FED 4SAE

WE OFFER A ONE-STOP-SHOP TO ACCELERATE CPS DEVELOPMENT, FUNDED BY THE EUROPEAN COMMISSION

Get involved – apply to our Open Call

FED4SAE

WHO WE ARE

PART OF THE SMART ANYTHING EVERYWHERE INITIATIVE

FED4SAE brings together

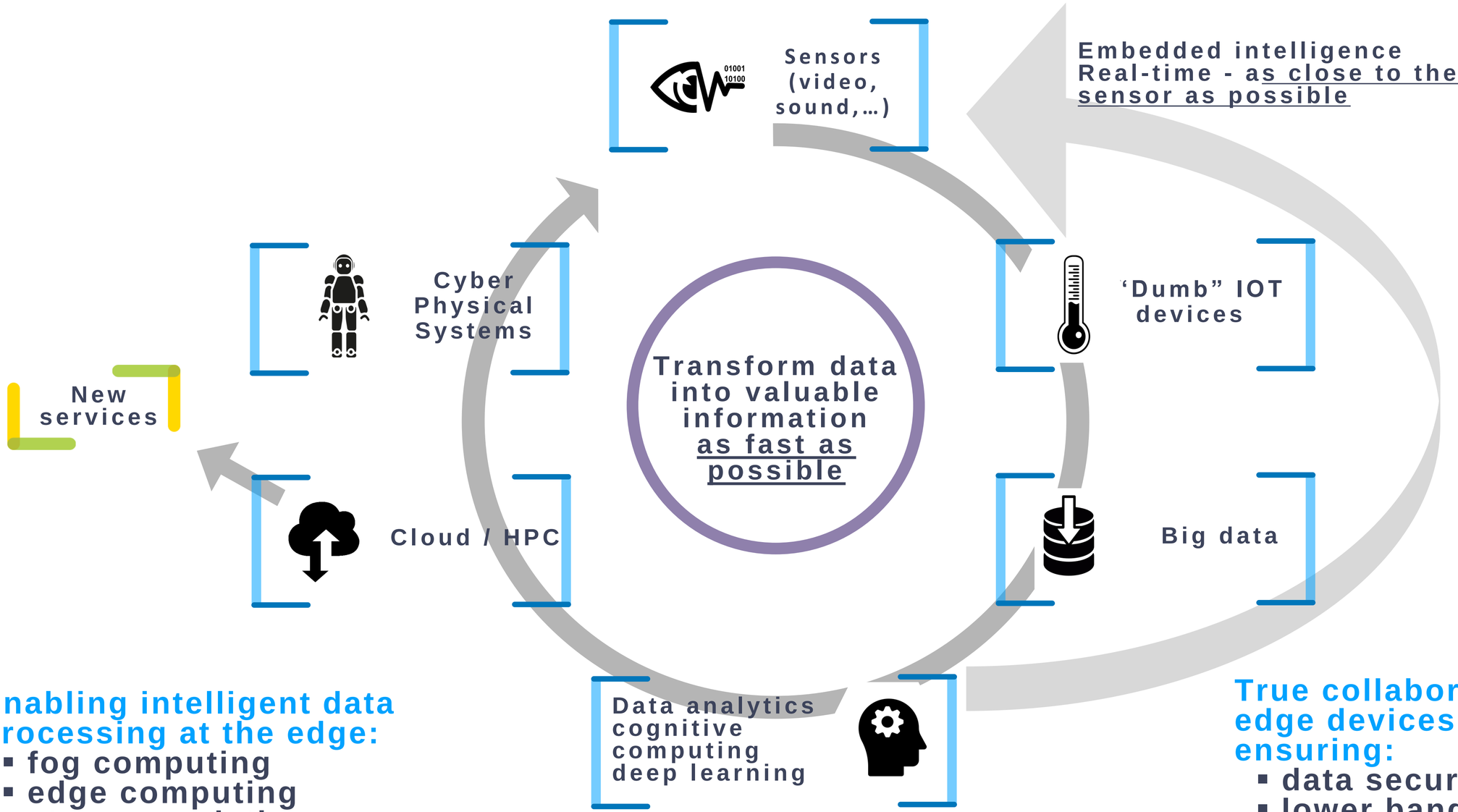
- Fourteen partners
- Ten countries
- Eight R&D centers
- Five industrial partners, and
- One SME

The project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement no. 761708.

THE RISE OF CYBER PHYSICAL SYSTEMS (CPS) …

…RESULTS FROM AN INCREASINGLY CONNECTED WORLD

…AND THE DEMAND OF EDGE INTELLIGENCE ENABLED WITH DEEP LEARNING



Enabling intelligent data processing at the edge:

- fog computing
- edge computing
- stream analytics
- fast data…

True collaboration between edge devices and the cloud ensuring:

- data security / privacy
- lower bandwidth
- better use of cloud

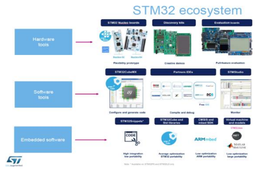
WE HELP ACCELERATE EUROPEAN CPS SOLUTIONS TO MARKET

WE PROVIDE

- Access to leading-edge CPS platforms, Advanced Technologies, and Testbeds from Industrials and R&D centers
- Technical coaching from domain experts
- Innovation Management support:
- Access to VC’s
- Access to potential users and suppliers across value chains throughout Europe
- Up to €60k in initial financial support,

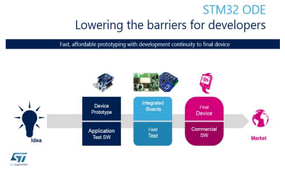
CHOOSE YOUR PLATFORM PARTNER- MANDATORY

STM32 BOARDS



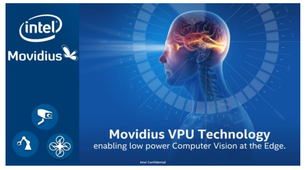
STM32 based boards with low power 32-bit MCU for small projects to entire platforms

ST WESU WEARABLE



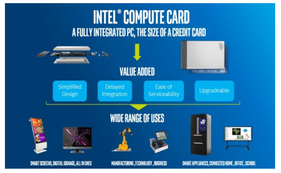
WESU thea reference design developed and optimized to implement the latest technologies in wearable and portable applications with iNEMO SIP sensors

NEURAL COMPUTE STICK



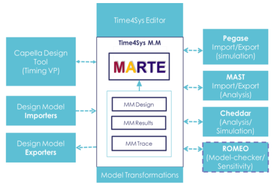
Movidius Neural Compute Stick delivers low power Computer Vision at the Edge

COMPUTE CARD



Compute Card is a full 64 bit computer platform the size of a credit card

TIME4SYS

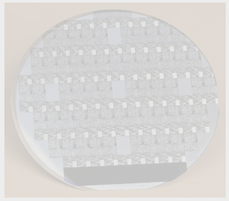


Timing Framework - System Modelling Framework for real-time embedded applications

IODP

Integrated and Open Development Platform for Automotive powertrain development

SI ARC



Silicon Architectural Study CPS applications using new technologies and devices

RANGE OF ADVANCED TECHNOLOGIES

SILICON IMPULSE
The one-stop-shop for ultra-low power expertise in integrated circuit design

LINC
IoT Device Management Middleware

SIGMA FUSION
Automotive Sensor Fusion platform

SENSINACT MIDDLEWARE
IOT Device Management Platform

GPS FREE LOCALIZATION
GPS free localization solver for any LoRa® / LTE-M / NB-IoT / WiFi / BT Network

VISION IN A PACKAGE
Vision in a Package / Intelligent Camera

HYPER VISION
Intelligent Camera System for Hyperspectral Imaging

CHEMICAL SENSING
Nanotechnology for chemical sensing

WISEDEEP
Robust low power wireless for safety-critical applications

WISEMAC
Peer to Peer low power medium access protocol for wireless communication

WISENET
Ultra Low Power Wireless Sensor Network

SOFT MEMS
Stretchable soft membranes that can be integrated on MEMS

ADV MFG & PACKAGE
Advanced Manufacturing and Packaging (additive manufacturing + microfabrication)

4DIAC
Infrastructure for distributed industrial process measurement and control

AIDE
Data Management Tools for engineering of Cyber-Physical Systems

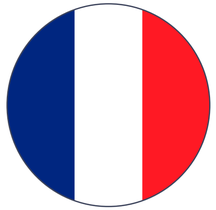
Π-FAB INFRASTRUCTURE
continuous silicon CMOS and silicon carbide process line

FIVE TESTBEDS

RELIABILITY

BME, Hungary

Harsh environment and systems integration reliability test environment



PTL

CEA, France

Smart Home, Health, and Transportation Testbeds

LPWAN

Digital Catapult, UK

London-wide testbed for Low Power Wide Area Network based CPS solution

RCV

KTH, Sweden

Research Concept Vehicle - An Open Platform for Sustainable Transportation R&D

SMART CITY

Unican, Spain

CPS Massive urban infrastructure in technology and service assessment

AREAS OF APPLICATION AND MARKETS

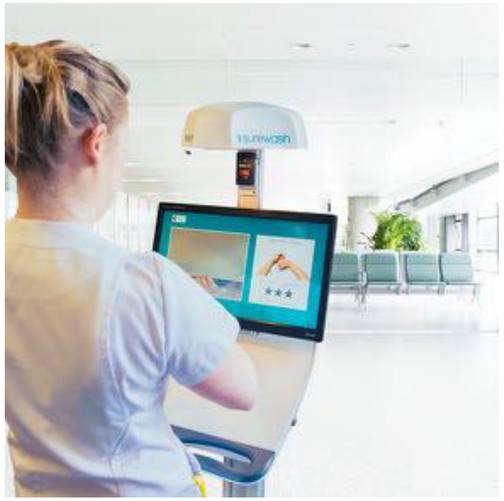
Each Application Experiment must focus on at least one of the following areas

- Software-intensive Application Experiment
- System integration Application Experiment
- CPS and Embedded System with innovative component Application Experiment

EXAMPLE OF A RUNNING PROJECT

TO DEVELOP A SMART SINK THAT IMPROVES HAND HYGIENE IN HEALTHCARE AND FOOD PREPARATION:

- ***TO MEASURE THE COMPLETENESS OF HAND WASHING BY HEALTHCARE AND KITCHEN STAFF & TO WARN THEM IF THEY MISS ANY PART OF THEIR HANDS.***
- ***IF A PART IS MISSED , TO PROVIDE INSTRUCTIONS ON HOW TO IMPROVE THEIR TECHNIQUE***



surewash

DE LA RECHERCHE À L'INDUSTRIE
cea

intel

BLUMORPHO
Create value with all forms of innovation

THE CHALLENGE IS TO **COMBAT THE VALLEY OF DEATH**, WHEN COMPANIES **STRUGGLE TO FINALISE THEIR PRODUCT DEVELOPMENT** WITH NO OR LOW REVENUE GENERATION AND LIMITED RESOURCES TO **REACH THE MARKET**

70%

FUNDING

To support R&D of EU SMEs and Mid-caps

18

MONTH MAX DURATION

Maximum duration for funded projects

3

OPEN CALLS

We will accept applications every six months

35

SELECTED

Proposals we will support in bringing CPS solutions to market

HOW TO APPLY

SUBMIT

Apply to our third call

Opens in early December- closes in early March.

From the FED4SAE website

https://fed4sae.eu/innovative-projects/open-calls/

You will receive feedback on your proposal within 7 weeks

The evaluation of Application Experiment proposals will be based on scores given according to four basic criteria:

- **Excellence**,
- **Impact**,
- **Quality**
- **Business Case** of the AE.

The technical aspects (Impact, Quality and Excellence) will be evaluated by

- 3 independent external experts from outside the consortium
- By an internal evaluation committee – consisting of our consortium members

The business case of your proposal will be assessed by our consortium member Blumorpho.

Consortium members that are directly involved in your proposal will not evaluate it to avoid potential conflict of interests.

BEST PRACTICE FOR A SUCCESSFUL PROPOSAL

Did you Contact a Networking Partner – Propose your idea, product, platforms. etc.

Get in contact with our Platform and Advanced Platform Partners to check the feasibility of your experiment

Contact a Innovation Management Partner

The top ten of the best proposals had contacts with the consortium before the application.

CONTACT INFORMATION FOR OUR PARTNERS

Our partners work in different roles and capacities in FED4SEA. To contact our partners directly please use the following contact information:

ISABELLE DOR or PIERRE-DAMIEN BERGER

isabelle.dor@cea.fr

ANTONIO LIONETTO (ITALY)

antonio.lionetto@st.com

MARCELLO COPPOLA (FRANCE)

marcello.coppola@st.com

MARIE BALDAUF-LENSCHEN

marie.baldauf-lenschen@digicatapult.org.uk

RÉGIS HAMELIN

hamelin@blumorpho.com

MARTA RENCZ

rencz@eet.bme.hu

ERIC ARMENGAUD

eric.armengaud@avl.com

MARKUS PFEFFER or MAXIMILIAN JUNG

markus.pfeffer@iisb.fraunhofer.de

maximilian.jung@iisb.fraunhofer.de

MARTIN TÖRNGREN

martint@kth.se

PHILIPPE BONNOT

philippe.bonnot@thalesgroup.com

JOHN FARSEROTU or BAHAA ELROUSTOM

John.FARSEROTU@csem.ch

bahaa.elroustom@csem.ch

LUIS MUÑOZ

luis@tlmat.unican.es

FINIAN ROGERS

finian.g.rogers@intel.com

HOLGER PFEIFER

pfeifer@fortiss.org

GET INVOLVED

APPLY TO OUR OPEN CALL

FIND OUT MORE

https://fed4sae.eu

SmartAnythingEverywhere

Horizon 2020 Programme