AIDOaRt

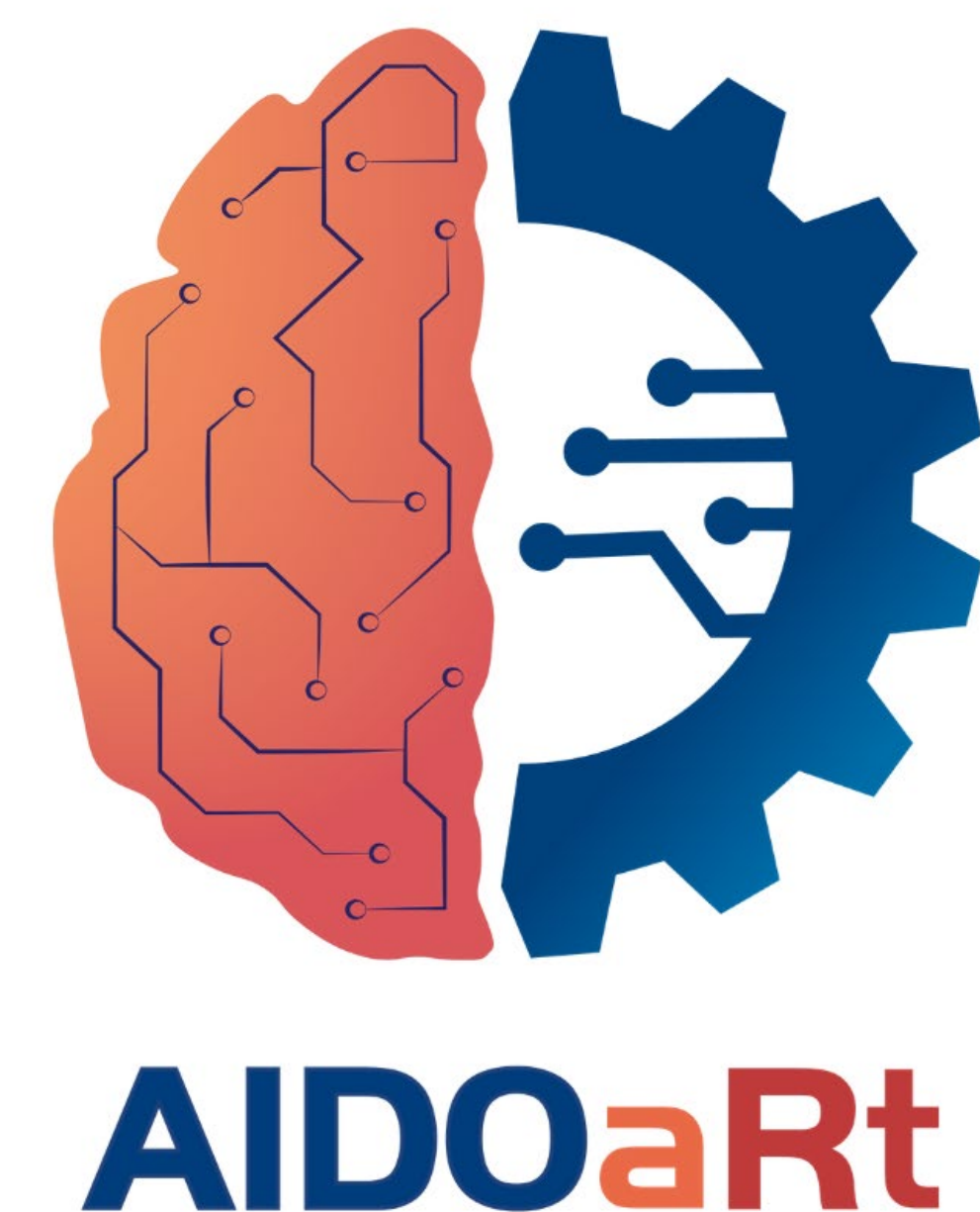## AI-augmented Automation for DevOps, a model-based framework for continuous development in Cyber-Physical Systems

Challenges and objectives

AIDOaRt is a 3.5-year-long H2020-ECSEL European project involving 32 organizations, grouped in clusters from 7 different countries, focusing on AI-augmented automation supporting modelling, coding, testing, monitoring and continuous development in Cyber-Physical Systems (CPS).

Technical goals

- Providing a model-based framework to support the CPS development process by introducing AI-augmented automation.
- Enhancing the DevOps toolchain by employing AI and Machine Learning (ML) techniques in multiple aspects of the system development process (such as modeling, coding, testing, and monitoring).
- Supporting the monitoring of runtime data (such as logs, events, and metrics), software data, and traceability (Observe). Analyzing both data of historical and real-time data (Analyze) and the automation of functionality (Automate).
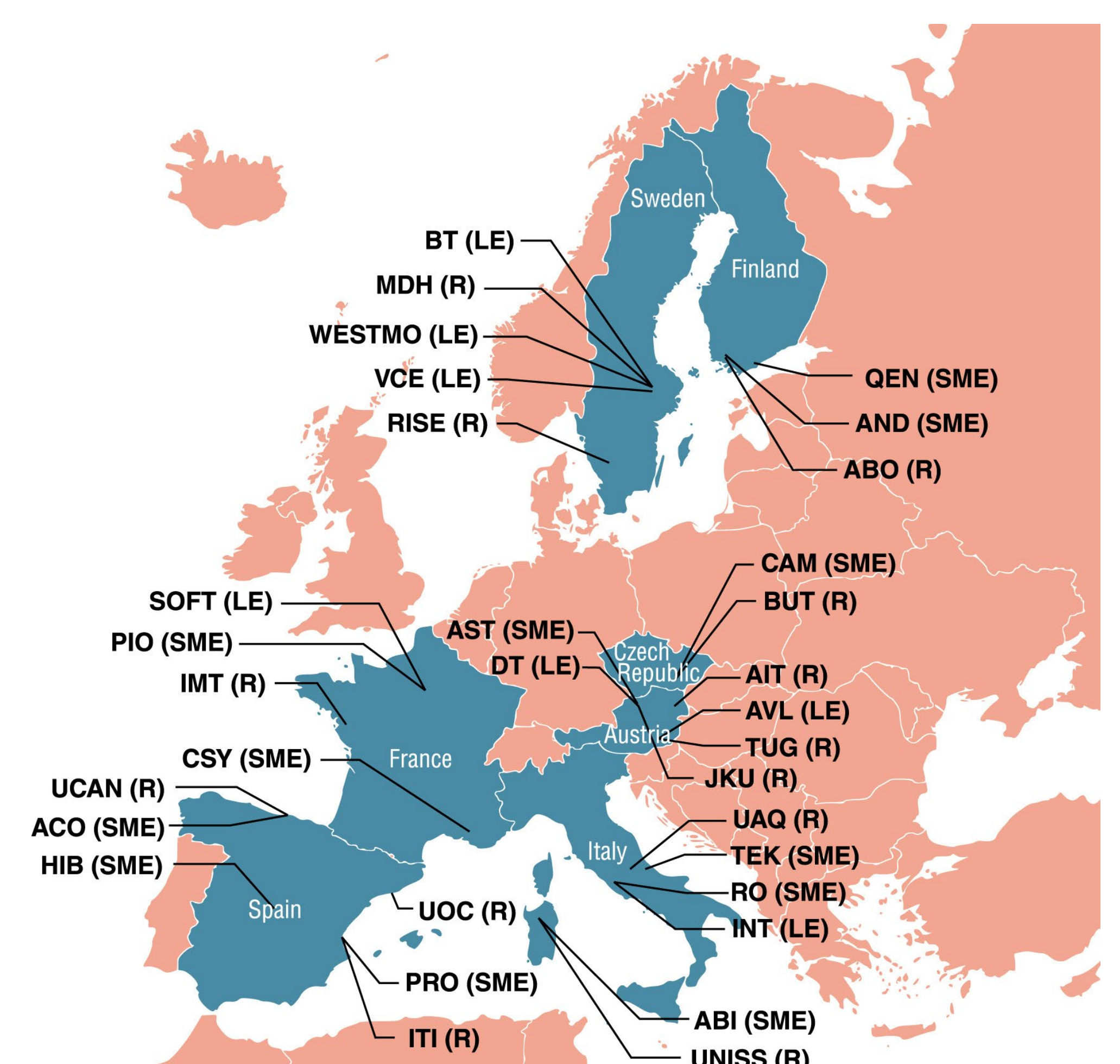
Expected impact

AIDOaRt proposes enhancing the engineering process with AI-augmented methods (AIOps), integrating DevOps and Model-Driven Engineering (MDE) principles, and observing and analyzing collected data from both runtime and design time artifacts in rapid CSE cycles. This project expects industrial uptake of AIDOaRt technologies on the development of complex systems that scales up to real systems demand with relevance for all critical applications. The impact is not limited to the following:

- *AIDOaRt Framework and 52 tools*
- *5 AIDOaRt Hackathons enhanced collaboration*
- *AIDOaRt demonstrators validation in 10 Use cases*
- *96 Publications, including 21 journal papers*
- *19 theses to Phd. level*
- *Partners actively participated in more than 60 events*
- *3 participation in EU profile exhibitions*

Contact details:

Name: Gunnar Widforss (Coordinator)

Organisation: Mälardalen University

Email: gunnar.widforss@mdu.se

Telephone: +46 70 6922 763

AIDOaRt Consortium

BT (LE)
MDH (R)
WESTMO (LE)
VCE (LE)
RISE (R)
QEN (SME)
AND (SME)
ABO (R)
CAM (SME)
BUT (R)
SOFT (LE)
PIO (SME)
AST (SME)
DT (LE)
IMT (R)
AIT (R)
AVL (LE)
TUG (R)
JKU (R)
CSY (SME)
UCAN (R)
ACO (SME)
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TEK (SME)
RO (SME)
INT (LE)
UOC (R)
PRO (SME)
ABI (SME)
ITI (R)
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More about the project

Presentation

Newsletter

Tool catalog