S X AIPI

**An innovative
self-improving
toolset
of trustworthy
AI technologies**

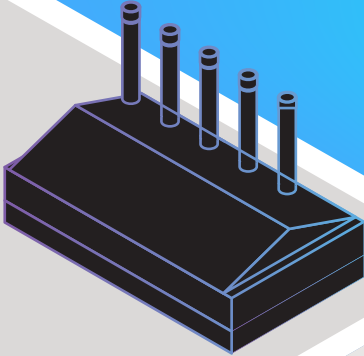**14**
Partners

6
Countries

5,3M€
Budget
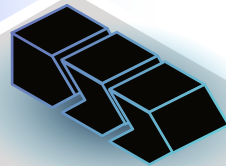
36
Months

Value Chain

Process Lifecycle

Product Lifecycle

Trustworthy self-X AI Applications

for Agile and Sustainable Process Industry

The Project

s-X-AIPI Horizon Project will research, develop and test an **innovative toolset of custom trustworthy self-X AI technologies for the European Process Industry.** These applications will minimize human involvement in the loop and exhibit self-improving abilities.

Human in the loop
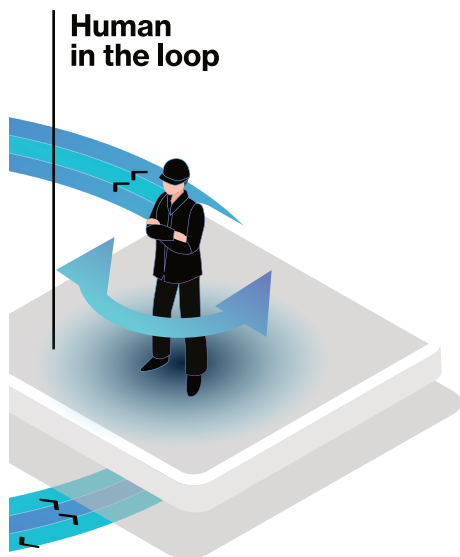
Self-X AI applications combine new intelligent data pipelines with an autonomic Manager to develop self-improving AI systems.

This toolset aims to fully **accelerate the digital transformation** of process industries towards a sustainable and more agile future, minimise impact from internal and external influences, and facilitate the human in the loop roles.

Toolset

Use Cases

Demonstration at four representative industrial use cases will generate a **showcase portfolio of trustworthy AI technologies** (data sets, AI models and applications) integrated into an innovative toolset available for industry and research.

Steel sidenor

SIDENOR steel use case focuses on the optimised use of scrap to produce high-quality steel products, avoid downstream surface quality problems and reduce process energy intensity.

Asphalt EIFFAGE

EIFFAGE asphalt use case focuses on circularity of the value chain, the quality control of feedstock and the final product and the overall sustainability of the process.
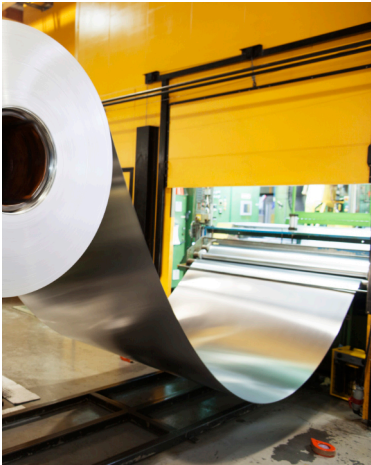
Pharmaceutical rcpe

RCPE pharmaceutical use case focuses on the prediction of optimal settings in manufacturing of chemicals and active pharmaceutical ingredients involving solid/liquid suspensions, through ML based control strategy and report to human-in-the-loop.

Aluminium Idalsa

IDALSA aluminium use case focuses on the optimisation of recycling processes from scrap, decreased melting power on time, metal yield optimisation, and liquid aluminium quality improvement resulting in a decreased rate of downstream quality rejections.

Consortium

The Consortium is composed by 14 partners across 6 European countries including SMEs, large industries, leading research institutions and standardization bodies.

CARTIF

EIFFAGE

Ssidenor

MSi grupo

aimen
TECHNOLOGY CENTRE

UNE
Normalización
Española

EUSER

Idalsa

POLITECNICO
MILANO 1863

eng

Productivity increase

↑5-30%

Scrap reduction

↓20%

Cycle time reduction

↓4%

BFI

rc pe

Nissatech innovation centre
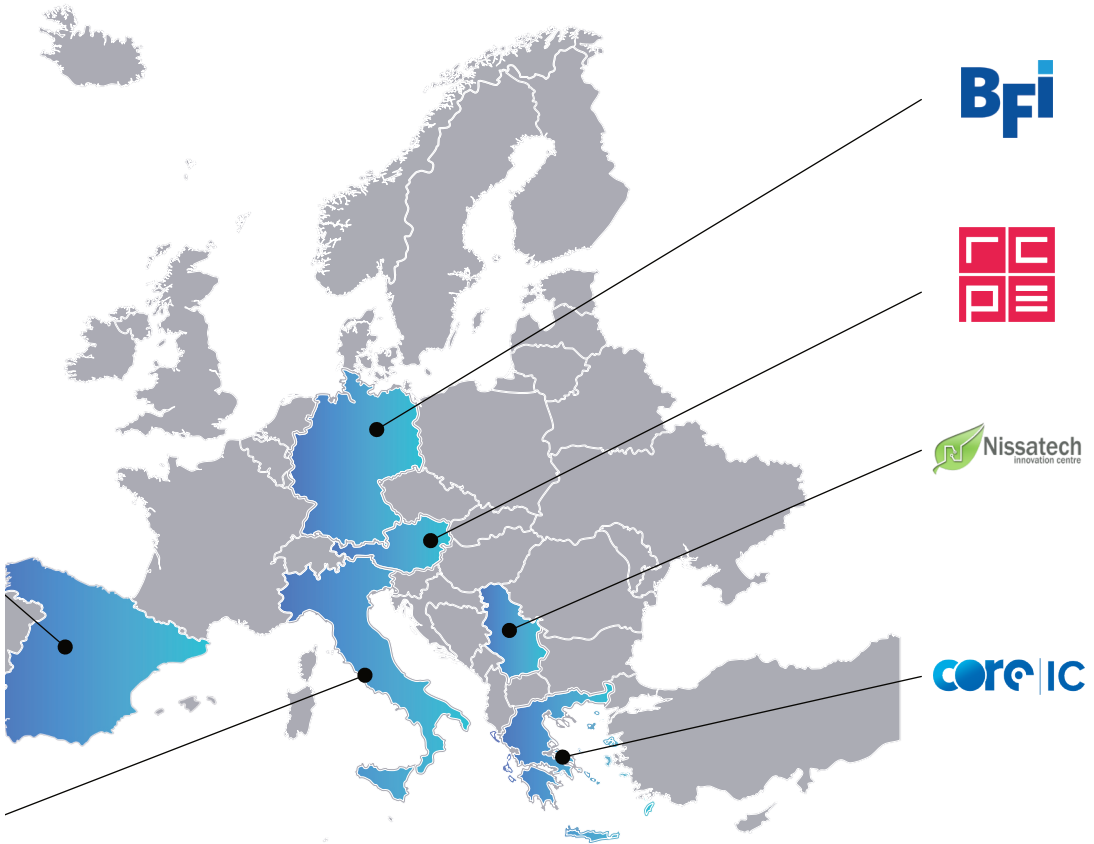
core|IC

CO2 reduction

↓**0.8-35kt/y**

Resource Reduction

↓**2-15%**

Recycling target

30-75%

CARTIF

Project
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