HUBCAP

Digital Innovation HUBs and Collaborative Platform for Cyber-Physical Systems

HUBCAP Newsletter

What is HUBCAP?

HUBCAP provides a one-stop-shop for SMEs to join the Cyber-Physical System (CPS) revolution. HUBCAP brings together seven Digital Innovation Hubs (DIHs) across Europe who provide expertise in Model-Based Design (MBD) and CPSs to SMEs. HUCAP is creating a new collaboration platform to enable SMEs to co-create, analyse and validate new CPS products in a virtual setting, by accessing CPS assets (models, tools, services) and experimenting with new solutions, de-risking investments in skills or resources.

HUBCAP offers SMEs the opportunity to access expertise and training, seek new investment and form new business links in MBD and CPS, facilitated through a €3.2million equity-free fund accessible through open calls. HUBCAP runs three types of call:

⇒ Call 1 PULL invites digital technology providers to join the HUBCAP ecosystem and integrate existing CPS and MBD tools in the platform.

⇒ Call 2 EXPERIMENT helps SMEs towards the adoption or improvement of CPS products and services by applying assets from the HUBCAP platform in consortia of two SMEs working together.

⇒ Call 3 INNOVATE funds the deployment of new products and demonstrations of highly innovative collaborations using the platform for consortia of 2–3 SMEs.

To keep up to date visit http://hubcap.eu/ and follow us on Twitter @hubcap_eu and LinkedIn!

In this issue:

CALL #2.1 EXPERIMENT
Join us in the Cyber-Physical Systems revolution!

APPLY NOW

Call #2.1 EXPERIMENT now open!

💲 Up to 75,000€ in support

👨‍🔧 Free services and support

🕐 4-6 months duration

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Call #2.1 Now Open!

The first iteration of our Open Call #2 EXPERIMENT is now open! Are you a European SME looking to experiment with MBD tools for CPSs? Call #2.1 offers SMEs in a consortium of two, funding of €30 000 to €75 000 to support with the integration of HUBCAP assets and creating new MBD solutions over a duration of 4-6 months. Call #2.1 will accept applications until Wednesday 4 March 2021 17h CEST Brussels time. See our website for more details!
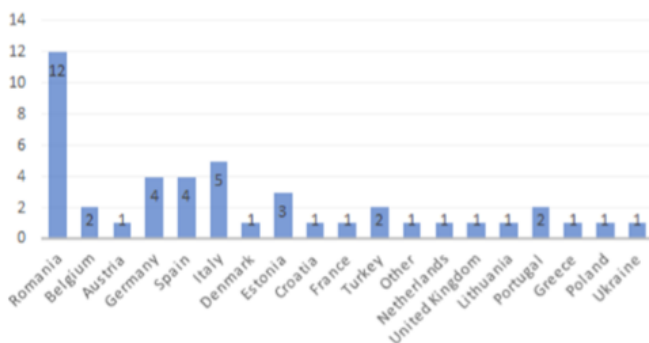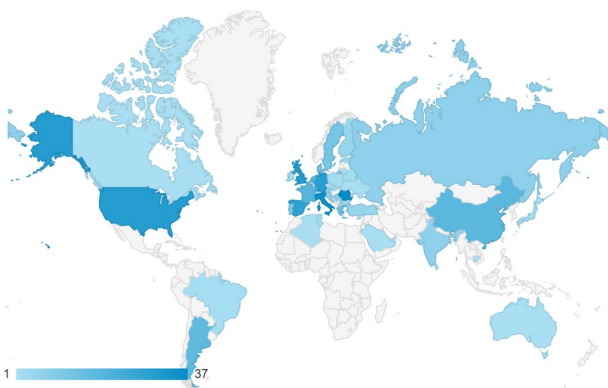
Call #1.1 Success

HUBCAP's first **PULL** call #1.1 - which accepted applications from May — June 2020 - enjoyed considerable success with 45 applications. As a result 20+ technology providers were selected and will be supported to make tools, models and other assets available to developers on the new platform, due for release later this year.

APPLICANTS PER COUNTRY

Number of applicants to Call #1.1 PULL by country.

Applications were submitted from all over Europe with domains including safety critical systems, transport, energy, and manufacturing. With many tool providers unsure if they work with CPSs, HUBCAP provides consultation and further help with applications to the open calls.

Website traffic during Call #1.1 PULL worldwide.

Although targeted at European SMEs, the HUBCAP website receives frequent global traffic (highlighted above).

Call #1.1 SME Highlight

With a catalogue of 20+ assets, the HUBCAP platform includes tools, models and assets covering a variety of domains such as automotive, aviation, space, smart cities, robotics and many more! (See highlights below!)

Developair

Developair offers tools for verification of requirements and automatic test generation, enabling the optimization of the software development life cycle. These tools are provided in a SaaS (Software as a Service) format and oriented primarily towards companies developing intelligent systems in the transport, energy, aerospace, health or manufacturing sectors.

Asvin

IoT vendors and operators can organize and monitor the software

lifecycles of IoT devices during operation via asvin.io cloud solution. Track Software from certification, deployment and distribution towards operation on devices. Secure and resilient update distribution as a service for IoT Devices at the Edge (e.g. industrial Sensors, Nodes, Gateways). Providing intelligence thread landscape reports for IoT Device vendors and operators during device lifecycles: e.g. risk of unpatched and unsecure devices deployed.

Clearsy

The CLEARSY Safety Platform is aimed at easing the development and the deployment of safety critical applications, up to SIL4. It relies on the smart integration of formal methods (including mathematical proof), redundant code generation and compilation, and a hardware platform that ensures a safe execution of the software. The CSSP is made of an integrated software development environment (IDE) and a hardware platform that natively integrates safety principles.

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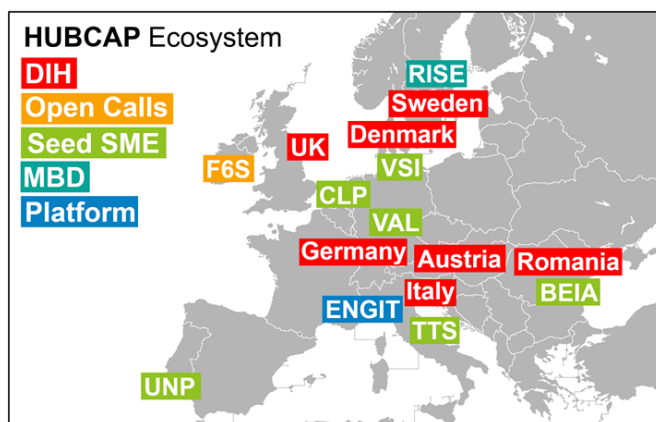*pgl@eng.au.dk*

http://hubcap.eu/

DIHs Overview

Our network of Digital Innovation Hubs (DIHs) gives SMEs an easy entry route to MBD for CPSs. The network offers a comprehensive set of digital innovation services, including supporting businesses to experiment, find investments and business opportunities, and access skills and training.

The HUBCAP DIH network consists of 7 HUBs in different countries across Europe, each specializing in their own field of CPS and MBD:

HUBCAP Ecosystem

DIH
Open Calls
Seed SME
MBD
Platform

RISE
Sweden
Denmark
UK
F6S
VSI
CLP
VAL
Germany
Austria
Romania
Italy
BEIA
ENGIT
TTS
UNP

- **Austria**, represented by the Virtual Vehicle Research Center GmbH

- **Denmark**, represented by the project coordinator Aarhus University

- **Germany,** led by fortiss

- **Sweden** operated by KTH

- **Italy** represented by both Politecnico di Milano and FBK

- **Romania** hosted by Lucian Blaga University of Sibiu

- **United Kingdom** led by Newcastle University

Platform

The HUBCAP Platform is an open, cloud-based innovation portal that will enable businesses to contribute and access digital assets needed to undertake MBD for building CPS solutions on the scale required for SMEs. Assets include both models and services, and they will be made available to allow businesses to manage their investment in MBD technology and to promote experimentation. With the HUBCAP Platform we can upgrade the capacity of SMEs to leverage MBD technology in CPS design.

The platform is based on the DIHIWARE open source solution, developed by ENGINEERING within the MIDIH H2020 EU project and currently in use in several communities in Europe. It offers a complete collaboration environment, inspired by Enterprise Social Software principles. It supports both "Access to" and "Collaborate with" services.

Knowledge-driven services next to a Catalogues Management System, harmonized with the collaboration and innovation side of the platform, create a virtual environment where providers and consumers are not just matching assets and needs, but are working to boost innovations.

The platform aims to lower barriers for SMEs to realize the potential of growing autonomy in CPS by making advanced MBD technology more accessible and also providing useful training on the matter.

The most innovative sub-system in the platform is the HUBCAP Sandboxing Middleware that enables the evaluation of CPS Tools and Models in a collaborative and flexible dynamic environment. It is designed to run each sandbox in an isolated and safe way, protecting the IPRs of the entities running in each sandbox. It is also capable of provisioning of ready-to-use repositories for both MBD Tools and Models.

The platform will be web-based, removing the need to install any dedicated client or affecting the end-user's system.

Call #1 PULL

Attracts and engages individual SMEs to join and to integrate existing CPS and MBD tools in the HUBCAP platform. To enlarge the HUBCAP ecosystem

Call #2 EXPERIMENT

Stimulates SMEs towards the adoption or improvement of CPS products & services by applying assets from the HUBCAP platform in a two-SME consortium.

Call #3 INNOVATE

Funds the deployment of new products and demonstrations of highly-innovative collaborations using the HUB-CAP platform.

Upcoming Events

Call #2.1 EXPERIMENT	04.12.2020

Call #2.1 is now open!

Call #2.1 Q&A Webinar	13.01.2021

Have questions or uncertainties regarding Call #2.1 and your application? Join us for a Q&A session and find out everything you need to know in order to apply successfully!

HUBCAP Platform Launch	03.02.2021

HUBCAP will be hosting a presentation for the launch of our collaborative platform including a full demo of all of its features. There will also be a matchmaking session for Call #2.1 EXPERIMENT and much more!

Upcoming Open Calls

Call #2.1 EXPERIMENT

December 2020 – March 2021

Call #1.3 PULL

April 2021 – May 2021

Call #3 INNOVATE

April 2021 – June 2022

Call #2.2 EXPERIMENT

November 2021 – January 2022

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