



CPS Engineering Labs

A Network of Design Centres

**Expediting and accelerating the realisation of
trustworthy CPS**

CPS Engineering Labs – at a glance

- Objective:
Helping businesses develop trustworthy CPS
- 9 partners in 5 European countries
- EU contribution: 7.4 M€
- 3-year project: Feb. 2015 – Jan. 2018



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Network of Design Centres

Centre Sweden



Centre UK



Centre Germany North



Centre German South



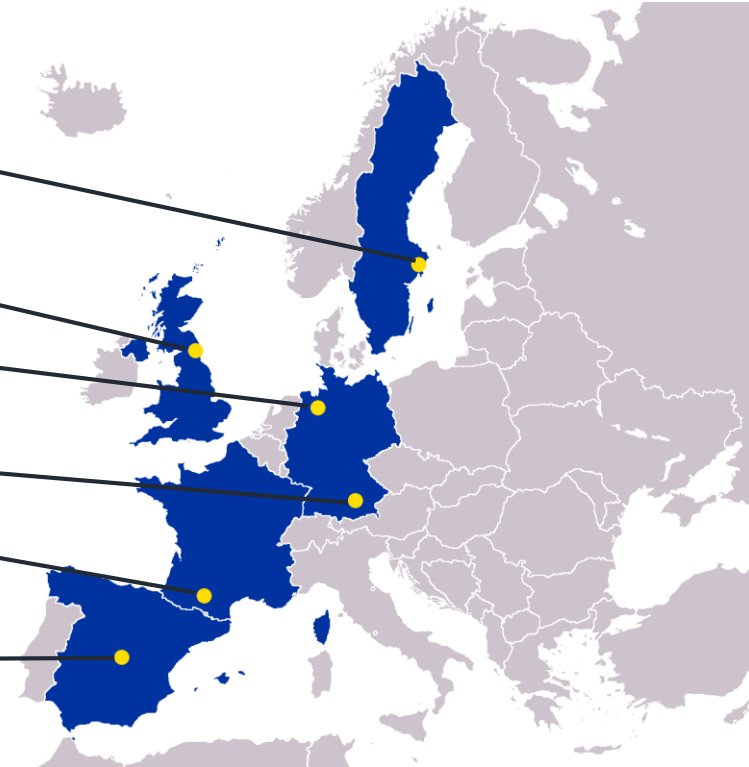
Centre France



Centre Spain



indra



CPS Engineering Labs Mission

Expediting and accelerating the realisation of trustworthy CPS

Concept:

- Businesses evaluate CPS design technologies in application development projects

Goals:

- Provide support for European companies to advance their product portfolio, and to move into new markets and new application domains
- Stimulate uptake of advanced ICT technologies amongst Europe's SMEs
- Connect businesses with top research centres
 - Ensure research is grounded in industrial needs
 - Businesses get support

Platforms and technologies

Specialisms vary across Design Centres, e.g.:

- Internet of Things (SOFIA2, IoT Connectivity Platform, MindCPS IoT)
- Framework for Distributed Industrial Automation & Control (4DIAC, IEC 61499)
- eMaritime Integrated Reference Platform
- Data integration for engineering tool chains (AIDE)
- Model-based safety analysis and Safety Monitoring Framework
- Model-based collaborative engineering (Overture, Crescendo)



We provide funding & support

Open competitive calls for *fast-track, focussed industrial experiments* with specific innovation objectives

- Three rounds of calls over three years

Process:

Call

- Design Centres offer topics based on their supported platforms

Submission

- Businesses design an industrial experiment they want to carry out, and submit it to us

Evaluation

- Proposals are evaluated by independent, external CPS experts

Execution

- Selected experiments are executed by businesses in cooperation with a Design Centre

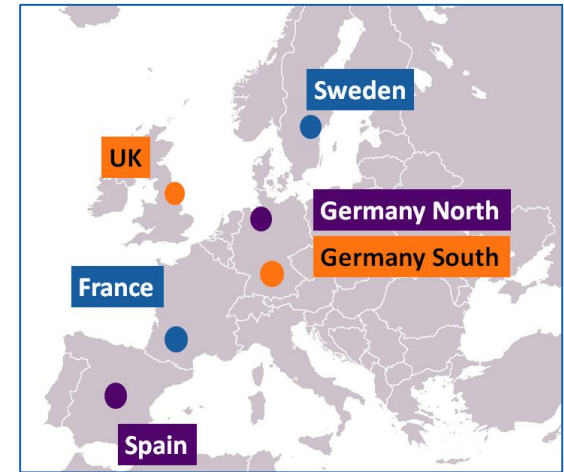
Selected experiments will receive funding up to €150,000

Call 3 will be launched soon: April 27

Industrial experiments

Experiment setup:

- Should be designed to trial specific technologies offered by the Design Centres
- Should have clear commercial benefit & impact
- Should be designed to validate results where possible
- For existing technologies, should demonstrate improvements to maturity (TRL) of the technology



All experiments partnered with their chosen Design Centre

Design Centre provides

- Training in selected technologies and skills
- Technical support if needed
- Some collaborative effort

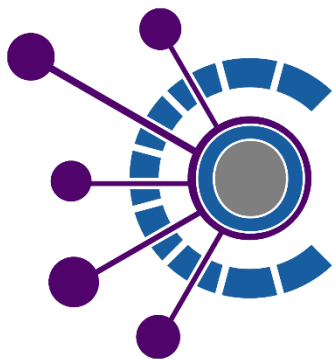
Examples of experiments

14 industrial experiments have been selected in previous Open Calls

Topics include developing demonstrators for

- Safe deployment of a mobile robot in an airfield runway for lighting maintenance
- Flexible development of an industrial control system for energy load management in a biogas plant using IEC 61499
- Decentralised architecture for traffic management systems
- Testing framework for efficient CPS tool chain integration
- Integration of co-simulation methods into a real-time platform for automotive CPS
- Augmenting legacy machine tools to cloud manufacturing environment
- Shore-based voyage planning using the Maritime Architecture Framework
- Improving Water Efficiency and Safety in Living Areas

See our webpage for more information



CPSE Labs

www.cpse-labs.eu

Contact us:

We can be reached by email at:
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Launch of next
Open Call:
27 April 2016

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