

# **Human-Centered Adoption of LLMs in Industry and Society: Challenges, Opportunities, and Systemic Implications**

**Abstract**—Large Language Models (LLMs) are rapidly transforming industrial and societal processes by enabling new forms of cognitive automation and human-AI collaboration. While technical capabilities are advancing quickly, systematic and human-centered approaches to their adoption remain underdeveloped. This paper proposes a structured, human-centered research framework for analyzing LLM adoption across domains. It identifies key dimensions that must be addressed to enable comparability, generalization, and cumulative knowledge building. The framework supports both workshop discussions and extended research contributions, with the goal of advancing a unified understanding of challenges, opportunities, and systemic implications of LLM integration.

This workshop is funded by European Union NextGenerationEU under the Juraj Dobrila University of Pula institutional research project EQUYSIS, number IIP\_UNIPU\_010162.



**Funded by  
the European Union**  
NextGenerationEU