EUROPEAN COMMISSION – HORIZON 2020

FED4SAE

Accelerating European CPS Solutions to Market

Deliverable D6.2

WP6

Initial Dissemination Plan

Contract Number:	761708
Project Acronym:	FED4SAE
Project Title:	"Federated CPS Digital Innovation Hubs for the Smart Anything Everywhere Initiative"

Document Identifier:	FED4SAE_D6.2
Status:	Final version

Title of Document:	Initial Dissemination Plan
Dissemination Level:	Public

Author(s):	Digital Catapult
Reviewed by:	CEA-Leti, fortiss

Created on:	31 October 2017
Last update:	22 November 2017

Dissemination level: Public (PU)

THIS DOCUMENT WAS PRODUCED UNDER THE FED4SAE PROJECT (EC CONTRACT: 761708).

Page 1 of 51

Abstract

This public report summarises the FED4SAE strategy for dissemination, including the strategies for overall dissemination of the project results and dissemination of the FED4SAE's Digital Innovation Hubs service. It identifies target communities, objectives and actions to generate general awareness within business communities and other EU projects, initiatives and clusters, as well as strategies and tools for specific awareness creation of project objectives, offering, Open Calls and results.

Dissemination level: Public (PU)

THIS DOCUMENT WAS PRODUCED UNDER THE FED4SAE PROJECT (EC CONTRACT: 761708).

Page 2 of 51

Table of Contents

List of Figures

List of Tables

1. Introduction

Federating the development of innovative Cyber Physical Systems (CPS) solutions over regions in Europe, FED4SAE features pan-European multidisciplinary teams and experts with a set of complementary competencies covering the key enabling technologies and expertise required to design innovative CPS.

In alignment with the Smart Anything Everywhere initiative goals, FED4SAE aims to:

- Create a pan-European network of Digital Innovation Hubs (DIHs). These will enable both tech and non-tech innovative third parties (Start-ups, SMEs, midcaps) from any sector to build new products and services with "digital inside";
- Act as a European added-value one-stop shop to facilitate innovators-suppliers cross-border partnerships which will accelerate innovation in products and processes of European Third Parties by providing technical, industrial and innovation management expertise for increases in market shares and productivity;
- Support third parties to develop new CPS solutions by completing application experiments;
- Facilitate links between these innovators and investors associated with DIHs to reach out to further funding opportunities and accelerate commercialisation;
- Ensure the self-sustainability of the DIH network by developing cooperation with regional organizations and key stakeholders engaging public and/or private investment to fund further activities after project completion.

The related FED4SAE Digital Innovation Hubs will be connected across sectors and regions through Third parties, a set of partners rooted in their ecosystem of strong local industries (competence providers, advanced technology providers, industrial platforms), existing local (regional, national) innovation hubs and to public and private investors.

As shown in subsequent sections 2.4.7, the project will target SMEs from the early stage (TRL 3) up to the launch of the pre-series stage (TRL 6) along their product development cycle.

Selected Application Experiments (AE) will enable both tech and non-tech Third parties to translate a product and service ideas into a prototype. The prototype may also be used as a pre-series product. FED4SAE AEs will cover these first steps from idea to prototype while the selected Third party will be in charge of the product industrialization and commercialization. Third parties will therefore benefit from the assistance of FED4AE in establishing the right connections in the supply chain to manufacture, assemble, test and deliver their products to their customers.

To fine tune their strategy, the innovation management actions will help in business and market analysis and guidance from concept through market release, including assistance with funding beyond the initial cascade funding provided by the program.

1.2 Task objectives

The FED4SAE dissemination and exploitation activities are designed to maximize the industrial uptake, impact on targets, and outreach of the results, whilst ensuring the long-term sustainability and growth of major project outcomes. In relation to that, FED4SAE aims to engage and build a growing community of active players, from industry, SMEs, start-ups, Midcaps and the researcher community, to facilitate the creation of an integrated sustainable ecosystem of stakeholders active in the cyber-physical domain. To achieve this objective, the FED4SAE consortium will gradually and

systematically build up and mobilize a large industrial community committed to adopt and exploit the results in a sustainable way, during and beyond FED4SAE.

The placement of dissemination activities in a dedicated work package (WP6 "Creating cross-border CPS and Embedded System DIH, Dissemination and Exploitation") with participation of all project partners will ensure that the dissemination activities are carried out with the same level of commitment as technical work. A major objective for FED4SAE is to facilitate pan-European benefits from the project outputs and results. Thus, the activities will be closely monitored to ensure that application value chains as well as vertically integrated technology providers will benefit from the dissemination.

Dissemination will ensure that the next generation core CPS and Embedded System technologies and demonstrators from FED4SAE will be made available to the European Community. The goal is to increase the awareness on how innovative CPS and Embedded System technologies can be used to uplift quality and performance of products and services, i.e. making them smarter. The dissemination activities will also ensure the establishment of local partnerships and necessary co-investments in the regions, in order to strengthen the basis for the sustainability of federated DIHs that FED4SAE has established well beyond the lifetime of the project.
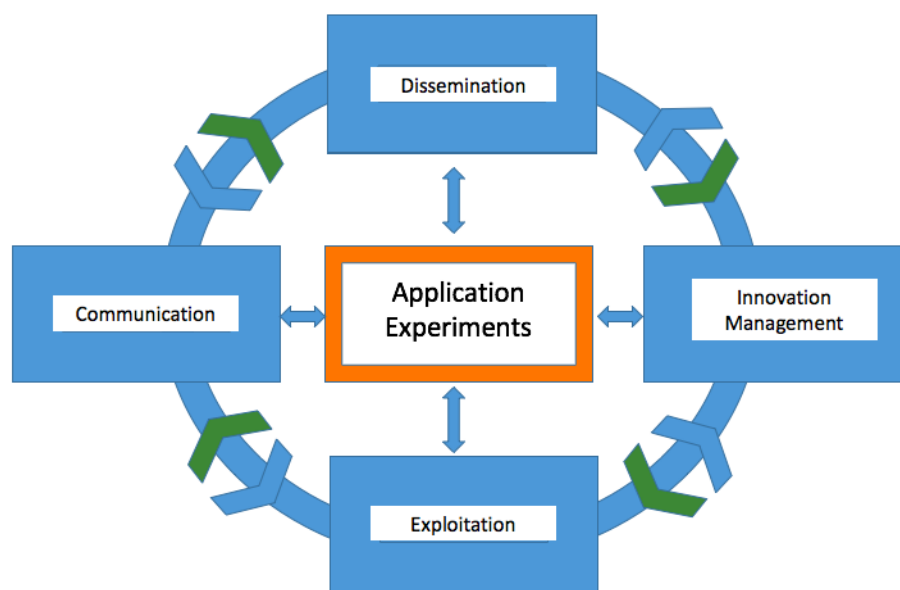
Figure 1: Relationship between Application Experiments and dissemination

A comprehensive dissemination methodology with a wide spectrum of measures has been planned, in order to reach out to all necessary European stakeholders. We first identify clearly our targets (who) for dissemination and identify the goals for our engagement activities with the identified stakeholders (why). We then present a set of well-tailored dissemination actions and channels (what/how), in order to support our dissemination objectives with the respective stakeholder groups. Here we differentiate between general dissemination instruments that target a variety of stakeholders more broadly and specific actions tailored to specific stakeholder. We finally provide an overview of the timing of the different dissemination actions. These are well aligned with the overall project plan and key project milestones to amplify the impact potential of the stakeholder engagement activities.

Dissemination level: Public (PU)

THIS DOCUMENT WAS PRODUCED UNDER THE FED4SAE PROJECT (EC CONTRACT: 761708).

Page 7 of 51

1.3 Purpose of this document

The aim of the dissemination plan is to prepare, as broadly as possible, the relevant communities (industry, researchers, academia, investors, innovation hubs, EU) to assess, accept, adopt and facilitate turning new knowledge generated through FED4SAE into a socio-economic viable and sustainable innovation.

Dissemination activities aim to help to support achievement of the project goals and impact. The dissemination strategy aims to generate:

- General awareness-creation for the business community and other European projects, initiatives, clusters, etc.
- Specific awareness-creation (SMEs, challenge owners/potential customers, financial institutions/policymakers for further funding)

More specifically, the Dissemination plan aims to provide a strategy for:

1. **Overall dissemination of the project's results:** Spread the project's results to the user communities on on-going efforts, identification of the most significant and relevant best practice and success stories for broad promotion within CPS and Embedded Systems, in related industrial groups, conferences and events and in related EC programmes. This aims at fostering a truly multi-disciplinary and multi-industrial ecosystem and contribute to demonstrate the effectiveness of the experiments and services exploiting network effects.

2. **Dissemination of the FED4SAE's DIH service**: to inform consumers and corporations in order to enhance the commercial potential of the FED4SAE' DIH services. The results achieved by executing the dissemination plan here described will inform and will be integrated in the exploitation strategy through an iterative process.

Dissemination level: Public (PU)

THIS DOCUMENT WAS PRODUCED UNDER THE FED4SAE PROJECT (EC CONTRACT: 761708).

Page 8 of 51

2 Overall Dissemination Strategy

In order to meet the objectives outlined in section 1.2, FED4SAE will undertake a media campaign targeting tech and non-tech start-ups, SMEs and midcaps in six major application domains: smart city, smart energy, smart health and wellbeing, smart manufacturing, smart mobility, smart transportation.

Dissemination activities include the use of both internal and external communication channels to promote the project and its results. FED4SAE will leverage consortium partners' existing dissemination channels and pass the experience in related areas gained in this project through their networks of business collaborators.

The aim of dissemination initiatives will be organised to attract a critical mass of stakeholders, with dissemination channels and technical depth will be customized to the various targeted audiences.

Dissemination materials have been designed according to different needs, and will be updated yearly to follow the evolution of the project.

Dissemination activities will be supported by specific tools and initiatives that will be exploited depending on the phase of the project and the targeted audience, outlined in the sections that follow.

Because of its very nature, CPS development requires quite a wide variety of competencies, and it is very rare to find SMEs possessing all the competencies in-house, therefore for the community engagement to continue after the project's end, we aim for the DIH to keep facilitating access to expertise, and position the network to become an efficient "CPS solution development collaboration and acceleration facilitator".

2.2 General image and outreach-building approach

FED4SAE's image and outreach-building approach has several objectives:

1. To disseminate generally understandable information about the project idea, approach, open calls, DIHs and results;
2. To interact with stakeholders, other researchers, local innovation hubs in the field, investors and the general public;
3. To push scientific and technological innovations for uptake by market actors, increase the accessibility.

An original visual identity, consistent across the website, print material, the slide deck and other online presence, has been created in order to create a memorable presence in relevant communities.

Additionally, all dissemination of results, including electronic, will acknowledge European Commission funding through the display the EC emblem, in addition to the project logo.

2.3 Target audiences, goals and actions

The FED4SAE consortium has identified seven groups of target audiences that would potentially benefit from the knowledge acquired during the project:

- **European Start-up, SME, and Midcap communities:** Companies (tech and non-tech) interested in understanding the potential of CPS and Embedded System technologies.

- **Design experiment stakeholders:** Owners of products and services, platform providers, inventors, and other partners of the FED4SAE ecosystem.
- **Regional innovation networks and accelerators:** Existing innovation hubs interested in expanding existing local support to European cross-border support.
- **Investor:** VC, Bank looking for innovative companies interested in embedding new innovative components in their products and services.
- **SAE community:** Participants in other projects in the call and CSAs.
- **Policy makers:** Entities in charge of funding programmes.
- **Broader CPS and Embedded System innovation community:** interested in the best practices for the advance of the EU CPS and Embedded System sector.

The consortium has identified specific dissemination goals for each target audience group, outlined in the table below:

Table 1: Dissemination goals and actions by target audience

Audience	Dissemination Goal	Actions
Tech and non-tech companies	Encourage companies to embed new innovative electronic components in their products and services Enable companies to engage with the right stakeholders to identify opportunities for CPS and Embedded System innovations	Presentation at events and mailing shots to seed general interest of CPS and Embedded System stakeholders in the project and open calls Communication of open calls through different online advertisement channels and regular webinars ahead of an open call Drop in clinic events for interested partners at DIHs to engage interested stakeholders into open calls and shape proposals Presentations of the project at relevant meet up groups and network events of DIHs partners in different regions Dissemination on the AE results
Newcomers	To inspire newcomers to embed new innovative electronic components in their products and services. To enable companies to engage with the right stakeholders to identify opportunities for CPS and Embedded System innovations Joint thematic workshops preferably during large events organized by the cluster organization gathering their members	Idem as for tech companies Channels may vary as they are not embedded in CPS and Embedded System eco-system (European Arts and science network, European Society for Maths and Arts, European Apparel and Textile Confederation, Wearable Europe, Wearable Conference Barcelona)
Regional innovation networks and accelerators	To promote Open Calls and inform about FED4SAE offerings To attract and engage start-ups, SMEs and midcaps in AEs Complement consortium expertise with additional skills and opportunities to support companies To help secure follow on funding for companies beyond To help regional authorities in their global strategy To ensure sustainability of created FED4SAE DIHs	Communication on the open calls Dissemination on the AEs results and gains for innovative companies Dissemination on the regional best practices to support innovative companies Use regional and national organisations communication vehicles to reach the regional SMEs

Dissemination level: Public (PU)

THIS DOCUMENT WAS PRODUCED UNDER THE FED4SAE PROJECT (EC CONTRACT: 761708).

Page 10 of 51

Audience	Dissemination Goal	Actions
Investors	To help secure follow on funding for innovative companies for market launch and scale-up To ensure sustainability of created FED4SAE DIHs	Communication on the open calls Dissemination on the AE results and gains for innovative companies Private meeting with innovative companies for further investment beyond FED4SAE AEs Dissemination on the DIHs organization and impact on CPS and Embedded System development acceleration
Policy-makers	To remove barriers for innovation To identify and analyse market failures To influence new funding opportunities / programmes for CPS and Embedded Systems	Dissemination on the AEs results and gains for innovative companies Dissemination on the DIHs organization and impact on CPS and Embedded System development acceleration
Smart Anything Everywhere community	To foster synergies by creating awareness and share emerging best practices across different SAE projects To avoid duplication of work and identify possibly joined activities in terms of communication and exploitation to better exploit available project resources	Cluster meetings Joint thematic workshops
Broader CPS and Embedded System innovation community	To share of best practices for the advance of the EU CPS and Embedded System sector To encourage participation of stakeholders to engage in the federated DIHs and grow the outreach of them into different local CPS and Embedded System community networks	Dissemination on the AE results and gains for innovative companies

2.4 Dissemination channels

FED4SAE will utilise three types of dissemination channels:

1. Dedicated project dissemination channels created for FED4SAE;
2. Existing consortium partner channels;
3. Existing channels of partners who are associated with FED4SAE and have expressed their support.

Ahead of project kick-off, FED4SAE has already obtained support from 23 European organisations as associated partners, including innovation platforms, clusters, Government agencies, innovation centres, incubators, science parks, and investors (venture-capital firms active the development of seed and early stage advanced technology companies) for which FED4SAE is relevant.

The following table summarizes the list of associated partners and their role in FED4SAE. All these well-established organisations have provided written confirmation of support for the FED4SAE project in the following way:

Table 2: List of associated partners

Associated Partner	Country	Role in the project			
		Address Third parties' interests and needs	Promotion/networking activities	Provide support services to third parties	Other input on regional practices; Reflexions and discussions on sustainable Europe
ECSEL Austria	AT	+	+	+	
ACstyria Autocluster GmbH	AT	+	+	+	
Minalogic*	FR	+	+	+	+
Zentrum Digitalisierung.Bayern	DE	+	+		+
UnternehmerTUM GmbH	DE	+	+		+
Cambridge Wireless Ltd	UK	+	+	+	+
Enterprise Ireland	IE	+	+	+	+
Nis Cluster of Advanced Technologies	RS	+	+	+	+
Fonazione Distretto Green and High Tech Monza Brianza	IT	+	+	+	+
Biosaxony E.v	DE	+	+	+	+
TECOS, Slovenian Tool and Die Development Centre	SL	+	+	+	+
Austrian Incubator Network AplusB	AT	+	+		
Silesia Automotive & Advanced Manufacturing Cluster	PL	+	+	+	+
Tallinn Science Park Tehnopol	EE	+	+	+	+
Estronics – Cluster for smart electronics	EE	+	+	+	+
Silicon Alps	AT	+	+	+	+
LITEK	LI	+	+	+	+
Logistik-Initiative	DE	+	+	+	+
Fluxdock	CH	+	+	+	+
Systematic	FR	+	+	+	+
Embedded-France	FR	+	+	+	+
INAM – Network for Advanced Materials	DE	+	+	+	+
Health Innovation Network South London	UK	+	+	+	+

2.4.1 Project website

The public project website will function as the main project communication tool, providing information on the available CPS and Embedded System technologies, open call procedures and selection criteria, and a contact form. It will function as a platform to community publicity of the project's developments and outputs, promote selected experiments, and promote lessons learned and best practices.

Regular updates to the website will facilitate updated project information, the showcasing of selected pilot projects, open calls and experiment results. Moreover, it will function as a central hub linking to and integrating all major social media activities and will provide support through a dedicated FAQs section, videos and animations.

2.4.2 Social media

Dissemination level: Public (PU)

THIS DOCUMENT WAS PRODUCED UNDER THE FED4SAE PROJECT (EC CONTRACT: 761708).

Page 12 of 51

Social media channels will be utilised to promote CPS and Embedded System technologies, promote open calls, and establish and attract local user communities and new users from across Europe. Social network presence will focus on Twitter, Linked and Facebook to maximise stakeholder outreach across different European regions.

FED4SAE Facebook and Twitter accounts will broadcast project news at high frequency, to support contact with local communities and attract new project participants and supporters from Europe and beyond. More specifically, Twitter will be used for community-building purposes by utilising appropriate Twitter handles and hashtags, including event hashtags, to gain prominence. The project's LinkedIn page will aim on-board representatives from key audiences through encouragement of animated discussions, opinion- and insights-sharing and crowd sourcing of relevant information in the CPS space.

We will follow a diversified social media engagement strategy, as outlined in the image below:
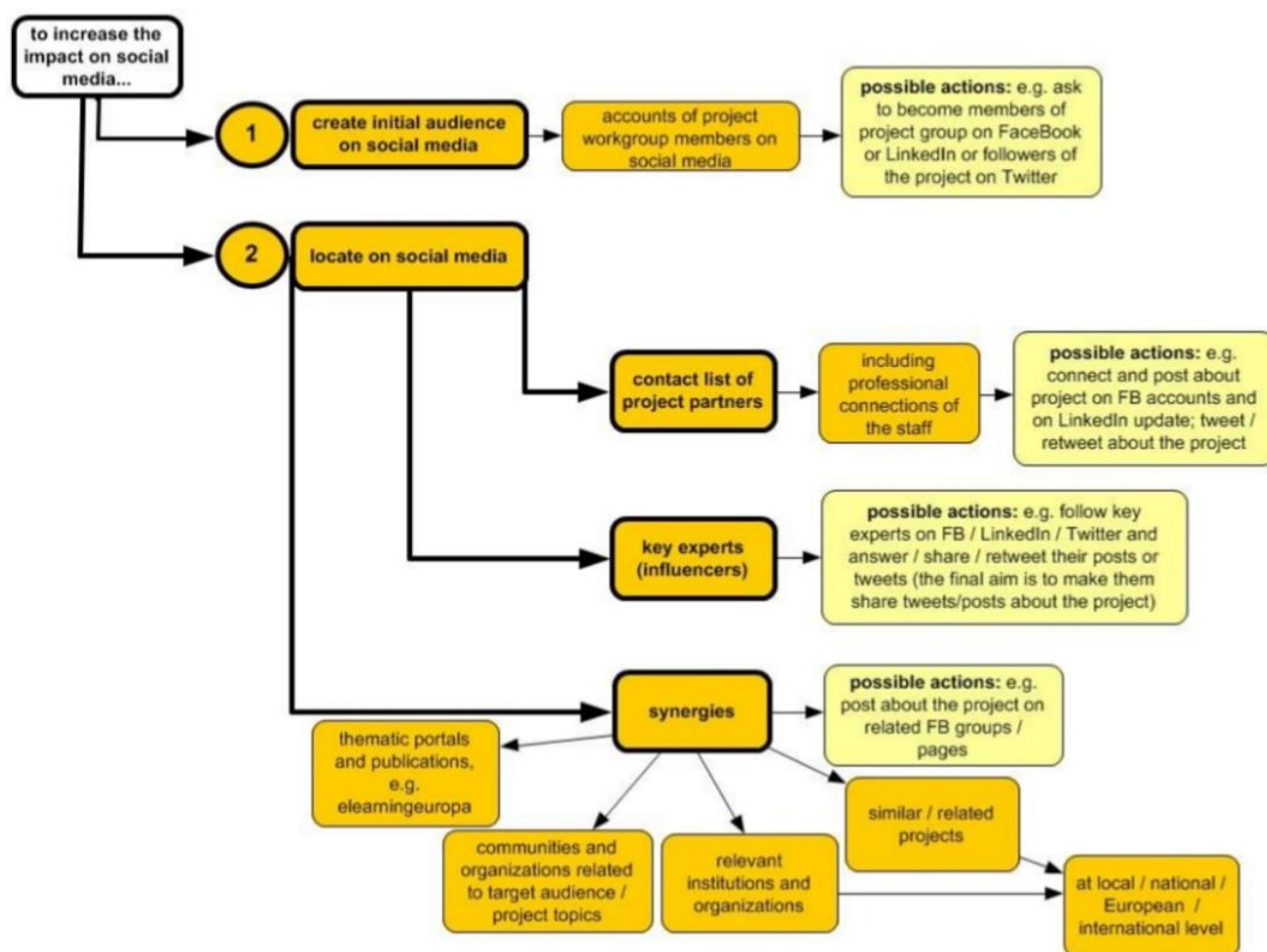
Figure 2: Social Media Engagement strategy (Giannatelli)

Initially, the social media posts will focus awareness-raising, via introductory posts to the project, its members, and the support provided to selected AEs. It will also serve to promote the open call.

In subsequent years social media posts will include the dissemination of AE results, and promotion of

selected AE companies in the CPS sphere.

It is important to note that social media is just one dissemination strategy. The blog post 'Going social with product Development' highlights that "it takes more than… Facebook or Twitter", but that *"by **connecting people around product and project context, companies enable "social discovery" which fundamentally changes the available talent and expertise available to a project**"* (Brown).

2.4.2.1   Facebook

The consortium plans to post at least 200 posts throughout the duration of the project to disseminate generally understandable information about the project idea, approach, open calls, DIHs and results.

2.4.2.2   LinkedIn

FED4SAE will produce at least one LinkedIn post per month, focussing initially on project introduction, and establishing online credibility for FED4SAE, followed by dissemination of the Open Call in the first year. This is particularly relevant, as an IEEE survey has shown that engineers prefer LinkedIn (Don).

2.4.2.3   Twitter

FED4SAE aims to disseminate on Twitter through the dissemination of generally understandable information about the project, its approach, open call funding opportunities, open call results and the network of Digital Innovation Hubs. The project aims to generate at least 300 followers.

Several relevant hashtags including #CPS, #cyberphysical, #SAE, #DIH, #IoT, and #IIoT have already been identified, and the FED4SAE has identified and follows 70 European CPS influencers.

2.4.3   Other online promotion

Webinars will complement local workshops to more broadly support applicants from all European regions to prepare submissions to open calls.

Business-to-business communication in dedicated (online) magazines including Third parties through local innovation hubs will push scientific and technological innovations for uptake by market actors and increase the accessibility.

Blog posts by FED4SAE experts and guest blogs by Third parties will share learnings and success stories with the broader CPS innovation community.

We will also reach out to broader, relevant communities to disseminate the open call:

Dissemination level: Public (PU)

THIS DOCUMENT WAS PRODUCED UNDER THE FED4SAE PROJECT (EC CONTRACT: 761708).

Page 14 of 51

Table 3: CPS communities for FED4SAE online promotion

Type	Name	Links
Component distributors	EBV	http://blog.ebv.com/
	Tech Data	http://www.as.techdata.eu/emea/
	Mouser	http://www.mouser.com/blog;
	Digikey	https://www.digikey.com/en/blog
Industry publications	Smart Industry	https://www.smart-industry.net/
	Iot Daily	https://iot-daily.com/
	Embedded	https://www.embedded.com/
	Connected World	https://connectedworld.com/
	IoT Business	https://iotbusinessnews.com/
	IoT World Magazine	http://iotworldmagazine.com/
	Embedded Computing	http://www.embedded-computing.com/
	In Compliance Magazine	http://incompliancemag.com/

2.4.4 Presentations, events and workshops

Presentations, events and workshops will serve to disseminate the project actions and goals, open calls and AE company gains. Through these events, FED4SAE aims to interact with stakeholders, other researchers, local innovation hubs in the field, investors and the general public.

Workshops will be organized to disseminate on the open calls to reach start-ups, SMEs and midcaps. They may be organized through local innovation hubs associated with FED4SAE, local meetup communities, and other relevant communities with which consortium partners have an established relationship.

The FED4SAE partners will organise at least one workshop for each Open call, and disseminate the project at one major event per year.

Events will be organized to showcase the AE results enabling Third parties to network and test the attractiveness of their business cases. The events will be organized in connection with existing national or international trade and industry events, where local innovation hubs associated with FED4SAE will help with organisational aspects.

Additionally, all FED4SAE partners will disseminate via IoT meetups, and exploit the fact that many major European cities already have such a meetup ecosystem in place, with London's IoT meetup having more than 8k members for example.

To keep track of partner activity and provide for a global overview of dissemination activities by each partner at conferences, the consortium has created a dissemination monitoring form (see ANNEX 1: Activity Reporting Spreadsheet) with a section dedicated to Events. This information will be used to identify strong and weak areas of dissemination and adjust the events planning and adjust accordingly.

2.4.5 Print promotion

2.4.5.1 Press releases and press notes

Press releases and press notes will be used to communicate open call notification and experiment benefits and results. They will be prepared for important project events to stimulate broader public

Dissemination level: Public (PU)

THIS DOCUMENT WAS PRODUCED UNDER THE FED4SAE PROJECT (EC CONTRACT: 761708).

Page 15 of 51

interest and foster the creation of partnerships with regional networks, partners and investors.

The information will be disseminated in local languages preferred by potential users by leveraging the international background and language capabilities of the FED4SAE consortium.

2.4.5.2   Project brochures

Project brochures and leaflets will be used to attract attention and to generate interests for an optimal exploitation of the project's results. They will be made available as a support tool for events and for regional innovation networks and accelerators to communicate on the project opportunities and results.

Project posters, banners, and leaflets will be created for presentations within relevant European and international events. They will represent an abstract version of the most up-to-date brochure with extensive visuals. For versions in the partners' languages, each partner will provide a translation that can be integrated into the master-copy layout and send to the partners electronically. All partners will assume responsibility to maximize the visibility of the project and convey its findings and outputs to the relevant stakeholders relying on their strong outreach capacity. They will be encouraged to present the project (poster, paper) at relevant national, European and international events.

A first version of the project poster and leaflet are already available to the consortium, and attached in ANNEX 2: FED4SAE Flyer and Poster.

2.4.5.3   Project slide deck

An initial dissemination slide deck has been created for the consortium, including project background, aims, the FED4SAE mission, open calls, and introduction to partners. The slide deck is available in an editable format to all project partners, so it can be adapted to relevant local contexts.

2.4.6   Private meetings

Private meetings will affirm the linkage between innovative companies and public/private investors with the objective of enabling Third parties to pitch their innovations and secure investment funding under mutually agreed terms enabling the companies to bring their innovation to market.

The project will be introduced at working groups and at venture-capital funds in order to establish potential funding opportunities for selected application experiments post project-close.

2.4.7   Open Calls

Three open calls will take place thought the duration of the project. The process is highlighted in Figure 3: FED4SAE Open Calls, below.

Figure 3: FED4SAE Open Calls

2.4.7.1   Call dissemination

FED4SAE dissemination will occur throughout the duration of the project via cluster meetings and activities summarised above. However, the consortium will also carry out dissemination actions around the open calls:

- Before each of three open calls, engagement in community-building and pre-engagement activities, in order to build project and open call awareness
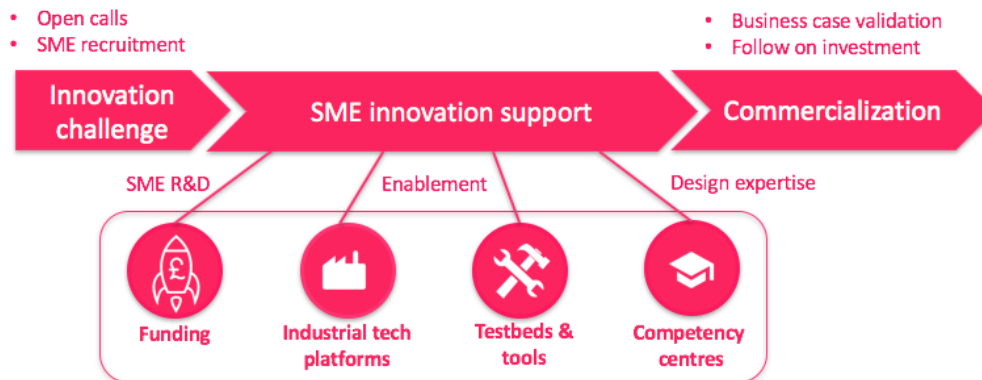- During each open call, engagement with SMEs, and sharing their success stories
- Following the series of open calls, dissemination of results via demo-days, through success story blogs, and at conferences and events where SMEs are supported in sharing the impact FED4SAE has had to their CPS product development

Companies interested in CPS solutions will be made aware of open calls via social networks, the project's website and locally organized events.

2.4.7.2   Promotion and showcasing of AEs

Various tools for different stages of AE development (in relation to WP3) will be developed and distributed:

- Before the call: Explanation of selection criteria, provision of links to download open call documents and contact information for questions;
- During AE development: Lessons learned and next quarterly steps;
- At completion: One minute video 'elevator pitch', which can be used by companies to raise their chances of funding;

Additionally, the consortium will highlight 'success stories' via social media, its partners, and a dedicated case studies section on the public project website.

2.5 Collaboration with other projects, organisations and clusters

FED4SAE brings together a diverse consortium throughout Europe, with a wide network and experience in related projects.

Specifically, in order to disseminate FED4SAE opportunities, its mission, lessons learned, and success stories, the consortium will maintain close ties with:

- EuroCPS project
- I4MS initiative
- CPSE Labs project
- Gateone project
- Newly granted Smart Anything Everywhere (SAE) projects (Diatomic, Tetramax, Smartees) under the Smart4Europe leadership

FED4SAE will also attend regular cluster meetings and reach out to regional innovation networks and accelerators in order to reach companies to whom FED4SAE may be of interest, and establish networks for FED4SAE AE applicants to tap into during and after the FED4SAE project officially ends.

2.6 Dissemination schedule

There will be the three open call phases for interaction with the innovative companies in M3, M9, and M15 with the aim of receiving at least **150** AE proposals, of which at least **30** high-quality proposals are selected. Experiments are to last a maximum of 18 months, following which the consortium will select projects to highlight success stories and case studies.

In parallel to the three calls, a number of regional events will be organized. These include drop in clinics, networking events and meetup groups across the DIHs, prior to the calls. Furthermore, to directly inform the target groups about their benefits from using CPS and Embedded System, and joining the FED4SAE project, the consortium partners will also organise three annual joint events with selected Third party supporters, like major European cluster organisations and industry associations active in different application industries.

Lastly, to ascertain best sharing practices across regional DIHs, three annual workshops with Regional innovation networks and accelerators, with policy makers and the SAE community (including existing networks and SAE projects) will be organised.

The overall timeline for key project dissemination is summarised below.

Table 4: Timeline for key dissemination channels

FED4SAE	Project Year 1												Project Year 2												Project Year 3											
	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
Website			▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓
Social Media		▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓
Open call workshops			▓	▓					▓						▓																					
Regional and international events		▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓

Dissemination level: Public (PU)

THIS DOCUMENT WAS PRODUCED UNDER THE FED4SAE PROJECT (EC CONTRACT: 761708).

Page 18 of 51

3   Dissemination Strategy by DIH

FED4SAE involves interdisciplinary skills and methodological know-how from world class RTOs (academia and research institutes) and industry, including SMEs, all along the value chain, and which are key factors for the setting up and successful operations of the pan-European network of multidisciplinary Digital Innovation Hubs. The consortium is composed of fourteen organisations, of which eight are RTOs, five are industrial partners, and one SME. The consortium is led by CEA, whose explicit role is to be at the very interface of industry and academic research.

The consortium has a wide range of expertise.

Table 5: FED4SAE partner expertise

Partner	Strengths	Expertise for AE
AVL (Austria)	Development of powertrain systems.	Smart transportation Open platform
BME	Smart systems integration	EuroCPS design Center Innovation support
Blumorpho (France)	Open Innovation Innovation risk management Collaboration models	Investor readiness. Facilitate initial funding rounds. Access to finance.
CEA – Leti (France)	Silicon systems and Sensors Middleware Distributed systems.	Self adapting applications. IC design ULP networks
CSEM (Switzerland)	Manufacturing; energy mgmt, renewables.	Microsystems. Analog signal processing and data acquisition.
Digital Catapult (UK)	IoT, Artificial Intelligence, Distributed manufacturing.	Access to LPWAN network. LPWAN IoT project acceleration.
Fortiss (Germany)	Software intensive systems.	Smart manufacturing demonstrators. Open source software infrastructure for distributed industrial process measurement and control systems.
Fraunhofer IISB (Germany)	Integrated systems. Power Electronic systems	Advanced power device simulation, design and fabrication.
Intel (Ireland)	Hardware platform: Neural compute stick and Movidius compute card.	Deep learning. Machine vision and Artificial Intelligence.
KTH (Sweden)	Innovative Centre for Embedded Systems Mechatronics	IoT, autonomous systems, 5G testbed, autonomous vehicles. Product development.
ST Microelectronics (France and Italy)	Hardware Nucleo , STM32 microcontroller, sensors. WESU wearable and motion platform	Low power systems, security ICs, dev kits, wireless communication.
Thales (France)	Avionics computer solutions. Real time mission critical embedded systems.	Access to open platforms. Cyber security.
Unican (Spain)	Smart Cities Network planning and mobile communications Lab	Leverage Smart Santander testbed and ecosystem.

Consortium members will combine their individual, area expertise and regional ecosystem expertise to broadly and widely disseminate FED4SAE project goals, open calls, and results.

A brief introduction and dissemination channel by project partner is provided in the pages that follow.

THIS DOCUMENT WAS PRODUCED UNDER THE FED4SAE PROJECT (EC CONTRACT: 761708).

Page 19 of 51

3.2 BLUMORPHO

3.2.1 Introduction

BLUMORPHO is a private innovation accelerator, founded in February 2015, operating in France and Germany. It drives innovation by bringing its understanding of economic and industrial challenges and its global connections to the deep tech, digital and smart solutions ecosystem.

BLUMORPHO is part of the Yole Développement group, a recognized strategic and marketing consulting company active in semiconductor, photonics, microelectronics, advanced packaging.

Unlike incubators or accelerator programs that invest in promising start-ups, BLUMORPHO focuses on reducing the technological, market and financial risk of adopting innovation.
Through its Fast Track Open Innovation service, it facilitates the cross-border discovery of radical innovations and tests their market feasibility for industrial firms seeking new ways to create value at low risk. Through its lean innovation service, BLUMOPRHO provides innovators with resources to swiftly move from product concept to product demonstrator, thus enabling the innovation provider and its lead customers to reach quicker 'Go/No go' product development decisions.

BLUMORPHO links innovation providers with private investors. BLUMORPHO provides innovative companies with the expertise and services they need to reach the maturity expected by private investors.

BLUMORPHO operates as a Private Digital Innovation Hub with a focus on industrial and private investment to accelerate innovation while driving New Product Introduction programs based on Lean and Open Innovation.

BLUMORPHO is accelerating the transition from technology to market adoption in structuring the relevant value chain. Its team is working hands on to develop innovation with high differentiation that will make the difference in the market place.

3.2.2 National context and relevant existing networks

Due to its creation following the COWIN project (CSA – FP7), dedicated to supporting the commercial exploitation of FP6 and FP7 research projects results, BLUMORPHO holds a strong European network.

Moreover, due to its use of a sophisticated set of algorithms to manage its marketplace 'Offer-Match-Demand' exchange process, BLUMORPHO holds a portfolio of 200 innovations, 42,000 corporate contacts, 7,400 start-ups, 200 clusters and more than 300 investors and business angels. It brings with it 20 years of technology and market know-how, and its network is evolving and increasing daily, currently covering more than 24 vertical businesses and the full value chain.

Additionally, BLUMORPHO is the coordinator of the Gateone-project, an Innovation Action supporting the collaboration between European SMEs and RTOs for the adoption of smart systems. Through this process, BLUMORPHO reached 750 SMEs that entered into the Gateone-project selection process, of which fifty have developed demonstrators.

3.2.3 Target audiences, channels and messages

For the first year, BLUMORPHO will focus primarily on diffusing the open calls and looking for companies involved in the European economy, in both target groups A and B, with some activities to target group C.

Table 6: Target audiences for BLUMORPHO

Target	Needs
Target A: Start-ups, SMEs, Mid-Size companies looking for digital innovation technologies and CPS integration in their next generation's product	To engage companies that will be ready to enter into innovation in having access to disruptive technologies and in engaging into attractive business cases. To engage companies able to express functions requirements related to concrete market needs. To build relevant roadmap with companies to facilitate their CPS adoption.
Target B: European clusters active in various application fields	Being recognized as a long term trusted partner towards European clusters spreading news on FED4SAE calls and activities and encouraging their members to benefit from FED4SAE support.
Target C: Investors	Lowering risks by having access to 'FED4SAE' approved and investment ready companies. Saving time in selecting possible investment targets on a European basis. Benefitting from DIH expertise regarding CPS market and evolution. Provide support to companies earlier than in their standard process.

BLUMORPHO will focus on disseminating the project objectives and Open Call opportunities in year one, using the relevant communication tools developed by the consortium.

Specifically, BLUMORPHO will:

- Disseminate the FED4SAE open call to all companies that entered into the Gateone-application process;
- Spread the news on FED4SAE and calls to partners' organization;
- Develop a new communication campaign towards start-ups, SMEs and midcaps part of its network and encourage application to FED4SAE acceleration program ;
- Participate to a selection of events gathering European start-ups, SMEs and midcaps;
- Promote FED4SAE calls in various webinars organized by BLUMORPHO in the scope of private activities or European projects BLUMORPHO is involved in;
- Disseminate the call on social networks and the BLUMORPHO website.

The communication on FED4SAE will also be carried out with the support of Yole Développement through LinkedIn, Twitter and i-micronews.

The communication towards investors will be done in organizing specific meetings within BLUMORPHO's network. It will include business angels, private investors and corporate contacts.

3.3 BME

3.3.1 Introduction

The BME Department of Electron Devices (BME DED) is an educational and research centre in Microelectronics, with special focus on Smart System Integration, Multiphysics design and characterization. Its reputation in this field was fostered by its participation in more than 20 European projects, several of them concluded in spin off companies.

As such, BME DED has maintained excellent relationship with SMEs for decades both in terms of creating spin offs and supporting other SMEs with industrial research and development. The best known among them became part of Mentor Graphics, today part of Siemens. Another enthusiastic team of researchers at the Department formed the core design team of the first Hungarian team of pico satellite MASAT and later they span out as C3S (Complex Systems and Small Satellites Ltd) which became an important player of the central European space technology sector.

Related to microfluidics, a new research and development field of the Department a new spin off, SpinSplit Llc was created recently. In the framework of the EuroCPS project BME was very successful in consulting Hungarian spin offs, both of them are the success stories of the EuroCPS activities. We were also successful in consulting international companies e.g. from Ireland and Holland.

BME DED will host the website of the FED4SAE project. BME DED is currently also the host of the Smart Anything Everywhere initiative's website. Within the EuroCPS project BME has developed a web based Industrial Experiment (IE) proposal submission and treating system, that will be used also for the treatment of the Industrial Experiment proposals within the FED4SAE project.

Within the EuroCPS project BME created a EuroCPS design centre, a laboratory, especially dedicated for consulting SMEs. The coached SMEs were not only those, who have won financial support from EuroCPS but also such who applied but did not succeed. The coached SMEs were mostly from Hungary but some of them from abroad (e.g. Estonia). BME DED helped them in solving their technical problems with the Intel and St Microelectronics CPS platforms. BME also has helped numerous SMEs in the submission of proposals for Industrial Experiments.

Beyond helping SMEs with their CPS platform related problems we will also give them guidelines in smart system integration issues, with special emphasis on thermal management, thermal and electro-thermal issues, reliability issues, etc.

3.3.2 National context and relevant existing networks

In the framework of various national projects the Department supported local SMEs and midcaps in their research, development and innovation activities, leading to successful new products in various fields of smart systems. The same kind of SME support activity will be continued within the FED4SAE project.

BME DED plays an important role in the Hungarian national H2020 activities. We are involved in many of the activities of the Hungarian National Research, Development and Innovation Office and regularly participate in their information days as presenters. We get also slots in their information programs for SMEs. We can use their information network.

In addition, we maintain good relationship with ATEKNEA Solutions which is an international organization for the support of innovation for SMEs.

We regularly participate in conferences not only in microelectronics but also in related fields, e.g. health, chemistry, space applications, reliability, etc. where we distribute our flyers and the flyers of our projects.

3.3.3 Target audiences, channels and messages

Our target audiences are the innovative SMEs, who can be reached via our existing networks, and through the networks of our alumni. Our major goal is to help Hungarian SMEs in using the newest platforms of European providers with our help, in order to increase not only the capabilities and the business potentials of the SMEs but also to increase our own knowledge to gain new experiences in the applications and in usage of these new platforms.

This will help us to enhance also our capabilities in education. As one of the hosts of the Smart System Integration Erasmus+ Joint Master's degree program we have access to a large number of very carefully selected high quality, very innovative international Masters students, who expect education in the most up to date questions of designing smart systems. BME will leverage the network built around the synergies of its research and educational activities. At BME yearly, around 1500 students start their studies in Electrical Engineering or Informatics, and BME DED teaches most of these students for computer programming. This way our name is directly connected to most of the Hungarian electrical and computer engineers to information technology and innovations. For these reasons, the innovative Hungarian SMEs turn to us for consultation if they need help in selecting the intelligence to their smart products.

BME will focus on disseminating the project objectives and open call opportunities.
In the 1st project year, specifically by mid-November 2017 will have:

- The FED4SAE project website running and ready to treat the open calls, for the use of the entire FED4SAE partnership,
- Distribute the FED4SAE leaflets to advertise the project and the open calls.
- Participate in relevant Hungarian and international meetings to disseminate the project aims and the open call funding opportunity.
- Disseminate the project aims and open calls at international scientific events. One of such was Therminic 2017 in September Amsterdam, attended by several innovative companies.

3.4 CEA-Leti

3.4.1   Introduction

Leti, a technology research institute at CEA Tech, is a global leader in miniaturization technologies enabling smart, energy-efficient and secure solutions for industry. Founded in 1967, Leti pioneers micro- & nanotechnologies, tailoring differentiating applicative solutions for global companies, SMEs and startups. Leti tackles critical challenges in healthcare, energy and digital migration. From sensors to data processing and computing solutions including CPS activities, Leti's multidisciplinary teams deliver solid expertise, leveraging world-class pre-industrialization facilities. With a staff of more than 1,900, a portfolio of 2,700 patents, 91,500 sq. ft. of cleanroom space and a clear IP policy, the institute is based in Grenoble, France, and has offices in Silicon Valley and Tokyo. Leti has launched 60 startups and is a member of the Carnot Institutes network. This year, the institute celebrates its 50th anniversary.

CEA Tech is the technology research branch of the French Alternative Energies and Atomic Energy Commission (CEA), a key player in innovative R&D, defence & security, nuclear energy, technological research for industry and fundamental science, identified by Thomson Reuters as the second most innovative research organization in the world. CEA Tech leverages a unique innovation-driven culture and unrivalled expertise to develop and disseminate new technologies for industry, helping to create high-end products and provide a competitive edge.

CEA platforms have the skills and methodologies that enable it to meet both the needs of SMEs, ETI, as those of larger groups (reporting, certification ...). They are now at the heart of the dynamic national innovation able to face international competition. These shared platforms are the nerve centres from which organize the distribution of generic technologies to companies.

CEA Tech irrigates today ecosystems Grenoble and Saclay and their region, Rhône- Alpes and Ile- de- France. For the economic development of their environment, the platforms function as industrial motor source of innovation and growth for businesses:
- Integrated circuit and embedded systems design platform
- Nanoelectronics and micro- and nanosystems platform
- Technological innovation showroom (demonstrators)
- PULSE (Platform from IRT Nanoelec)

3.4.2   National context and relevant existing networks

CEA-Leti develops and design technological brick since decades and has the challenge to innovate in this domain and transfer it to the industries (Startup, SMEs, MidCaps and Large Groups). These missions are part of the DNA of the institutes of CEA Tech.

Regarding the CPS activities, Leti provides expertise in technology itself with chip design combining security, process capacities, energy efficiency and dedicated architecture. Leti provides also a great expertise in the system integration including a full and unique solution including sensors, processing, communication and energy. To go further the solution development, Leti set also testbed platform in various domains to secure the solution's validation.

With such an expertise and a background built day to day since many years, Leti builds industrial partnership with a large number of companies in all the CPS application domains.

Since 2000, CEA has initiated three open labs to connect arts, sciences, technologies, design and industries: Atelier Arts Sciences (arts, sciences & technology), Ideas Laboratory (user-oriented open lab) and Alps Design Lab (design open-lab).

Thanks to these initiatives, CEA integrated now a large range of ecosystem, means and know-how complementary to its technical expertise and platforms:

- Means/infrastructure : Technical showroom that shows CEA-Tech technologies, Creativity room, Immersive room, Fablab, MINATEC event infrastructure
- Know-how: Innovation Management, Marketing Innovation, Industrial Design, Design thinking, Innovation by uses, Design to cost, Support to industrialization, System integration, Storytelling, Script
- Ecosystem: Digital Innovation network (Minalogic, BPI, Captronic, ARDI, Region Rhône-Alpes, GateOne, etc.), Industrial partners (500 partners from start-up to large firm), Subcontractors (fast prototyping, industrialisation, etc.)

CEA has launched the construction of an Open Innovation Center structured around the main stages of the recovered innovation process in global standards, the OIC is conceived as a singular infrastructure providing networking, expertise, equipment, methods, innovative spaces and full range of service offerings to accelerate innovation and propose immersion in the world of innovation to technological component.

The project supports the CEA TECH recovery strategy which is envisaged in connection with its ecosystem. The OIC is strongly supported by the local authorities: the Regional Council Rhône Alpes and the Departmental Council of Isère provide respectively 35 and 23% of the project financing. In addition IRT Nanolec will also contribute with 4M€.

CEA relies also on Minalogic, partner of fed4SAE as CEA linked third party who brings In-depth knowledge of the regional ecosystem, In-depth knowledge of local SMEs and ability to connect pertinent actors together.

Minalogic is a global innovation cluster for digital technologies serving France's Auvergne-Rhône-Alpes region. The cluster supports the region's leading innovators by facilitating networking, fostering collaborative R&D, and providing companies with personalized assistance throughout all phases of business growth. The products and services developed by our members address all industries, from ICT and healthcare to energy and advanced manufacturing.

Minalogic was founded in 2005 and today boasts more than 300 members, including 270 companies. The cluster has certified nearly 450 projects that have secured total government funding of €794 million of the more than €2 billion in total R&D spending these projects represent. The 56 projects completed to date have resulted in 37 products (either on the market or in the process of being prepared for market release) and generated €1.25 billion in revenue.

Minalogic is member of the Silicon Europe Alliance, one of the biggest technology clusters in the world. In the Silicon Europe Alliance 12 leading European semiconductor clusters bring together the technological expertise and resources of Europe's leading players in micro- and nanoelectronics, one of the recognised "Key Enabling Technologies". This "cluster of clusters" represents over 2000 members (over 75% SMEs) and more than 250,000 jobs.

Moreover CEA-Leti, has been involved in the CPS solution development within European projects since several years especially with the lead of the already running CPS European projects (first SAE projects phase): EuroCPS and GATEONE.

3.4.3 Target audiences, channels and messages

Leti aims to reach a large network of industrials through several channels:

- Already existing partnership which will be able to inform their own network with such an opportunity
- Cluster in different application domains to disseminate the project news (open call and success stories)

More generally speaking CEA-Leti will disseminate through a large audience close to the industrial environment:

- Startups, SMEs and midcaps visiting us for discovering the R&D centre based on technical purposes or innovation awareness.
- Booth, conferences, or exhibition given all over Europe and beyond
- Network meetings on special days organised with our partners (including MINALOGIC) to promote CPS solutions
- MINALOGOC will also disseminate through a large and transvers network all over Europe (SiliconEurope cluster as an example)

Messages sent to the audience will be on line with the project communication:

- Accelerate CPS developments
  - o Software intensive projects
  - o System integration projects
  - o CPS with innovation component projects
- Get support from the European Commission
  - o Access to leading edge CPS platforms
  - o Access to Advanced Technologies and Testbeds
  - o Get technical coaching from experts
  - o Get innovation management support & Market place
 - o Get funding to support the action

Dissemination level: Public (PU)

THIS DOCUMENT WAS PRODUCED UNDER THE FED4SAE PROJECT (EC CONTRACT: 761708).

Page 26 of 51

3.5 CSEM

3.5.1 Introduction

CSEM is a private non-profit Swiss organization for research and innovation. Supported by the Swiss Confederation, CSEM's mission is to enhance the competitiveness of industry by developing new technology platforms and transferring it to the industrial sector.

Our operation is based on five strategic programs that address together the key challenges and the future of the industrial sector (I4.0, Advanced Manufacturing, IoT, e-Health, e-Energy)
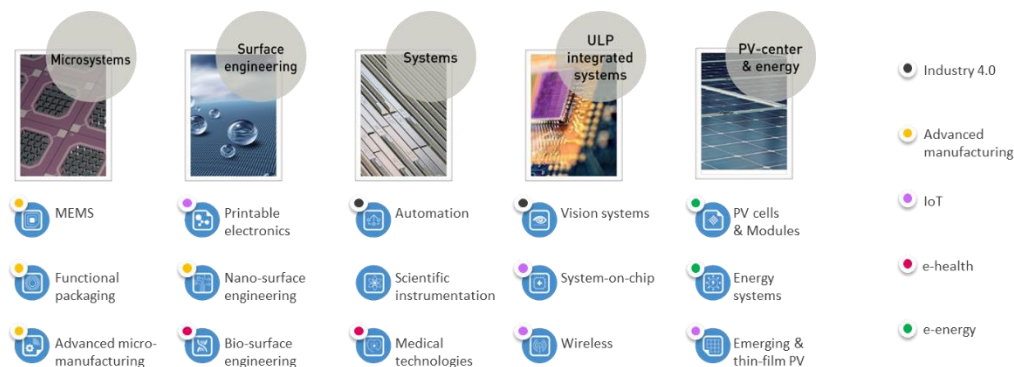
Figure 4: CSEM's five strategic programs

In each of the above, we have gained a reputable standing on the national and international levels by offering our customers and industry partners custom-made, innovative solutions supported by our extensive market knowledge and technology expertise.

CSEM plays a key role in the innovation value chain, by relying on public–private partnerships and narrowing the gap between fundamental research and industrialization with high flexibility in addressing a broad spectrum of technology research areas, which strengthens our commitment to innovation and sustainability and puts us in a better position to address future social and environmental challenges.

CSEM is poised to be a frontline player in digitalization and play a key role in the enablement of the digital economy.

3.5.2 National context and relevant existing networks

Switzerland, like most developed countries, is facing the major challenge of preserving its manufacturing industry in the face of ever increasing global competition while, at the same time, addressing the move to an energy- and resource-constrained society. Moreover, in line with digitalization, there is a clear trend towards personalize and customization of products. Innovation in manufacturing is essential for addressing those issues and for developing and deploying solutions to tomorrow's societal and environmental challenges, as well as to answer in a better way to customers desires. Hence it is important to propose to our industry and our society, new manufacturing paradigms, to move towards a more flexible and fair manufacturing industry.

The objective of this common program is to establish essentials components towards simplification and empowerment of the manufacturing supply chain. A key element is to develop a new generation of

versatile, desktop micro-manufacturing systems, in particular tools, equipment and processes. Each one of these components targets to support the local industry.

A strong movement on desktop manufacturing appeared in the end of the nineties, in particular in Japan. This was the miniaturization of existing systems, while the additive manufacturing factors has not been considered.

Several initiatives have raised in Switzerland to enhance competitiveness of local industry and especially SMEs to prepare entering the digital era.

CSEM is a major player in the Micro-manufacturing Science and Engineering Centre (M2C), created recently in Switzerland and based in Neuchatel, which aims to accelerating the path from digital design to digital manufacturing. This centre will, among other, catalyse interactions between R&D institutions and industrial partners in augmented manufacturing domains, coordinate research projects in the field of advanced manufacturing, and ensure efficient technology transfer to industry

FED4SAE project is completely aligned with the objectives of M2C Centre and will help Swiss SMEs exploring new technologies that are essential to entering into the augmented manufacturing era and addressing their present and future issues.

The expected benefits for the local industry are multiple. For established SME's in the machine tool industry new tools and methods will be made available for commercialization, adapted to the future needs of the manufacturing industry.

3.5.3   Target audiences, channels and messages

CSEM will focus the project dissemination before and during the open calls by using our usual communication channels and our partner's networks to

1. Advertising the project and Open Call funding opportunity
2. Disseminate the project aims

Table 7: CSEM target audiences

Target	Needs
Target A: (Public, Economic Agencies) Commerce Chambers Economic Promotions	To enhance the industrial competitiveness in Switzerland in globo but also in their related cantons/regions
Target B: (Associations) Including several SMEs working in different domains (Biotechnology, Micro-technology, Renewable energy)	Implementing digital innovation in their production or services activities. Access and use of CBS in their next generation products
Target D: Business	Local SME and Mid-Size enterprises looking for digital innovation technologies and implementing CBS in their next product generation

Dissemination level: Public (PU)

THIS DOCUMENT WAS PRODUCED UNDER THE FED4SAE PROJECT (EC CONTRACT: 761708).

Page 28 of 51

3.6 DigiCat

3.6.1   Introduction

Digital Catapult is a market-led technology and innovation centre, helping businesses of all sizes to use digital technologies to grow, export and increase productivity. In the context of FED4SAE, Digital Catapult serves as a competence centre and Digital Innovation Hub, with well-established links to the UK ecosystem.

Digital Catapult works across the UK, with centres currently in London, the North East & Tees Valley, Yorkshire, Brighton and Northern Ireland, in collaboration with local enterprise partnerships and universities, and industry partners including Rolls-Royce, Swiss Re, PwC, and Thales.

Several teams work on relevant CPS topics including big data, artificial intelligence and Internet of things, and Digital Catapult actively help UK companies familiarise themselves with Low Power Wide Area Networks technologies.

In addition, Digital Catapult actively supports the development of next generation connectivity, such as 5G, white space communications and the Janet academic network with a 100Gbps channel.

3.6.2   National context and relevant existing networks

Digital Catapult works to address barriers to innovation or failures in market development, through a range of interventions:

- Building, co-ordinating and increasing access to large-scale test beds
- Driving engagement between small and large companies
- UK, EU or international Collaborative Research and Development projects
- Accelerating the growth of markets by supporting ecosystems and helping exports
- Development of standards
- Building prototypes, testing feasibility of technologies
- Helping large companies become more efficient through the introduction of digital innovation

- Coordinated, market-led analysis leading to policy recommendations
- Providing access to equipment, skills and space

It focuses on four technology layers that align to the UK Government's "Building our Industrial Strategy" Green Paper (Government of the United Kingdom) and Innovate UK's emerging and enabling technologies strategy, housing leading-edge facilities, technology insight knowledge and business expertise deployed in:

- **Data-Driven:** new ways to work with personal data with more control and trust, applications of distributed ledger technologies, smart contracts, and cyber security particularly for emergent threats
- **Connected:** continuing the development of the Internet of Things (IoT), and associated enabling networking technologies such as Low-Power Wide-Area networks (LPWAN) and 5G
- **Intelligent:** Artificial Intelligence and machine learning – exploring how to help UK businesses access training data sets or even to do without them
- **Immersive:** augmented, virtual and mixed reality, haptics and related new forms of human machine interface.

Digital Catapult has built the UK's first IoT platform dedicated to LPWAN, named Things Connected. It was launched in September 2016, providing a LoRaWAN testbed together with an innovation support programme to ensure London is open and ready to innovate with the Internet of Things (IoT).

The platform was launched in London in collaboration with BT, Future Cities Catapult, Everynet, Beecham Research, AllThingsTalk, BRE, Imperial College London, King's College London, UCL and Queen Mary University of London, and Digital Catapult is extending the Things Connected network to other major cities in the UK in 2018.

Digital Catapult will leverage the network built and already active around Things Connected, which includes over 8 thousand interested participants in meetups.

Additionally, Digital Catapult is active across UK IoT meetups and clusters relevant to FED4SAE, including:

- LPWAN London meetup: 570 members
- IoT London meetup: 11,600 members
- Glasgow IoT meetup: 950 members
- IoT Scotland meetup: 1,200 members
- Hardware Pioneers meetup: several thousand
- Tech UK cluster – UK tech businesses with IoT Council

Digital Catapult will also leverage the network built around IoTUK, a £40 million programme funded by Innovate UK between July 2015 and June 2018, which includes three large IoT pilots in the form of a smart cities demonstrator (CityVerve), two IoT healthcare testbeds as well as a research hub for IoT security, privacy and trust.

IoTUK has an active following, with a reach of more than 5.3k Twitter followers, many of which are SMEs who may be interested in FED4SAE Open Calls.

Along with a growing network of businesses such as BOC, DSTL and RAF, who Digital Catapult is helping to accelerate their digital transformation and gaining competitiveness through the use of Internet of Things technologies, Digital Catapult has formal partnerships with world class digital and design clusters across the UK such as Cambridge and Shoreditch/London hub, plus access to the UK Knowledge Transfer Network, a single overarching national network covering a number of specific fields of technology or business application, with near 6000 registered innovation-intensive businesses. It also collaborates with the Open Data Institute, Tech City UK, Tech North, The Alan Turing Institute, the wider Catapult network and other partners on an evolving basis.

By leveraging the network of innovation-intensive businesses, and businesses in the IoT sphere through meetups, social media activity, and private meetings, Digital Catapult will ensure FED4SAE's aim, its open calls, and results are widely disseminated within the UK to relevant communities.

Digital Catapult is also actively engaged in other European projects and will contribute lessons learned from such projects started earlier. As an example, regarding Open Calls for the F-Interop project (H2020 Project ID 687884) we published the following observations:

"It is worth noticing was that applicants who actively engaged with Digital Catapult and related F-Interop initiatives (meet-ups, webinars, open call brief) during the preparation of their proposals, were successful in receiving funding. In fact, the success rate of groups that engaged with us more than doubled when compared with those who chose to engage less or not at all (42% versus 20%). In total, 70% of the successful proposals showed at least an interaction with Digital Catapult." (Nati)

In sum, Digital Catapult's established networks and engagement in complementary projects will be instrumental to enable FED4SAE engage from the outset with UK-based SMEs and roll out its dissemination strategy.

3.6.3 Target audiences, channels and messages

For the first year, Digital Catapult will focus primarily on diffusing the open calls and looking for companies involved in the UK economy, in both target groups A and B.

Table 8: Digital Catapult target audiences

Target	Needs
Target A: (Demand side) SMEs looking for CPS solutions but lacking internal resources and knowledge for development and implementation.	To have access to technology companies (AE candidates) capable of: - Architecture definition - Proof of Value Development and Implementation - Post implementation support and evolution
Target B: (Supply side) SMEs interested in AEs	Being recognized as a long term trusted partner. Expansion of their potential end customers to entire EU Visibility to investors and preparedness with fundraising.
Target C: Investors	Lowering risks by having access to 'FED4SAE' approved and investment ready companies. Saving time in selecting possible investment targets on a European basis. Benefitting from DIH expertise regarding CPS market and evolution.
Target D: Businesses looking to define new business models and improve competitiveness.	Speed up their digital transformation and innovation capacity with the help of DIH Be guaranteed with access to up to date mapping of CPS capabilities in Europe.

Digital Catapult will do so either directly or through other Catapult centres in the UK such as High Value Manufacturing, Future Cities, Energy Systems and Transport Systems Catapults.

Additionally, Digital Catapult will leverage it's social media following, including over 24.1k followers on Twitter, 1118 friends on Facebook, and 629 members on LinkedIn.

Additionally, Digital Catapult will disseminate project information and information on the open calls through project-specific channels that include:

- DesignSpark community: https://www.rs-online.com/designspark/home
- Maker communities/spaces in London and around the UK
- IOTUK Twitter, website, and blog
- Meet ups

Dissemination level: Public (PU)

THIS DOCUMENT WAS PRODUCED UNDER THE FED4SAE PROJECT (EC CONTRACT: 761708).

Page 31 of 51

- Things Connected groups and lists
- Mailing lists of fellow Catapults

The Digital Catapult teams have extensive knowledge and experience regarding CPS, and our goal for dissemination is to show companies how fast they can leverage this expertise for their own products and solutions.

3.7 Fraunhofer

3.7.1 Introduction

The Fraunhofer Institute for Integrated Systems and Device Technology IISB conducts applied research and development in the field of electronic systems for application in, e.g., electric mobility or energy technology. In this connection, the IISB extensively covers the complete value chain from basic materials to entire power electronic systems.

With its two business areas, semiconductors and power electronics, the institute provides innovation and solutions in materials development, semiconductor technology and manufacturing, devices and modules, vehicle power electronics, energy electronics, and energy supply systems. This is supplemented by broad activities in reliability, simulation, characterization, and metrology.

The headquarters of the IISB is located in Erlangen. The institute has two branches in Nuremberg and one in Freiberg. As one of the 67 institutes of the Fraunhofer-Gesellschaft, the IISB does contract research for industry and public authorities. Moreover, it closely cooperates with the University of Erlangen-Nuremberg and is a member of the "Energie Campus Nürnberg" (EnCN). The IISB has about 200 employees plus numerous students working as research assistants. The institute is equipped with high-class laboratories, such as a test centre for electric cars and an application centre for DC grid technology. Together with the University, it operates 1500 m2 of cleanroom area for semiconductor technology on silicon and silicon carbide.

3.7.2 National context and relevant existing networks

The IISB is a close partner for national and international industry. Its main objective is to provide excellent research to its customers and to set technological benchmarks as one of the leading research institutions in electronic systems. In order to maximize the reach of all of its FED4SAE activities Fraunhofer IlSB will utilize all applicable networks, e.g.:

- Leistungszentrum Elektroniksysteme (LZE)
- Energie Campus Nürnberg (EnCN)
- Cooperation with Friedrich-Alexander-Universität Erlangen-Nürnberg (FAU), with its Chair of Electron Devices (LEB) and its Chair of Energy Electronics (LEE)
- Nutzergruppen in der GMM-VDI/VDE-Gesellschaft
- Bayern Innovativ

3.7.3 Target audiences, channels and messages

At the beginning Fraunhofer IISB will focus on the dissemination on the open call opportunities and will contact mainly companies operating in Germany, the main target groups are:

- Start-ups, SMEs and midcaps active in the area of development of CPS
- Start-ups, SMEs and midcaps interested in application experiments, but without own technical capabilities

Fraunhofer IISB will disseminate the project objectives and in particular the open call opportunities during the full duration of the project using all available channels on national and international level. As soon as results by the application experiments become available, Fraunhofer IISB will disseminate these as well.

Dissemination level: Public (PU)

THIS DOCUMENT WAS PRODUCED UNDER THE FED4SAE PROJECT (EC CONTRACT: 761708).

Page 33 of 51

3.8 fortiss

3.8.1   Introduction

fortiss is a non-profit research and transfer institute closely associated with the Technische Universität München (TUM). It has been founded in 2009 with the sponsorship of the Bavarian Ministry for Economics as a co-location centre where practitioners work together with academic researchers for advancing application-driven research and for facilitating an accelerated transfer of ICT research results into industrial practice. fortiss currently employs 130 research staff members. There are currently more than 50 on-going research projects, about 70% of which are publicly funded by Bavaria, Germany, and the EU, and around 30% is contract research directly funded by industrial partners

fortiss' mandate is to facilitate research and technology transfer in software-intensive systems and services, thereby triggering future-ready innovation with the focus on application-driven research for engineering open, cooperative and trustworthy CPS for the marketplace. In this role, fortiss is bridging the notorious gap between fundamental research in academia and its fruitful implementation in an industrially and commercially feasible context. In its position fortiss develops and prepares advanced fundamental research results for uptake in industrial practice, but also identifies problems and challenges in the industry and communicates them for resolution by academia. In close collaboration with industrial partners, fortiss conducts R&D projects in various application domains which are the Bavarian key industrial sectors such as automotive, robotics and industrial automation, avionics, and business IT and cloud systems.

3.8.2   National context and relevant existing networks

fortiss is located in Munich, which has been ranked number one European ICT hub in a recent study by EC. Research and development centers of global powerhouses such as Audi, BMW, Huawei, Infineon, Intel, SAP, or Siemens, are located in the vicinity of fortiss, and there are more than 20.000 ICT-related SMEs and mid-caps in the Munich metropolitan region. There is an accelerating influx of ICT technology companies (e.g., Google, Microsoft, IBM Watson IoT), and numerous private investors and VCs are active in the region. Munich is also home to renowned academic institutions such as Technical University of Munich (TUM) and Ludwig-Maximilians-Universität, which are top-ranked in Germany.

Currently, major public investments are being made by the Bavarian Federal State as part of its digitisation strategy to accelerate the digital transformation of the industry. The newly founded Bavarian digitisation center Zentrum Digitalisierung Bayern (ZD.B) represents the main pillar for executing this strategy. fortiss is closely collaborating with the ZD.B centre and is an integral part of its mixed academy-industry thematic platforms, including ones for Connected Mobility, Cyber-Security, Digital Production, and Digital Engineering. Actions to achieve sustainability of FED4SAE' innovation support activities will leverage fortiss' link to ZD.B and its close contacts to SMEs in Bavaria, in particular through the ICT cluster network BICCNet. Furthermore, fortiss has well-established links to UnternehmerTUM, an innovation centre and incubator, and the large network of technology corporations and startups connected to the Munich Network organization.

fortiss is also an active member of several industrial associations including ARTEMIS-IA and BITKOM, and it is a member and the Munich satellite co-location centre of the EIT Digital, where it played a major role in building up the cyber-physical systems action line.

In FED4SAE, fortiss will bring in its experience gained from the CPS Engineering Labs project to support the creation of a pan-European network of Digital Innovation Hubs for CPS. CPSE Labs has established a European network of Design Centres to accelerate the transfer of scientific CPS engineering results into innovative products and services. fortiss will also particularly contribute to execute AEs with a focus on the Smart Manufacturing domain.

3.8.3   Target audiences, channels and messages

During the first year, fortiss will focus primarily on diffusing the open calls and looking for companies from the Bavarian region and the German economy, in both target groups A and B.

Table 9: fortiss' target audiences

Target	Needs
Target A: (Demand side) SMEs looking for CPS solutions but lacking internal resources and knowledge for development and implementation.	To have access to technology companies (AE candidates) capable of: - Architecture definition - Proof of Value Development and Implementation - Post implementation support and evolution
Target B: (Supply side) SMEs interested in AEs	Being recognized as a long term trusted partner. Expansion of their potential end customers to entire EU Visibility to investors and preparedness with fundraising.
Target C: Investors	Lowering risks by having access to 'FED4SAE' approved and investment ready companies. Saving time in selecting possible investment targets on a European basis. Benefitting from DIH expertise regarding CPS market and evolution.
Target D: Businesses looking to define new business models and improve competitiveness.	Speed up their digital transformation and innovation capacity with the help of DIH Be guaranteed with access to up to date mapping of CPS capabilities in Europe.

fortiss will disseminate information about the FED4SAE in general and the Open Calls in particular both directly to relevant SMEs in fortiss' own network, and through links to local innovation networks and clusters, e.g. the ZD.B, BiccNet, UnternehmerTUM, or MunichNetwork. Furthermore, fortiss will leverage on the networks established by related European projects in the context of DIHs, such as CPSE Labs, BEinCPPS, and MIDIH, in which fortiss is a participating.

fortiss will also benefit from its website as a dissemination channel in addition to its presence on several social media platforms like LinkedIn (currently 678 followers), Twitter and Facebook (totaling 332 followers).

Moreover, fortiss will aim to publicize the FED4SAE project information and details of open calls through channels specific to the Eclipse 4diac™ Advanced Component technology that fortiss is providing, including

- Eclipse 4diac™ news channel: (http://www.eclipse.org/4diac/en_news.php)
- Eclipse 4diac™ user groups and workshops
- IEC61499 European Competence Centre

Dissemination level: Public (PU)

THIS DOCUMENT WAS PRODUCED UNDER THE FED4SAE PROJECT (EC CONTRACT: 761708).

Page 35 of 51

fortiss is committed to disseminating FED4SAE project offerings and results throughout the entire duration of the project. Specifically, starting in mid-November with the launch of the first Open Call, fortiss will actively publicize the call through its various channels as listed above. fortiss will also support dissemination activities at the EFECS event in Brussels in early December (www.efecs.eu). About half-way through the call, fortiss will also seek to organize an information event for local SMEs to present FED4SAE and the Open Call. Similar activities will be started for the second Open Call around May 2018.

In addition, fortiss will ensure FED4SAE-related information is spread at key scientific events in the CPS domain, including the Embedded Real-Time Software and Systems congress (Toulouse, January 2018), the CPS Week (Porto, April 2018), and the Industrial CPS conference (Saint Petersburg, May 2018).

Dissemination level: Public (PU)

THIS DOCUMENT WAS PRODUCED UNDER THE FED4SAE PROJECT (EC CONTRACT: 761708).

Page 36 of 51

3.9 KTH

3.9.1 Introduction

The KTH Digital Innovation Hub on Cyber-Physical Systems is hosted by the Mechatronics and Embedded Control Systems Division at KTH. The Stockholm based DIH is aiming to become an active core of the Sweden innovation ecosystem related to CPS. We are strategically located close to Academia, industry and research and education. As part of KTH we also have a large international network to leverage.

We define our role as follows;

- Connect stakeholders in the CPS innovation eco-system
  - SME's, Enterprises, CPS experts and CPS related students
- Provide access to competence in CPS technology and business in terms of
  - Linking to funding opportunities and innovation agencies
  - KTH labs, KTH experts and connecting to other related KTH centres
  - Providing and stimulating development of continued education
- Support experiments and pilots – Innovation experiments These roles complement those of other actors in the innovation ecosystem. The roles further strive to establish collaboration with several of them. The corresponding activities address some of the key identified barriers to innovation in Sweden.

Research and the access to competence can play an important role in driving innovation. The hub provides connections to research groups, and also plays the role as a catalyst in setting up collaborations for example in terms of European research projects. KTH provides breadth and depth in terms of CPS expertise including in areas such as autonomous vehicles, software technologies, model-based engineering, advanced control, communication systems and MPSoCs.

Having access to a specialized lab can be a critical component when launching an innovation. The hub provides connections to relevant KTH labs such as the KTH Prototyping centre and the Integrated Transport Research lab. The Stockholm Makerspace is also located at the KTH campus (although organizationally separate from KTH).

3.9.2 National context and relevant existing networks

KTH offers a number of courses and programs including mechatronics, embedded systems, control and robotics, software engineering and machine learning. The corresponding students represent an essential asset for the region in terms of becoming engineers, inventors and company creators. The hub provides meeting points for connecting with engineering students. There are several ways for industry to interact with students during the engineering education including through projects, master thesis and dedicated matchmaking fairs. Capstone projects form a central part of best practices in engineering education and are for example used in the master programs in Mechatronics and Embedded systems.

A bottleneck in the educational system is the lack of explicit funding, tradition and recognition of continued education. ICES and the hub have to goal to improve on this situation, including through offering intensive courses and with the competence networks as one mechanism for individual competence enhancement for practicing industrial engineers.
The ICES centre and competence network forms a key asset of the hub. ICES is a KTH centre focusing on Embedded and Cyber-Physical Systems. ICES has some 30 industrial partners as

members and engages several research groups at KTH. The centre focuses on challenges which are common across industrial domains, and which typically require interdisciplinary collaboration. Many of these challenges relate to how to the manage complexity of increasingly capable, connected and automated CPS, but also to recruitment and competence provision. Based at KTH, ICES has identified engineering students, KTH faculty and industrial engineers as well as managers as key stakeholders of the centre.

Closely related to ICES, the hub is also active in several national and international networks which further facilitate bringing stakeholders together, and making it possible to connect resources of different kinds. These networks include;

- **Svensk Elektronik** - Svensk Elektronik is Sweden's leading industry organization for manufacturers, developers and suppliers in electronics.
- **Swedsoft** - Swedsoft is an independent, non-profit association that works to increase Swedish software's competitiveness. Members come from companies, academies and public sectors.
- **ARTEMIS/ECSEL** - ARTEMIS Industry Association is the association for actors in Embedded Intelligent Systems within Europe.
- **INCOSE** - The International Council on Systems Engineering (INCOSE), with collaboration in particular with the Swedish chapter of INCOSE.
- **CPSE Labs** – An EU initiative providing funding & support for innovative technology and engineering businesses (a H2020 innovation project).

3.9.3   Target audiences, channels and messages

Supporting Startups and SME´s is an important role for the DIH. The hub has excellent connections with KTH INNOVATION, the incubator STING (Stockholm Innovation & Growth) and the IOT related co-working space THINGS.

The hub in addition has close contacts with the public funding agency Vinnova, different EU Programs as well as other sources for funding such as the Vinnova funded national Innovation Programs. This gives us good abilities to guide and coach companies and initiatives to find the best funding opportunities for their needs.

3.10 UNICAN

3.10.1 Introduction

In the context of the project, the University of Cantabria will be represented by the Network Planning and Mobile Communications Laboratory. Beside the intrinsic academic role that can be tied to a research group inside a university, they are also behind the control and management of the SmartSantander testbed.

Precisely, this platform is the actual cornerstone upon which all the group efforts will be addressed, as they will host, coach and support all the AEs that aim at leveraging the plethora of services that SmartSantander offers.

Moreover, UNICAN's activities will be complemented with the presence of an underlying third party, as has been happening in many projects in the past: Santander City Council. Whilst the former one focuses on the technical realm, the second one, as a public institution and actual owner of SmartSantander itself, will be more biased towards the engagement of local and regional startups, SMEs and midcaps.

Thanks to FED4SAE, UNICAN's expectation is to enrich the SmartSantander ecosystem with new stakeholders. At the same time, these third-parties will be able to take advantage of the massive off-the-shelf infrastructure provided by the platform.

3.10.2 National context and relevant existing networks

Taking a retrospective gaze at the history of smart cities in Spain, SmartSantander was one of the first city-scale deployments. From this initial and successful use case, more and more cities started to follow the example and moved forward towards their own insight for the creation of their "tailored" smart cities.

As of this moment, more than 70 cities all around the country have coined the appellative of "smart", giving rise to the so-called "Red Nacional de Ciudades Inteligentes[1]" (which comes to mean National Network of Smart Cities).

Among them, SmartSantander still stands out as one of the most important city-wide IoT massive deployments and keeps drawing the attention of all statements, ranging from local associations to international media. It is also true that, whereas UNICAN has undertaken the technical leadership on the SmartSantander testbed from the very beginning, there have been other local and regional partners that have focused their efforts on other essential activities and roles, yet not so technical in nature. Namely, UNICAN has worked side-by-side with various public institutions and organizations, whose role address the dissemination and engagement of new stakeholders:

- Ayuntamiento de Santander (Santander City Council)
- Grupo SODERCAN
- Cámara de Comercio (Chamber of Commerce)
- Red de Parques científicos y tecnológicos (Network of Scientific and Technological Parks)

---

[1] http://www.redciudadesinteligentes.es/

3.10.3 Target audiences, channels and messages

In the short term, UNICAN's efforts will be oriented towards the spreading and engagement of potential new users and experimenters for the SmartSantander platform without geographical restrictions, as they have been doing since the first third-parties joined the platform.

Table 10: UNICAN's target audiences

Target	Needs
Target A: Scientific Community Scientific excellence	Researchers that target AEs validating novel technologies and aim at moving forward the current state-of-the-art
Target B: SMEs SMEs from a wide spectre of interests (SmartCities, Big Data, Machine Learning, etc.)	AEs that deal with the validation of IoT solutions that have a large potential for the commercial exploitations of existing or brand new products and/or services
Target C: Clusters and associations	Citizens concerned with what happens in the city have demonstrated that they can become sources of novel and attractive ideas

On this, we will leverage from the past experiences we have learnt from the organization of Open Calls processes in all their phases, mainly those ones that require a deeper technical background (they have also had a relevant role during their preparation), like the support during the experiments' lifetime or their subsequent evaluation. In addition to this, the group has also a wide experience on the following dissemination events that address the engagement and support of external stakeholders:

- Co-creation workshops
- Meet ups/focus groups
- Hackathons
- Training Workshops on how to (best) use the platform

Dissemination level: Public (PU)

THIS DOCUMENT WAS PRODUCED UNDER THE FED4SAE PROJECT (EC CONTRACT: 761708).

Page 40 of 51

4 Dissemination Strategy by Industrial Partner

4.1 Intel

Intel Corporation engages in the design, manufacture, and sale of computer, networking, and communications platforms. It has over $60 billion in revenue, 100,000 employees worldwide of which 23,000 are the European region supporting the key business units.

The New Technology Group is a technology incubator within the corporation exploring new business opportunities from Drones to Compute Vision, Novel user interfaces, Depth sensing cameras.

For the **IOT/CPS Markets** from which revenue has grown 23% CAGR to a likely $3B business, with partners such as Advantech, Kontron, Dell, AAEON, Arrow Electronics, Arris, provide range of Intel based Gateways, Single Board Computers, Set Top Boxes etc., and with distribution partners such as Arrow, Rutronik, Mouser and RS Components who distribute building block components directly to consumers in the IOT markets.

In this project Intel are seeding the Neural Compute Stick and the Compute Card which will be available from the usual network of distribution channels. Intel plans to explore with the above range of distribution partners the possibility of highlighting the FED4SAE Programme on the homepage of their website so that visitor from one of the eligible EMEA Countries who come to the site to search and purchase Intel or other CPS platforms from FED4SAE partners including ST Microelectronics, Thales, etc. will be made aware of the programme.

Within the first year of the project we aim to get agreement in principle on the above from partners selling the Neural Compute Stick or the Compute Card, and then secondly see what type of messaging they may be able to support and for what periods of time – ideally aligned to the opening of the FED4SAE calls.

As the Neural Compute stick was launched Q3 2017, and the Compute card is only launching in Q4 2017, we will need to work through our partner network to both raise awareness of these new platforms and to communicate the FED4SAE opportunities to them so that they can reach the wider customer base.

For the Movidius Compute Stick there is an online forum where users connect, get support, discuss challenges and learn from each other. Although just recently launched, the forum already has thousands of Users and we plan to connect to the users and make the aware of the rich opportunities in the FED4SAE Project. https://ncsforum.movidius.com/discussions

Internally, Intel has a large Sales and Marketing team in the European region who are road warriors – visiting key customers accounts to understand their needs, their product roadmap and exploring how Intel's technology roadmap can accelerate their business objectives. We intend to distribute the FED4SAE communication pack to these employees and to hold a series of internal open sessions to explain the FED4SAE Programme and to make these employees aware of the programme.

Within Ireland we plan to connect with three main organisation that are well connected to the target ecosystem for FED4SAE:

1. Enterprise Ireland
2. IRDG (Irish Research and Development Group)
3. SME Irish Small and Medium Enterprises Assocation.

Dissemination level: Public (PU)

THIS DOCUMENT WAS PRODUCED UNDER THE FED4SAE PROJECT (EC CONTRACT: 761708).

Page 41 of 51

Enterprise Ireland have already provided a letter of support for the project and are an active supporter of thousands of Irish statups and SMEs. They also provide a range of funding supports such as innovation voucher and take an active investment in disruptive SMEs that they believe will scale. In fact, the Neural Compute Stick is a product from Movidius which itself was an Irish SME and received support from Enterprise Ireland until it was acquired by Intel in 2016.

IRDG is a non-profit organisation which provides a network to 250 organisations in Ireland involved in Research. Its membership includes SME and multinational Companies, Research Organisations and Universities.

We presented the FED4SAE Project (March 2017) to the IRDG community at an event in Cork Ireland) and also at a further event Dell Limerick (Sept 2017).

ISME, the Irish SME Association, is the only independent representative association for Small and Medium Enterprises and currently has in excess of 10,500 members nationwide. Uniquely in Ireland, ISME is independent of big business, big banks and government and gives voice to the issues facing SME owner-managers.

Additonally, within a two-hour drive from Intel site is Belfast, the main city of Northern Ireland, and while it is not within the jurisdiction of the Irish Republic, we also plan to reach out to similar organisations in Northern Ireland. These include FSB, EnterpriseNI, SyncNI and IoT Belfast.

4.2 ST Microelectronics

STMicroelectronics is one of the world's largest semiconductor companies with net revenues of US$ 6.90 billion in 2015, serving more than 100,000 customers worldwide. ST has 11 main production sites, 7 Advanced R&D centres and 39 design and application centres, with more than 43000 employees over the world, and a presence in 35 countries. Offering one of the industry's broadest product portfolios, ST serves customers across the spectrum of electronics applications with innovative semiconductor solutions by leveraging its vast array of technologies, design expertise and combination of intellectual property portfolio, strategic partnerships and manufacturing strength.

ST will push forward its own reference platform WeSu, exploiting synergy between a STM32 microcontroller with inertial modules iNEMO and Bluetooth low energy wireless network processor, to explore new eco- systems driven by innovative SMEs and challenging applications, suitable to penetrate new potential markets in the next future. To favourite a fast and affordable prototyping, ST-I promotes, together with the previous platform, a broad range of expandable boards (X-Nucleo), based on leading-edge commercial products and modular software, of the Nucleo STM32 Open Development Environment eco-system. X-NUCLEO-IKS01A1 inertial and environmental sensors, X-NUCLEO-IDB05A1 Bluetooth 4.1 that can be considered the evolution of the archetypal and initial development of WeSU, will receive major promotion within the broad range of available shields/expansion boards for the STM32 Nucleo.

ST will also provide microcontroller platforms powered by Cortex M cores. It offers the complete range of platforms ranging from very low power ones with cortex M0 up to complex and performant ones based on cortex M7. It will provide the adequate support to disseminate knowledge of microcontroller platform in the networking partner ecosystem and then expand awareness of our platforms at European level.

Dissemination level: Public (PU)

THIS DOCUMENT WAS PRODUCED UNDER THE FED4SAE PROJECT (EC CONTRACT: 761708).

Page 42 of 51

ST Microelectronics plans to follow two main strategies for dissemination:

- The first is related to the technological dissemination on the platforms and devices proposed in the project FED4SAE; Project activities will be integrated with and reinforce the company planned promotion for that solutions.
- The second one is related to the promotion of the FED4SAE project activities to spread a broader knowledge of FED4SAE opportunities.

European events and workshops will be occasions to develop and grown a network of links within an interested community of possible "actors" on the project's objectives. Digital life, smart communication, digital factory, and smart energy will be the ST Microelectronics priority domains in which fostering the CPS paradigms.

4.3 AVL

AVL LIST GmbH is the world's largest privately owned and independent company for the development of powertrain systems as well as simulation, instrumentation and test systems. AVL has about 3450 employees in Graz (over 2400 graduated engineers) and a global network of 65 representations and affiliates resulting in more than 8050 employees worldwide.

In the context of FED4SAE, AVL will provide access to automotive market, expertise and respective tooling. In particular, it will provide the automotive platform "Integrated and Open Development Platform" IODP16. Furthermore, AVL will act as networking partner to link regional (especially Austrian) funding agencies and incubator platforms to the FED4SAE initiative.

AVL will reach out to regional funding agencies through presentations, workshops and regional events, through which it can promote FED4SAE to its local and regional networks. It will also promote its platform and the FED4SAE open calls at such events, to raise awareness about the open call opportunities, and engage potential funding agencies for additional funding from an early point in time.

4.4 Thales

Thales is a world leader for mission critical information systems, with activities in 3 core businesses: aerospace (with all major aircraft manufacturers as customers), defence, and security (including ground transportation solutions). It employs 68000 people worldwide (50 countries). It provides its customers with all the key functions in the critical information loop, from detection and processing to transmission and distribution.

Thales SA is involved in the FED4SAE project through its corporate research centre, the Thales Research & Technology centre from Palaiseau (France) near Paris, located since 2006 on the campus of the Ecole Polytechnique engineering school, close to CEA.
Thales Research & Technology employs 220 full-time staff, and some 40 doctoral students and 50 outside researchers are present on site.

The motivations of Thales for dissemination are: to increase the ecosystem of tool developers around the open platform supported by Thales, to promote the utilisation of the platform and connected tools, to do internal promotion of the platform.

The dissemination planned by Thales is based on regional networking (competitiveness clusters such as Systematic, AerospaceValley, etc.), European conferences (HIPEAC, etc.), events organised by

Dissemination level: Public (PU)

associations (Artemis-IA) and CSA projects. Thales is coordinator of the Platforms4CPS CSA project and is partner of the HIPEAC CSA (HIPEAC-5). Thales is thus in a good position to organise such dissemination.

For internal dissemination towards the business units of the group (six global business units with more than 40 business lines), Thales organises periodic technical dissemination events. This includes "Journée de Palaiseau" where external participants are also often invited (SME presenting innovative technologies). More than 150 of such events have already been organised since 2009.

Information on the platform itself and application experiments performed during the FED4SAE project will be disseminated during these events.

5 Evaluation and reporting

5.1 Monitoring and Evaluation Process

The partners will summarize the relevant information in an Excel spreadsheet, published on a yearly basis in Dissemination report deliverables. The format has been agreed and events thus far are visible in ANNEX 1: Activity Reporting Spreadsheet.

5.1.1 Key Performance Indicators

KPIs will be measured and reported to the EC and the public on a yearly basis in the Dissemination report deliverables. Targets are outlined in Table 11: FED4SAE Dissemination KPIs, and include:

- Community engagement
- Open call documents downloads
- Attendance of webinars and post event video views
- Website page views
- Number of publications and conference communication
- Number and reach of international events attended by partners
- Social networking reach (followers, number of posts) for Twitter, Facebook and LinkedIn

Table 11: FED4SAE Dissemination KPIs

Target groups	KPIs	Min. target- end of project
Tech companies	# of startups, SMEs and midcaps engaged through open call dissemination activities and events	500
	# of startups, SMEs and midcaps submitting proposals to open calls	150
	# of startups, SMEs and midcaps supported through open calls	30
	# of participation at exhibitions/trade fairs with selected Third Parties to promote experiment results	5
Newcomers	# of participation at exhibitions/trade fairs with selected Third parties to promote experiment results	2
Regional innovation networks and accelerators	# of participation in workshops with policymakers and SAE community	3
Investors	# of participation in private meetings with innovators	10
Policy makers	# of policy recommendations and implementation thereof by regional/EU bodies	2
SAE community (other projects in the call and CSAs)	# of participation in workshops with policymakers and regional innovation networks and innovators	3
Broader CPS and Embedded System innovation community	# of followers on social media (Twitter, LinkedIn, Facebook) # of website visits, click rate	At least 300 followers (Twitter); 200 posts (Facebook); 1 monthly update (LinkedIn); 20,000 website visits

Dissemination level: Public (PU)

THIS DOCUMENT WAS PRODUCED UNDER THE FED4SAE PROJECT (EC CONTRACT: 761708).

Page 45 of 51

6   Conclusions

The FED4SAE project intends to facilitate the development and commercial exploitation of CPS for productivity improvements and digital transformation in a wide variety of tech and non-tech sectors. Our dissemination strategy is articulated around tools such as project website, open calls, social media, online communication, conferences, publications and partner network growth.

The dissemination plan will evolve on a yearly basis based on the lessons learned. The goal at the end of the project is to ensure that the pan-European federation of digital innovation hubs becomes the core of dynamic online communities around CPS.

References

Brown, Jim. *Going Social with Product Development*. 2018 Nov 2009. 31 Oct 2017. <http://tech-clarity.com/going-social-with-product-development/1375>.

DFA Media. *60% of manufacturers are testing Industrial Internet of Things programmes but only 1 in 20 have a clear business case*. 29 Sep 2017. <http://pwemag.co.uk/news/fullstory.php/aid/2723/60_25_of_manufacturers_are_testing_Industrial_Internet_of_Things_programmes_but_only_1_in_20_have_a_clear_business_case.html>.

Don, Joel. *How Industrial Engineers Use Social Media*. n.d. 30 OCt 2017. <https://automation.isa.org/2016/08/how-industrial-engineers-use-social-media/>.

Giannatelli, Ada. *Social Media Strategy for Communication and Dissemination*. 26 June 2014. Politecnico di Milano. 30 Oct 2017. <https://www.slideshare.net/giannatelli/app4-inno-socialmediastrategywebinarslideshare>.

Government of the United Kingdom. *Building our Industrial Strategy*. Green Paper. London: HM Governmnet, 2017. <https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/611705/building-our-industrial-strategy-green-paper.pdf>.

Nati, Dr. Michele. *F-Interop Open Call: Lessons learnt*. 6 Sep 2017. Digital Catapult Center. 15 Nov 2017. <https://www.digitalcatapultcentre.org.uk/f-interop-open-call-lessons-learnt/>.

Dissemination level: Public (PU)

THIS DOCUMENT WAS PRODUCED UNDER THE FED4SAE PROJECT (EC CONTRACT: 761708).

Page 47 of 51

ANNEX 1: Activity Reporting Spreadsheet

Type of event (*)	Occurred/Forecast	Name of event	URL	Date	Location (**)	FED4SAE participants	Targeted audience (***)	N. of attendees (****)	Notes/Outcomes
Other events	Occurred	Digital Innovation Hubs, key towards broad digital transformation of European industries	http://i4ms.eu/	22 September 2017	Madrid, Spain	CEA (Isabelle Dor, Pierre-Damien Berger)	EC actors: EC representatives, VP Europe, EC project coordinators, a couple of SMEs	200-250	
Conference	Occurred	Smart Connected Devices Series with Dell EMC	http://www.irdg.ie/smart-connected-devices-series-continues-dell-emc-27th-sept/	26 September 2017	Limerick, Ireland	Intel (Finian Rogers)	SMEs	150	
Conference	Occurred		http://world-iot-expo.com/	25-27 Sep 17	Prague, Hungary	DigiCat (Michael Setton)	Suppliers, Industries		
Workshop	Occurred	Smart4Europe SAE Workshop			Madrid, Spain	CEA (Isabelle Dor, Pierre-Damien Berger)	SAE project coordinators	15	EuroCPS, Gateone, CPSElabs, Smarter-SI, FED4SAE, Smartees, Diatomic, Tetramax, Diatomic Projects --> community building by presenting each project specificities, previous experience feedbacks, open call organization, collaboration plan contents, future joint collaboration on dissemination events - 15 participants
Workshop	Occured	EARPA Task force meeting - Electronic and Component Systems	https://www.earpa.eu/earpa/31/1299/earpa_autumn_meetings_registration_open.html	4-5 October 17	Brussels, belgium	CEA (Bernard Stree)	RTOs	19	
Conference / Workshop	Occurred	Digital Innovation Hub - FFG (Austrian national funding agency)	https://www.ffg.at/europa/veranstaltungen/DIH_co_2017-10-23	23 October 2017	Vienna, Austria	AVL	FFG (national funding agency), BMVIT (minister), European Comission	approx 40	Reflection on DIH to set-up activities in Austria / return of experience related to EuroCPS / FED4SAE
Presentation	Occurred	Presentation of EuroCPS / FED4SAE to the Austrian funding agency (FFG)		23 October 2017	TBC	AVL			
Conference	Occurred	CSW Stuttgart	https://www.hipeac.net/csw/2017/stuttgart/	25-27 Oct 17	Stuttgart, Germany	CEA (Isabelle Dor, Pierre-Damien Berger)	EC actors, SME's & Midcap	200 (to be confirmed)	"SAE inno" session, presentatio of Fed4SAE
presentation / poster pitch	Occured	CPS Innovation Workshop	http://www.ices.kth.se/events.aspx?pid=3&evtKeyId=52dde9587474449a1b3ab6612b6b604'	31 October 2017	Stockholm	KTH	SMEs & Midcaps	30-40	
Conference	Forecast	ICT proposers' days	https://ec.europa.eu/digital-single-market/en/events/ict-proposers-day-2017	9-10 November 2017	Budapest, Hungary	CEA	EC actors, project coordinators		Workshop "Cascading Grants in Horizon 2020"
presentation / poster pitch	Occurred	Minalogic thematic day "CPS modeling"	http://www.minalogic.com/fr/evenement/journee-thematique-modelisation-des-systemes-cyber-physiques	16 November 2017	Grenoble, France	CEA	SMEs & Midcaps		
Meetup	Occurred	Meetup: Funding Opportunities in IoT	www.eventbrite.co.uk/e/meetup-funding-opportunities-in-iot-tickets-39688270686	20 November 2017	London, UK	DigiCat (Marie Baldauf-Lenschen, Michael Setton)	SMEs & Midcaps	22	
Conference	Occurred	ICES Conference	http://www.ices.kth.se/events.aspx?pid=3&evtKeyId=5167041d8e0e46039187a974f1c4cc84	22 November 2017	Stockholm	KTH	SMEs & Midcaps	50	
Conference / Workshop	Occurred	European big data value forum	http://www.european-big-data-value-forum.eu/	23 November 2017	Versailles, France	AVL	European commission, Big Data Value Association	approx 100	Reflection on DIH to set-up activities in Austria / return of experience related to EuroCPS / FED4SAE
Conference	Forecast	Efecs 2017	https://efecs.eu/	5-7 December 2017	Brussels, Belgium	CEA	EC actors, project coordinators		
Presentation	Forecast	Synchronization with regional start-up incubators	https://www.aplusb.biz/	TBD	Austria	AVL	Austrian start-ups		
Conference	Forecast	HiPEAC 2018	https://www.hipeac.net/2018/manchester/	22-24 January 2018	Manchester, UK	CEA, Thales	RTOs, SMEs, ...		poster session
Fair	Forecast	Techninnov 2018	http://www.techinnov.events/	8 February 2018	Paris-Orly, France	CEA	SMEs & Midcaps, investors		booth
Conference	Forecast	Date 2018	https://www.date-conference.com/	9-13 March 2018	Dresden, Germany	CEA			workshop
Conference	Forecast	Safety conf	TBD	21-22 May 2018	Stockholm	KTH	SMEs & Midcaps		
Conference	Forecast	Plattform Industrie 4.0	http://plattformindustrie40.at/	June 2018 TBD	TBD	AVL			
Workshop	Occurred	Regular meeting Platform Industry 4.0	http://plattformindustrie40.at/	23 July 2018	Vienna, Austria	AVL	Austrian Industry 4.0 scientific and industrial interested partners	approx 40	Project presentation and return of experience related to EuroCPS / FED4SAE
Conference	Forecast	SmartCity Expo World Congress	http://www.smartcityexpo.com/	14 November 2018	Barcelona, Spain	UNICAN			SmartSantander + bindings with FED4SAE

Dissemination level: Public (PU)

THIS DOCUMENT WAS PRODUCED UNDER THE FED4SAE PROJECT (EC CONTRACT: 761708).

Page 48 of 51

ANNEX 2: FED4SAE Flyer and Poster

Accelerating European CPS solutions to market from 2018-2020

We bring together ten countries, eight R&D centers, five industrial partners, and one SME to offer seven CPS platforms, advanced platform technologies and testbeds, innovation management support and expertise in smart cities, smart energy, smart health, smart manufacturing, smart mobility and smart transportation as part of the Smart Anything Everywhere Initiative.

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
- Up to €60k in initial financial support, plus access to further VC funding
- Access to potential users and suppliers across value chains throughout Europe

We support three experiments in our Open Calls:

- Software intensive projects using existing programming platforms to make software prototype demonstrator
- System integration projects using existing software and hardware components to make Integrated system prototype demonstrator
- CPS with innovative component projects using specific software and hardware components to make system architecture virtual demonstrator

What we offer

INDUSTRIAL PLATFORMS

intel

Neural Compute Stick
Movidius Neural 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

ST life.augmented

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

ST WeSu Wearable
WESU the latest motion sensing tech wearable or portable applications with iNEMO SIP sensors

AVL

IODP
Integrated and Open Development Platform for Automotive powertrain development

THALES

TIME4SYS
Timing Framework - System Modelling Framework for real-time embedded applications.

cea

Si Arch (CEA)
Silicon Architectural Study CPS applications using new technologies and devices

ADVANCED PLATFORMS

cea

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

PTL
Smart Home , Health and Transportation Test beds

KTH

AIDE
Data Management Tools for engineering of Cyber-Physical Systems

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

fortiss

4Diac
Infrastructure for distributed industrial process measurement and control

:: csem

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

WiseNET
Ultra Low Power Wireless Sensor Network

Vision in a Package
Vision in a Package / Intelligent Camera

Hyper Vision
Intelligent camera system for Hyper-spectral Imaging

WiseDep
Robust low power wireless for safety-critical applications

MÜEGYETEM 1782

Reliability
Harsh environment and systems integration reliability test environment

UC UNIVERSIDAD DE CANTABRIA

Smart City
CPS Massive urban infrastructure in technology and service assessment

Fraunhofer IISB

π-Fab infrastructure
A continuous silicon CMOS and silicon carbide process line.

CATAPULT Digital

LPWAN
Low Power Wide Area Network based CPS solution

INNOVATION SUPPORT

BLUMORPHO

Innovation Support
Business case support and access to further funding

First of three Open Call launches – 14 Nov 2017
Submission deadline – 6 Feb 2018, 17:00 (CET)
Notification of results – 20 Mar 2018
Apply – www.fed4sae.eu/innovative-projects/open-calls

Dissemination level: Public (PU)

THIS DOCUMENT WAS PRODUCED UNDER THE FED4SAE PROJECT (EC CONTRACT: 761708).

Page 51 of 51