Trans-Atlantic Modelling and Simulation For Cyber-Physical Systems

Fact Sheet

Project Information

TAMS4CPS

Grant agreement ID: 644821

Project website

DOI
10.3030/644821

Project closed

EC signature date
26 November 2014

Start date
1 February 2015

End date
31 January 2017

Funded under
INDUSTRIAL LEADERSHIP - Leadership in enabling and industrial technologies - Information and Communication Technologies (ICT)

Total cost
€ 399 650,00

EU contribution
€ 399 649,75

Coordinated by
LOUGHBOROUGH UNIVERSITY
United Kingdom

Objective

Smart systems, in which sophisticated software/hardware is embedded in physical systems are part of everyday life. From simple products with embedded decision making software to massive systems in which hundreds of systems, each with hundreds or thousands of embedded processors, interoperate, the growth of cyber-physical systems (CPS) is likely to accelerate. For Europe to benefit from this expansion, while avoiding the pitfalls that such complexity creates, there must be advances in the modelling and simulation (M&S) of CPS. Collaborative research with

the US will be an opportunity to advance European M&S capabilities for CPS. The overall aim of TAMS4CPS is to lay the foundations for concrete EU-US collaboration in modelling and simulation for cyber-physical systems. To achieve this, Loughborough and Newcastle Universities (M&S) will work with Steinbeis Innovation (road mapping) and leading researchers in the field at top US universities to create:
- A strategic research and collaboration agenda, endorsed by researchers in EU and US
- A set of test cases for model developers to perform collaborative evaluation
- A state of the art web-based report to act as a baseline for collaborative research
Taking a consultative approach, we will engage industry and academic researchers and M&S users in workshops and web-based meetings to prioritise M&S research challenges and to create a constituency of future collaboration partners for pre-competitive research in the Artemis themes, of:
- Architectures principles and models for safe secure Cyber-Physical Systems
- Systems design, modelling and virtual engineering for Cyber-Physical Systems
- Autonomous adaptive and cooperative of Cyber-Physical Systems
- Computing platforms and energy management for Cyber-Physical Systems
To which is added the exploitation and enabling theme of:
- Integration of socio/legal/governance models within modelling frameworks
Thus, this project directly addresses European priorities in CPS.

Fields of science (EuroSciVoc)

natural sciences > computer and information sciences > **software**

social sciences > sociology > **governance**

medical and health sciences > medical biotechnology > tissue engineering > **artificial pancreas**

natural sciences > computer and information sciences > artificial intelligence > **machine learning**

social sciences > psychology > **ergonomics**

Programme(s)

H2020-EU.2.1.1. - INDUSTRIAL LEADERSHIP - Leadership in enabling and industrial technologies - Information and Communication Technologies (ICT) MAIN PROGRAMME

H2020-EU.2.1.1.1. - A new generation of components and systems: Engineering of advanced embedded and energy and resource efficient components and systems

Topic(s)

ICT-01-2014 - Smart Cyber-Physical Systems

Call for proposal

H2020-ICT-2014

See other projects for this call

Sub call

H2020-ICT-2014-1

Funding Scheme

CSA - Coordination and support action

Coordinator

LOUGHBOROUGH UNIVERSITY

Net EU contribution

€ 158 618,75

Total cost

€ 158 618,75

Address

ASHBY ROAD
LE11 3TU Loughborough
United Kingdom

Region

East Midlands (England) > Leicestershire, Rutland and Northamptonshire > Leicestershire CC and Rutland

Activity type

Higher or Secondary Education Establishments

Links

Contact the organisation Website
Participation in EU R&I programmes
HORIZON collaboration network

Participants (3)

STEINBEIS INNOVATION GGMBH

Germany

Net EU contribution

€ 55 745,31

Address

ADORNOSTRASSE 8
70599 Stuttgart

Region

Baden-Württemberg > Stuttgart > Stuttgart, Stadtkreis

Activity type

Research Organisations

Links

Contact the organisation Website
Participation in EU R&I programmes
HORIZON collaboration network

Total cost

€ 55 745,31

UNIVERSITY OF NEWCASTLE UPON TYNE

United Kingdom

Net EU contribution

€ 127 625,00

Address

KINGS GATE
NE1 7RU Newcastle Upon Tyne

Region

North East (England) > Northumberland and Tyne and Wear > Tyneside

Activity type

Higher or Secondary Education Establishments

Links

Contact the organisation Website
Participation in EU R&I programmes

HORIZON collaboration network

Total cost

€ 127 625,00

STEINBEIS 2I GMBH

Germany

Net EU contribution

€ 57 660,69

Address

LEUSCHNERSTRASSE 43
70176 Stuttgart

Region

Baden-Württemberg > Stuttgart > Stuttgart, Stadtkreis

Activity type

Private for-profit entities (excluding Higher or Secondary Education Establishments)

Links

Contact the organisation Website
Participation in EU R&I programmes
HORIZON collaboration network

Total cost

€ 57 660,94

Last update: 11 August 2022

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