTATIONS

The concept is further developed in the Draft Orientations[4] for the preparation of the work programme(s) 2021-2022 of the Digital Europe Programme:

"[…] The first two years of the programme will focus on developing an infrastructure which offers businesses and the public sector access to AI tools and components and data resources, as well as reference testing and experimentation facilities in some prioritised application sectors."

"Actions will focus on […] developing world-class large-scale reference Testing and Experimentation Facilities (TEF) for AI hardware, software, components, systems and solutions, and underlying resources (data, computing, cloud) in a number of sectors"

"Developing Large Testing and Experimentation Facilities to provide a common, highly specialised resource to be shared at European level and foster the deployment of trustworthy AI in the following areas: 1) a common European platform to design and manufacture edge intelligence components and systems based on neuromorphic and quantum technologies; 2) reference sites for applications in essential sectors such as health, agri-food, manufacturing, smart cities and smart mobility (including environment and climate perspective)."

The Draft Orientations document stresses the links that will be established with the initiative to **establish EU-wide common data spaces**.

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[3] Partial agreement between EU Parliament and Council: https://data.consilium.europa.eu/doc/document/ST-7058-2019-INIT/en/pdf

[4] http://ec.europa.eu/newsroom/dae/document.cfm?doc_id=61102