



Project number: 826276

**CPS4EU**

*Cyber Physical Systems for Europe*

**D10.32 – Report on the publications v2**

**Reviewer:** P. Gougeon (VALEO)

**Dissemination level:** Public

Version	Date	Author (name – company)	Comments
V0.1	2020/07/29	T. Arvieu	First draft
V0.2	2020/08/31	T. Arvieu	Update
V1.0	2021/09/01	T. Arvieu	Main update

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## 1. INTRODUCTION

The CPS4EU project aims at fostering innovation that will maintain and strengthen European leadership in key sectors of the economy by creating synergies between SMEs, large companies and large research organizations operating in the CPS sector. In order to reach this objective and to ensure that CPS4EU results have a resounding impact, the partners of the project have put in place a dissemination and communication plan to promote the CPS4EU project and the results that arise from the joint effort in the project.

This document constitutes the deliverable D10.32 of CPS4EU and reports the publications done during the second year of the project. This document is the second, out of the 3 reports on the publications. In the Full Project Proposal, the Key Progress Indicator KPI-4.1 defines the objectives for the Scientific and Sectorial dissemination. The goal is to reach over 100 scientific publications and conference papers in the CPS4EU scientific disciplines and market segments. Promotion of use cases results using diverse dissemination and communication channels is also part of the activities of WP10.

This report presents the results in the following fields of dissemination

- Scientific and technical dissemination in the “JOURNAL PUBLICATION” section,
- Technical and professional dissemination in the “CONFERENCE PARTICIPATION & SPECIAL EVENT” section,
- Large audience and other dissemination media in the “PRESS, WEB POSTS & OTHERS” section.

## 2. JOURNAL PUBLICATION

Since April 2021, a new tool is in place to collect partners publications. This is a webform accessible through this link: <https://www.2iaconsulting.com/project-cps4eu/#publications>

Partner must describe their paper (similar to EC portal) and submit their paper in attachment.

All publications are collected by the PCO and transferred to TPC for validation.

Publications are also accessible through this link: <https://airtable.com/shrH1mh5Cv8LYcEoo/tbln9hivFWSePKrF1>

**In total, 55 publications have been published since the beginning of the project.**

Airtable Grid view Use this data

3 hidden fields Filter Group Sort

Id	Type	Title	Authors	Title of the journal/proc...	Date or freq of the jourm...	Peer-reviewed	Open Access	Joint public...	D.O.I. link	Repository link
21	Publication in Con...	Model-based Quantitative Fault Tree Analysis based on FIDE...	Nataliya Yakymets, Morayo...	ISSRE 2020	October 2020	✓	Green Open Access			<a href="https://www.researchg...">https://www.researchg...</a>
22	Publication in Con...	A Model-Based Safe-by-Design Approach with IP Reuse for ...	Morayo Adedjouma, Natali...	ICSEA 2020	July 2020	✓	Gold Open Access			<a href="http://www.thinkmind...">http://www.thinkmind...</a>
23	Publication in Con...	Modeling the Partial Renewable Power Curtailment for Trans...	Alessio Iovine, Duc-Trung ...	<a href="https://www.powertech202...">https://www.powertech202...</a>	June 2021	✓	Green Open Access	✓		<a href="https://hal-centralesup...">https://hal-centralesup...</a>
24	Publication in Con...	Self-adaptive Middleware Support for IoT and CPS A System...	Mahyar T Moghaddam, Eri...	ACM computing surveys	Quarterly	✓	Green Open Access	✓	<a href="https://doi.org/10.1145/11...">https://doi.org/10.1145/11...</a>	HAL 2 be precised
25	Publication in Con...	From Structured Requirement for Cyber-Physical Systems to...	Mathilde Arnaud, Bouthein...	REFSQ		✓		✓		
26	Publication in Con...	Computational imaging for drill bit wear estimation	Salvatore Dello Iacono, Giu...	I2MTC2021		✓		✓		
27	Publication in Con...	Palmed: Throughput characterization for any architecture		PLDI 2021		✓				
28	Publication in Con...	Integer-Only Approximated MFCC for Ultra-Low Power Audi...	Marco Fariselli, Manuelle R...	AICAS 2021	yearly	✓	Green Open Access	✓	<a href="https://doi.org/10.1109/AI...">https://doi.org/10.1109/AI...</a>	<a href="https://cps4eu.eu/wp-...">https://cps4eu.eu/wp-...</a>
29	Publication in Con...	Design optimization of IoT models: structured safety and se...	Julia Rauscher, Bernhard Ba...	Business Modeling and Sof...	July 6-8, 2020; annual	✓	Green Open Access	✓	<a href="https://doi.org/10.1007/97...">https://doi.org/10.1007/97...</a>	<a href="https://opus.bibliothe...">https://opus.bibliothe...</a>
30	Publication in Con...	Adaptation of architecture analyses: an IoT safety and securi...	Julia Rauscher, Bernhard Ba...	Proceedings of the 14th Int...	11.-13. February, annual	✓	Green Open Access	✓	<a href="https://doi.org/10.5220/00...">https://doi.org/10.5220/00...</a>	<a href="https://opus.bibliothe...">https://opus.bibliothe...</a>
31	Publication in Con...	IAS: an IoT Architectural Self-adaptation Framework	Mahyar T Moghaddam, Eri...	ECSA 2020 – 14th Europea...	Sep 2020	✓	Green Open Access	✓	<a href="https://dx.doi.org/10.1007/...">https://dx.doi.org/10.1007/...</a>	<a href="https://hal.inria.fr/ha-l...">https://hal.inria.fr/ha-l...</a>
32	Publication in Con...	In-Situ Thermal Performance Monitoring of Pharma 4.0 Flo...	Kristóf, Hegedús ; Gusztáv, ...	In: Proceedings of the 26th...	October 2020	✓	No	✓	<a href="https://doi.org/10.1109%2E...">https://doi.org/10.1109%2E...</a>	<a href="https://ieeexplore.ieee...">https://ieeexplore.ieee...</a>
33	Publication in Con...	YOLO-based Panoptic Segmentation Network	Manuel Alejandro Diaz Zap...	2021 IEEE 45th Annual Co...	12-16 July 2021	✓	Green Open Access	✓		<a href="https://hal.inria.fr/ha-l...">https://hal.inria.fr/ha-l...</a>
34	Publication in Con...	A Layered Implementation of DR-BIP Supporting Run-Time ...	El-Hokayem A., Bensalem S...	Software Engineering and F...	September 14--17, 2020	✓	No	✓	<a href="https://doi.org/10.1007/97...">https://doi.org/10.1007/97...</a>	<a href="https://link.springer.c...">https://link.springer.c...</a>
35	Publication in Con...	A temporal configuration logic for dynamic reconfigurable s...	Antoine El-Hokayem, Mariu...	36th Annual ACM Symposi...	March 22-March 26, 2021	✓	No	✓	<a href="https://doi.org/10.1145/34...">https://doi.org/10.1145/34...</a>	<a href="https://dl.acm.org/d...">https://dl.acm.org/d...</a>
36	Article in Journal	On the Monitoring of Decentralized Specifications: Semanti...	Antoine El-Hokayem, Yliès ...	ACM Transactions on Softw...	January 2020	✓	No	✓	<a href="https://doi.org/10.1145/33...">https://doi.org/10.1145/33...</a>	<a href="https://arxiv.org/pdf/1...">https://arxiv.org/pdf/1...</a>
37	Article in Journal	Learning and analysis of sensors behavior in IoT systems usi...	Salim Chehida, Abdelhakim...	Software Quality Journal	18 June 2021	✓	No	✓	<a href="https://doi.org/10.1007/s1...">https://doi.org/10.1007/s1...</a>	<a href="https://link.springer.c...">https://link.springer.c...</a>
38	Publication in Con...	Synthesizing control for a system with black box environme...	Iosti, S., Peled, D., Aharon, ...	International Symposium o...	Oct 26, 2020 - Oct 30, 2020	✓	No	✓	<a href="https://doi.org/10.1007/97...">https://doi.org/10.1007/97...</a>	<a href="https://link.springer.c...">https://link.springer.c...</a>
39	Chapter in a Book	CPS Engineering: Gap analysis and perspectives	LEDINOT Emmanuel	LEIBNIZ TRANSACTIONS O...	Special Issue	✓	Gold Open Access	✓		<a href="http://arxiv.org/abs/21...">http://arxiv.org/abs/21...</a>
40	Publication in Con...	Some trends in CPS systems and underlying technologies	Cédric DEMEURE	Euromicro Conference on ...	yearly	✓	No	✓		<a href="https://www.youtube.c...">https://www.youtube.c...</a>
41	Publication in Con...	EMBEDDED FRANCE new Organization and Missions	Cendrine Barruyer, Cédric ...	EMBEDDED REAL TIME SYS...	every 2 years	✓	Green Open Access	✓	<a href="https://www.erts2020.org/i...">https://www.erts2020.org/i...</a>	<a href="https://www.erts2020...">https://www.erts2020...</a>
42	Publication in Con...	Bridging the gap between structural and behavioral models ...	Noël Hagemann, Bernhard ...	Business Modeling and Sof...	annual	✓	Green Open Access	✓		<a href="https://opus.bibliothe...">https://opus.bibliothe...</a>
43	Publication in Con...	Functional Model-Based Resource Management : an Applic...	Baptiste Boyer, Philippe Fia...	17th International Confere...	Jul 2020	✓	Green Open Access	✓	DOI:10.5220/00097699056...	<a href="http://www.icinco.org/">http://www.icinco.org/</a>
44	Publication in Con...	Distributed Smart Measurement Architecture for Industrial ...	Paolo Azzoni, Gianfranco C...	2021 IEEE 45th Annual Co...	annual	✓	No	✓	not yet	<a href="https://arxiv.org/pdf/2...">https://arxiv.org/pdf/2...</a>

47 records Sum 1391

Publications list – Airtable Screenshot

### 3. CONFERENCE PARTICIPATION & SPECIAL EVENT

The 2 tables below list the attendance to conferences and special events that promoted the activities performed in the second year of the project.

Due to the covid crisis, many conferences have been virtualized or cancelled.

Name of event	Date	Location	CPS4EU participants	Targeted audience	N. of attendees	Special remark	Dissemination activity							
							Attendance	Abstract submission	Paper submitted	Poster submitted	Lecture / PPT presentation	Brochure / Newsletter distribution	Video / DEMO	Booth/stand
<b>Intech 2020</b>	Until June 30th, 2020	Ditzingen, Germany	TRUMPF	TRUMPF customers	approx. 4000	yearly event, completely digital in 2020	X					X	X	
<b>Digital System Design 2020</b>	26-28 August 2020	Kranj, Slovenia	Embedded France	Scientific						X				
<b>Digital System Design 2020</b>	01/09/2021	Virtual	VALEO, CEA	Scientific							X			
<b>CIGRE 2021 (FORECAST)</b>	20 to 25 August 2021	Paris, France	RTE, SEF	Energy	6600									
<b>SE4ICPS 2021 (FORECAST)</b>	July 12-16 2021	On line	INRIA, RTE	Scientific										

<b>Schutz- und Leittechnik (FORECAST)</b>	February 2022	Berlin, Germany	RTE, SEF	Energy automation	600									
<b>SIDO (FORECAST)</b>	September 23, 2021	Lyon, France	RTE, JESSICA France	engineer, Project managers, CEO		X								X

Type of event	Name of event	Date	Location	CPS4EU participant	Targeted audience	N. of attendees	Special remark	Dissemination activity								
								Attendance	Abstract submission	Paper submitted	Poster submitted	Lecture / PPT presentation	Brochure / Newsletter distribution	Video / DEMO	Booth / stand	
<b>Full day annual workshop</b>	Assises de l'Embarqué - 2020. Theme to be determined	November 2020	Paris, France	Most of the French members (ANSYS, CNRS, CEA, Embedded France, GWT, INRIA, Kalray, P&R, etc.)	SMEs, project coordinator, engineers	400		X								

<b>Full day annual workshop (FORECAST)</b>	Assises de l'Embarqué - 2021. Theme to be determined	November 2021	Paris, France	Most of the French members (ANSYS, CNRS, CEA, Embedded France, GWT, INRIA, Kalray, P&R, etc.)	SMEs, project coordinator, engineers	400									X		
<b>Digital Guest Lecture</b>	Smart Factory Simulation @ TRUMPF	03 July 2020	Stuttgart, Germany	TRUMPF	Students	50									X		

With an attendance to **21 technical and professional events** to promote works done within the frame of CPS4EU, this contribution to the dissemination has been quite vivid. It complements the scientific and technical dissemination and the sum of these contributions is close to the average objective of over 34 communications per year. We can consider that we are on the tracks to reach the KPIs. Yet, COVID 19 crisis had a significant impact on conferences organisation and scientific publications.

#### 4. PRESS, WEB POSTS & OTHERS

The items and the table below list the press, web post and other dissemination actions that promoted the activities performed in the first year of the project.

CPS4EU website: <https://www.cps4eu.eu>

CPS4EU LinkedIn group: <https://www.linkedin.com/groups/12372370/>

Other references:

<https://industry4e.eu/project/cps4eu/>

<https://artemis-ia.eu/project/185-CPS4EU.html>



Partners website:

<https://www.se.com/ww/en/work/products/medium-voltage-switchgear-and-energy-automation/r-and-d-projects/cps4eu.jsp>

<https://www.vicomtech.org/en/rdi-tangible/projects/project/cyber-physical-systems-for-europe>

[https://www.emmtrix.com/news/emmtrix-technologies-receives-funding\\_cps4eu.html](https://www.emmtrix.com/news/emmtrix-technologies-receives-funding_cps4eu.html)

<https://www.iti.es/proyectosidi/cps4eu/>

<https://www.leonardocompany.com/en/news-and-stories-detail/-/detail/cps-and-industry-automation-leonardo-participates-in-the-cps4eu-project>

<https://rtechair.fr/related-joint-research-initiative/>

<https://assets.rte-france.com/prod/public/2021-04/Bilan%20R%26D%202019.pdf>

<https://www.entreprises.gouv.fr/fr/numerique/enjeux/cps-eu>

News :

<https://www.usinenouvelle.com/article/les-systemes-cyberphysiques-un-volet-cle-de-l-industrie-4-0-affirme-cedric-demeure-president-d-embedded-france.N783149>

## 5. IMPACTS

As previously mentioned, 2 KPIs were proposed in the FPP to assess the impact dissemination actions:

- KPI-4.1: More than 100 scientific publications and conference papers in the CPS4EU scientific disciplines and market segments have been released
- KPI-4.2: At least 800 SMEs from all over Europe are aware of the CPS technology developed in CPS4EU

With 55 papers and the attendance to 21 technical and professional events to promote works done within the frame of CPS4EU, the average of 34 dissemination actions for the KPI 4.1 is reached. The total number of attendees to the technical and professional events is over 1600. Even considering overlaps of audience, we are confident that the objective of KPI-4.2 would be easily reachable, yet the COVID 19 crisis may rapidly have an impact on the initial plans.