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D8.2 COMMUNITY BUILDING & DISSEMINATION REPORT V.1

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Abstract	This report summarizes the communication, dissemination and community building activities carried out by the FLUIDOS consortium since the project kickoff in September 2022 until the project's mid-term in February 2024.
Keywords	Communication, dissemination, liaisons, events, communication campaigns, KPIs

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V0.6	29/02/2024	Submission	Angelos Alexopoulos (Martel)

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Dissemination Level		
PU	Public, fully open, e.g. web	X
SEN	Sensitive, limited under the conditions of the Grant Agreement	
Classified R-UE/ EU-R	EU RESTRICTED under the Commission Decision No 2015/444	
Classified C-UE/ EU-C	EU CONFIDENTIAL under the Commission Decision No2015/ 444	
Classified S-UE/ EU-S	EU SECRET under the Commission Decision No2015/ 444	

* R: Document, report (excluding the periodic and final reports)

DEM: Demonstrator, pilot, prototype, plan designs

DEC: Websites, patents filing, press & media actions, videos, etc.

DATA: Data sets, microdata, etc

DMP: Data management plan

ETHICS: Deliverables related to ethics issues.

SECURITY: Deliverables related to security issues

OTHER: Software, technical diagram, algorithms, models, etc.

EXECUTIVE SUMMARY

About the EXECUTIVE SUMMARY:

The FLUIDOS project embarked on an ambitious journey to harness the unused processing capacity at the edge, crafting a seamless computing continuum that bridges edge devices and cloud services. Central to achieving its innovative goals was a robust communication, dissemination, and community-building strategy. This report outlines FLUIDOS's strategic efforts to establish a strong brand identity, achieve broad visibility, engage diverse stakeholders, and foster a vibrant community of developers, users, and partners. FLUIDOS effectively utilized various tools and channels to communicate its vision, disseminate its achievements and build a community around its open-source paradigm and technological advancements.

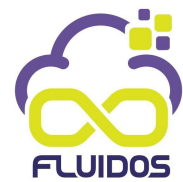
This deliverable builds on the set of Key Performance Indicators (KPIs) defined and agreed on before the project launch and deliverables D8.1 Dissemination, Communication and Community Building Strategy and the First Project Progress Report (PPR1) (as the final version was submitted to the EC on January 25th 2024).

The report at hand summarizes and evaluates the effectiveness of the communication and dissemination activities carried out by the FLUIDOS consortium since the project kickoff in September 2022 until the project's mid-term February 2024. More specifically, the document provides an overview of communication and dissemination tools and channels used by the consortium, including the project website, social media, newsletter, scientific publications, and events, among others. Additionally, the report gives an overview of the type and number of stakeholders reached by the FLUIDOS consortium through their outreach activities.

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ABBREVIATIONS

AIOTI	Alliance for the Internet of Things Innovation
DSME	Digital SME Alliance
EC	European Commission
EU	European Union
EUCEI	European Cloud Edge and IoT Initiative
GDPR	General Data Protection Regulation
IEEE	Institute of Electrical and Electronics Engineers
KPIs	Key Performance Indicators
M	Month
MetaOS	Meta Operating System
SMEs	Small and Medium sized Enterprises
OC	Open Call
TF	Task Force
WP	Work Package
Y	Year

1 INTRODUCTION

1.1 PURPOSE OF THE DOCUMENT

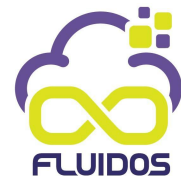
This document, prepared in the context of WP8 (Community Building and Open Calls), summarizes the communication and dissemination strategy carried out by the FLUIDOS consortium since the project kickoff in September 2022 until the project's mid-term in February 2024.

It documents efforts made to ensure broad visibility, effective promotion of project activities and achievements, and engagement with the target community to facilitate the uptake of project results.

1.2 STRUCTURE OF THE DOCUMENT

The document is structured to provide a clear overview of FLUIDOS's communication and dissemination strategies, including tools and channels used, community-building activities, an assessment of the impact, lessons learned, and conclusions drawn from the project's outreach efforts. It is structured into five main sections:

- **Introduction:** This section provides an overview of the document outlining its purpose and structure
- **Communication and Dissemination:** This section focuses on the strategies and methods FLUIDOS employed to share information about the project, engage with stakeholders, and promote project outcomes. It details the tools and channels used for communication and dissemination, including the project's visual identity, website, specific communication activities, news items, press releases, newsletters, social media presence, promotional materials, scientific publications, and events. This section aims to showcase how FLUIDOS effectively communicated its vision, progress and achievements to a wide audience.
- **Community Building:** This section explores FLUIDOS's efforts to foster a collaborative and engaged community around its project goals. It describes how the project worked so far to bring together a diverse group of stakeholders, including industry partners, researchers and end-users, through various activities and initiatives. It also highlights the project's cooperation and liaisons with related projects and initiatives to build synergies and enhance its impact within the broader technological ecosystem.
- **Impact Assessment, Lesson Learned and Recommendations:** This section provides an analysis of the effectiveness of FLUIDOS's communication, dissemination, and community-building strategies. It includes an assessment of progress against predefined KPIs, discusses lessons learned throughout the project, and offers recommendations for future initiatives. This section aims to reflect on the so far successes and challenges of FLUIDOS's outreach efforts and to share valuable insights gained.



- Conclusion: This section summarizes the key takeaways from the FLUIDOS project's communication, dissemination and community-building activities. It reflects on the overall impact of these efforts on achieving the project's objectives and on fostering a supportive and engaged community. This section concludes the report by highlighting the lasting contributions of FLUIDOS to the edge computing domain and suggesting paths forward for continued engagement and impact.

This structured approach ensures that the document comprehensively covers the breadth and depth of FLUIDOS's outreach and impact creation activities, providing a valuable resource for understanding the project's achievements and for guiding future efforts until the end-date of the project.



2 COMMUNICATION AND DISSEMINATION

As a starting point for FLUIDOS outreach activities, a comprehensive dissemination, communication, and community-building strategy (outlined in more detail in deliverable D8.1 Dissemination, Communication and Community Building Strategy) was developed at the beginning of the project to ensure the project's wide visibility among the target stakeholder groups. The strategy was meant to ensure that the following communication-related project objectives are met:

- an establishment of a distinctive and recognizable brand identity to support the project's promotional efforts,
- achieving broad visibility and raising awareness about FLUIDOS and its results,
- reaching and engaging a critical mass of relevant stakeholders to effectively showcase the project results,
- establishing liaisons with relevant initiatives.

The strategy set the overall project communication and dissemination framework and provided clear directions for all consortium members so that they could smoothly and effectively perform outreach activities on behalf of the project. Specific tools and activities developed and used throughout the project are described in the below subsections.

2.1 COMMUNICATION AND DISSEMINATION TOOLS AND CHANNELS

2.1.1 Visual Identity

One of the first tasks performed within WP8 was the development of the FLUIDOS's brand identity, encompassing a unique logo, color palette, typography and templates for deliverables and presentations so as to ensure brand consistency and recognizability across all communication materials and platforms, reinforcing the FLUIDOS project's identity in all outreach efforts.



FIGURE 1 FLUIDOS LOGO

2.1.2 Website

The FLUIDOS website was developed in the first months of the project and serves as the central information hub, featuring project vision and objectives, progress updates, consortium details and a repository of resources, publications and materials, as well as contact information to secure the project's comprehensive web presence.

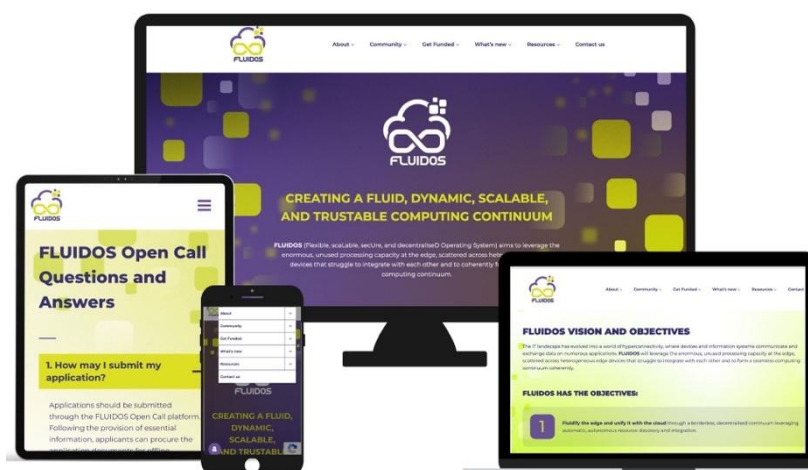


FIGURE 2: FLUIDOS WEBSITE-RESPONSIVE VIEWS

The website has been regularly updated throughout the project to provide all interested parties with up-to-date information about the progress of the project.

All the information and e-mails that are received within the framework of FLUIDOS have been protected under the General Data Protection Regulation (GDPR). FLUIDOS is only contacting people who are submitting their inquiries, responding to OC and the newsletters have been distributed only to those who have explicitly requested to receive it. Any person who has subscribed is allowed to remove their e-mail address from the list whenever they wish. The website provided information on the stored data and how they are used in alignment with the GDPR under the Privacy policy link (footer of the webpage).

As shown in Figure 3, during the first 18 months of the project's lifespan, the website is counting 6,222 visits who have generated 15,492 pageviews, 10,893 of them unique, with an average visit duration of 2min 39s.

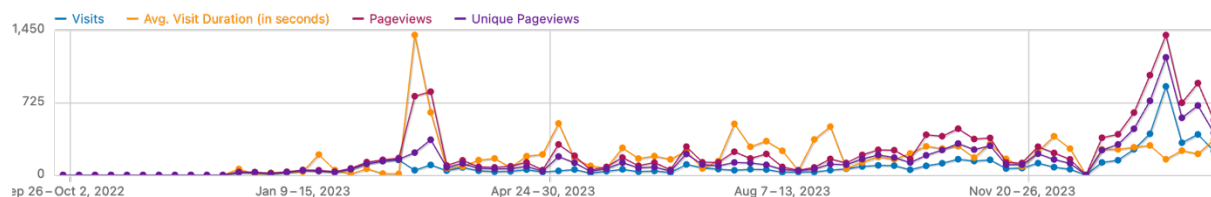


FIGURE 3: FLUIDOS WEBSITE - TRAFFIC OVERVIEW M01-M18

Pages

PAGE URL	PAGEVIEWS	UNIQUE PAGEVIEWS	BOUNCE RATE	AVG. TIME ON PAGE	EXIT RATE	AVG. PAGE LOAD TIME
/index	6,102	4,311	47%	00:00:46	64%	3.48s
fluidos-open-call	2,916	2,167	55%	00:01:42	84%	2.59s
the-consortium	718	579	52%	00:01:15	46%	1.3s
2023	637	503	52%	00:01:14	43%	2.04s
about	727	503	51%	00:01:05	34%	1.38s
2024	481	422	80%	00:00:59	81%	3.26s
news-press-release	599	365	29%	00:00:43	20%	1.2s
public-deliverables	406	313	32%	00:01:36	51%	1.85s
how-fluidos-works	325	281	50%	00:01:08	30%	1.45s
call-for-external-evaluators	376	278	44%	00:01:52	51%	2.31s
category	222	218	95%	00:00:35	93%	1.72s
connected-initiatives-projects-community	238	212	44%	00:01:02	34%	1.67s
contact	316	192	34%	00:01:08	40%	2.46s
use-cases	223	192	58%	00:01:34	43%	1.51s
presentations	225	169	62%	00:01:11	27%	1.4s
promotion-materials	290	144	45%	00:01:12	34%	2.05s
newsletter	230	141	68%	00:01:04	40%	1.7s
public-deliverables-2	181	131	28%	00:02:12	38%	1.55s
results-2	231	127	50%	00:00:43	20%	1.04s

TABLE 1: FLUIDOS PAGEVIEWS LIST

The high traffic to the homepage and open call page suggests that the primary interest lies in the funding opportunities FLUIDOS offers and on discovering general information about the project. The OC page is the one gathering most of the visits, which is the result partly of the fact that during M18 a targeted communication campaign was launched to promote the OC (see Section 2.1.3). FLUIDOS should continue to update the website, highlighting opportunities for engagement prominently on the homepage.

2.1.3 Communication campaigns

FLUIDOS launched its first targeted communication campaign to highlight a project and WP8 milestone, the 1st one of its planned OCs which was open to applicants from December 2023 to February 29th, 2024. The campaign was launched to promote the OC to the project's community and invite members of its target audience, researchers, developers, SMEs, start-ups, innovators and research institutions, to develop and integrate additional open-source functionalities with FLUIDOS, to test and validate its architecture and software and promote the development of innovative solutions. To that end, a press release, social media posts and graphics were created to maximise the visibility and reach of the OC through all the project's available communication outlets. Following the conclusion of the campaign, FLUIDOS will compile a campaign report detailing the outcomes and impacts of the initiative. This analysis will be used as a basis for the design of a second campaign that will be launched to promote the 2nd OC in August 2024.

During the whole period that the 1st OC was open for applications, there were weekly posts on LinkedIn and X, sharing information and details on the available grants and the application process.



FIGURE 4: A NEWS ITEM BANNER FOR THE 1ST OPEN CALL

To attract interest to its technological advancements and maximise community engagement, FLUIDOS effectively utilized social media, newsletters, press releases and a paid campaign on X to broaden the 1st OC's reach. The ad campaign on X consisted of two ads with the objective to increase engagement with the OC until the deadline of application submission on February 29th 2024.



FIGURE 5: FLUIDOS CARD FOR THE PAID CAMPAIGN ON X

2.1.4 News items and Press Releases

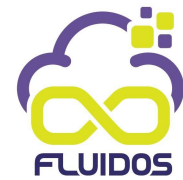
The FLUIDOS consortium has been actively sharing project updates, achievements, and insights through news items disseminated via the project website and promoted further via social media, periodic newsletters and press releases, ensuring stakeholders stay informed of the project's progress, achievements and participation in major events and ensuring ongoing visibility and engagement from the target audiences. From M01 to M18 the project published 16 news items on various relevant subjects, ranging from updates on the work conducted and technological advancements, papers published by the FLUIDOS consortium and events attended by project partners. In addition, two press releases have been published, one marking the start of the project and one on M17 about the 1st OC.

2.1.5 Newsletters

Periodic newsletters of the project have been providing curated content on project developments and outputs, upcoming events, and opportunities for collaboration, as the OC. The newsletters have been distributed to a growing list of subscribers interested in FLUIDOS's activities.

The design of each newsletter was aligned with the FLUIDOS brand identity and fully responsive to ensure its full readability on any device. All consortium members provided relevant information to ensure that the content of the newsletter was engaging, accurate, and timely. All issued newsletters have been uploaded on the FLUIDOS website, under the dedicated newsletter section.

A mailing list based on subscription has been created, giving the possibility to share the newsletter via a mass mailing functionality. Interested parties are able to subscribe to the newsletter directly on the project website. Since the beginning of the project, 3 newsletters, presented in Figure 6, have been issued and distributed to 44 direct subscribers. Once



published, the newsletters were also promoted on the FLUIDOS social media channels so that they could reach a broader audience. All the newsletters are available under the respective section of the website (<https://www.fluidos.eu/newsletter/>).





FIGURE 6: THE 3 FLUIDOS NEWSLETTERS

2.1.6 Social Media presence

During the first 18 months of the project's lifespan, FLUIDOS has leveraged social media platforms such as X/Twitter, LinkedIn and YouTube to engage with a wider audience. These channels facilitated information flow on edge computing challenges and solutions, showcased FLUIDOS's contributions to the field and connected the project with both technical and lay communities interested in its outcomes. All the information was shared with the aim to promote project outputs and activities, as well as engage with a broader audience, and foster community discussions around project themes. Below is an overview of all social media channels used by FLUIDOS.

X/Twitter

The FLUIDOS X (formerly known as Twitter) account has been active since June 2022 to promote the project and share relevant news and events. It helped the consortium to establish meaningful connections with an active and relevant audience, including academics, researchers, developers and the general public. By following relevant users, FLUIDOS gained access to relevant content and updates and continues acquiring more followers. By M18, the project has posted 139 updates and has gained 199 followers.



FIGURE 7: FLUIDOS X (TWITTER) ACCOUNT

LinkedIn

FLUIDOS established its LinkedIn account in August 2023 to supplement the website and drive traffic to it. The profile allowed the consortium to promote the project to a broader audience, including businesses, universities, SMEs and research centers. To create positive

visibility exchanges, the project partners' LinkedIn pages are being mentioned and tagged accordingly. By M18, FLUIDOS has 187 followers.

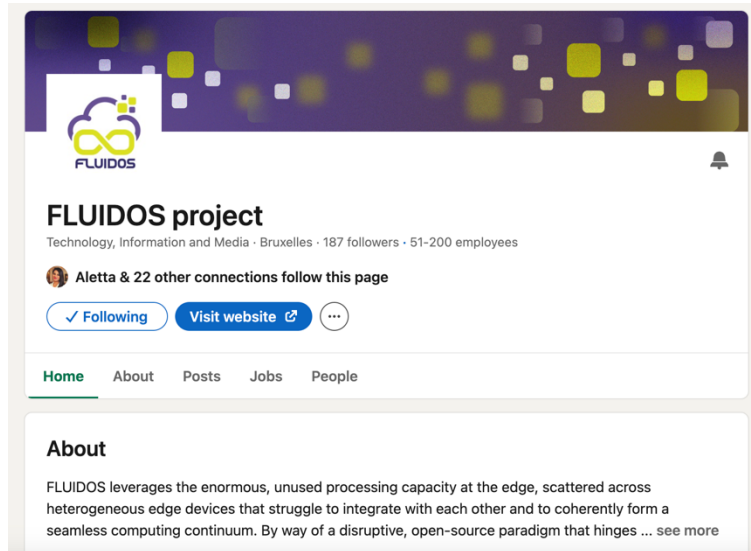


FIGURE 8: FLUIDOS LINKEDIN ACCOUNT

YouTube

FLUIDOS created its YouTube channel in October 2023 to disseminate the project vision, concepts and objectives, to demonstrate the use-cases and to provide visibility to the project partners' work. During the first 18 months of the project, FLUIDOS has published 3 project-related videos, which have generated 104 views.

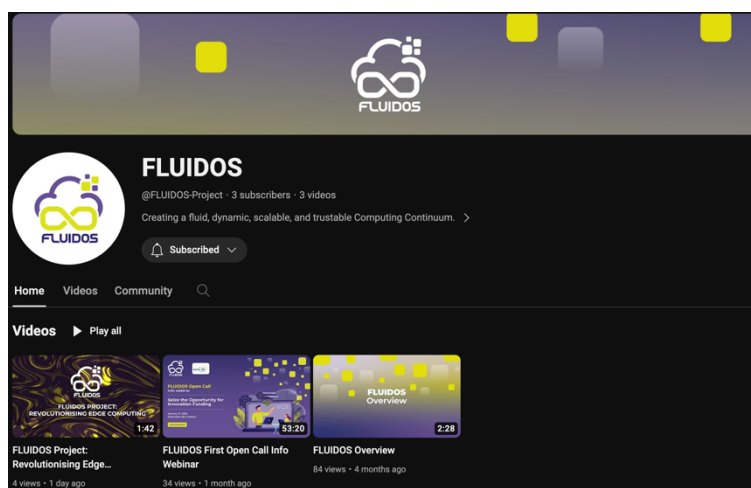


FIGURE 9: FLUIDOS YOUTUBE ACCOUNT

2.1.7 Promotional materials

An online kit of promotional materials, including flyer, logo and roll up, has been created to visually communicate FLUIDOS's mission, objectives, and achievements. These materials supported FLUIDOS's presence at conferences and events, enabling the project to capture the attention of potential collaborators and users. The kit material is available under the respective category on the website, at <https://www.FLUIDOS.eu/promotion-materials/>. During Y2, this kit will be enhanced with press releases, videos and publications in press and additional promotional materials, reflecting the project progress and designed to communicate the project outcomes.



FIGURE 10: FLUIDOS FLYER OUTSIDE AND INSIDE

EUCEI brochure

This brochure offers a brief overview of the first open call requirements of the 6 MetaOS projects (aerOS, FLUIDOS, ICOS, NebulOuS, NEMO, and NEPHELE). It captures essential information about the OC process, requirements, and a brief summary of each project's architecture and key use cases.

Available at Zenodo: <https://zenodo.org/records/8405319>

2.1.8 Videos

Introductory project video

In an effort to bring the project goals and activities closer to the general public, FLUIDOS produced an initial video explaining its vision and objectives. In the video, the project coordinator is providing an overview of the project, then proceeds in describing the expected applications in the industry, presenting the consortium and giving some information on the OCs. The final part of the video provides a visual of the consortium members and an acknowledgement of the EU funding.

The first video is available in the link: <https://www.youtube.com/watch?v=jlbiUdLk21Y>

Video on the 1st OC Info Webinar

The second video of the project was produced by the European DIGITAL SME Alliance to provide detailed information on the 1st OC for funding. The video encapsulated the webinar that took place on the 17th of January, 2024, which provided details on timeline, process and a Q&A section. The webinar video was divided in 6 chapters, so as to facilitate the viewers in easily locating the relevant information.

The second video is available in the link: <https://www.youtube.com/watch?v=xNx0CKaad0Y>

Presentation video to invite collaboration

The third FLUIDOS video was produced in view of the ECS Brokerage Event, where the project was showcased by an attending partner. This video emphasizes the key elements of the project, introduces its use cases, and extends an invitation for collaboration, highlighting the opportunities available for interested parties.

The third video is available in the link: <https://www.youtube.com/watch?v=3fEUTFkab5Q>

2.1.9 Scientific Publications

The FLUIDOS consortium was highly committed to bringing research results closer to the scientific community and the general public and adhering to Open Access guidelines to ensure widespread accessibility. In line with these guidelines, all the scientific publications emerging from the FLUIDOS project are freely available to interested parties.

To date, 13 papers developed as part of the FLUIDOS project have been published. Several others are awaiting publication. The full list of published papers (in chronological order) is available in the project's page on Zenodo (<https://zenodo.org/communities/fluidos?q=&l=list&p=1&s=10&sort=newest>), indicated in

the below Table and on the project website (<https://www.fluidos.eu/public-deliverables-2/>). Based on the scientific papers, in the following months, there are going to be articles written and promoted through the project's website, on social media and via the newsletter to reach a broader audience.

Title	Authors	Title of journal/equivalent	Date
Serverless computing: A security perspective	Eduard Marin, Diego Perino and Roberto di Pietro	Journal of Cloud Computing	October 2022
A multi-layer guided reinforcement learning-based tasks offloading in edge computing	Alberto Robles-Enciso; Antonio F. Skarmeta	Computer Networks	November 2022
Locality-aware deployment of application microservices for multi-domain fog computing	Francescomaria Faticanti, Marco Savi, Francesco De Pellegrini, Domenico Siracusa	Computer Communications	April 2023
Assessing the Potential Energy Savings of a Fluidified Infrastructure	Stefano Galantino; Fulvio Risso; Vlad C. Coroamă; Antonio Manzalini	Computer	May 2023
By-default Security Orchestration on distributed Edge/Cloud Computing Framework	José Manuel Bernabé Murcia, José Francisco Pérez Zarcá, Alejandro Molina Zarcá, Antonio Skármeta	2023 IEEE 9th International Conference on Network Softwarization (NetSoft)	July 2023
Enhancing Network Intrusion Detection: An Online Methodology for Performance Analysis	Simone Magnani, Roberto Doriguzzi-Corin, Domenico Siracusa	2023 IEEE 9th International Conference on Network Softwarization (NetSoft)	July 2023

Computing Without Borders: The Way Towards Liquid Computing	Marco Iorio; Fulvio Risso; Alex Palesandro; Leonardo Camiciotti; Antonio Manzalini	IEEE Transactions on Cloud Computing	July 2023
Is the Computing Continuum Already Here?	Jacopo Marino; Fulvio Risso	arXiv.org	September 2023
Enabling Compute and Data Sovereignty with Infrastructure-Level Data Spaces	Jacopo Marino; Leonardo Camiciotti; Francesco Cheinasso; Alessandro Olivero; Fulvio Risso	eSAAM '23	October 2023
Pruning Federated Learning Models for Anomaly Detection in Resource-Constrained Environments	Simone Magnani, Stefano Braghin, Ambrish Rawat, Roberto Doriguzzi-Corin, Mark Purcell, Domenico Siracusa	2023 IEEE International Conference on Big Data (BigData)	December 2023
Multi-agent reinforcement learning-based energy orchestrator for cyber-physical systems	Alberto Robles-Enciso; Ricardo Robles-Enciso; Antonio F. Skarmeta	ALGO CLOUD 2023	December 2023
FLAD: Adaptive Federated Learning for DDoS Attack Detection	Roberto Doriguzzi-Corin, Domenico Siracusa	Computers & Security	February 2024

TABLE 2: LIST OF PUBLICATIONS

2.2 EVENTS

Event attendance has been an important promotional tool and networking opportunity for FLUIDOS. Participation in key industry and academic events allowed FLUIDOS to showcase its innovations, foster discussions on edge computing trends, and engage with potential adopters and collaborators. Some of the events attended, hosted and co-organised by the consortium have been listed below.

2.2.1 Events attended by the FLUIDOS consortium

3rd international conference on Embedded & Distributed Systems, EDiS'2022

(Oran, Algeria, 2-3 November 2022)

In this research activity, the status and the perspective of the creation of the cloud continuum, and the role of the FLUIDOS project was presented. Dr. Fulvio Risso from Politecnico di Torino gave a keynote on "Creating an Edge-to-Cloud Computing Continuum: Status and Perspective". The conference was attended by many members of the research community.

<https://www.univ-oran1.dz/edis2022/keynote-speakers.html>

Cloud-Edge Continuum Resource Management and Application Steering

(10 November 2022, Online)

The project's consortium member Telefonica Research represented FLUIDOS by delivering a research talk on the paper "Serverless computing: A security perspective" during a workshop that reached research communities, industry and business partners.

<https://www.charity-project.eu/en/webinars/charity-project-webinar-2-cloud-edge-continuum-resource-management-and-application-steering>

Securing the Future: Challenges ahead of XR Services and Serverless Computing

(20 April 2023, Online)

The meeting was organised by the EU projects ACCORDION and CHARITY. Diego Perino from Telefonica Research represented FLUIDOS by delivering a research talk on the paper "Serverless computing: A security perspective" during a workshop.

<https://www.charity-project.eu/en/webinars/charity-project-webinar-5-securing-the-future-challenges-ahead-of-xr-services-and-serverless-computing>

Concertation and Consultation on Computing Continuum: From Cloud to Edge to IoT

(Brussels, 10-11 May 2023)

The *Concertation and Consultation on Computing Continuum: From Cloud to Edge to IoT* meeting is a 2-day physical event organised within the context of the European, Cloud, Edge and IoT Continuum initiative by the OpenContinuum consortium in close collaboration with the UNLOCK-CEI and SW Forum projects and guided by the European Commission DG CNECT E.2 and E.4 Units.

Martel Innovate was the event moderator, while also gave an introduction to EUCloudEdgeIoT.eu. Along with Politecnico di Torino, they presented the uniqueness of the FLUIDOS approach in the creation of the edge-to-cloud continuum.

<https://www.fluidos.eu/2023/05/29/fluidos-showcases-value-in-seamless-computing-continuum-at-concertation-and-consultation-event-in-brussels/>

AIOTI Exploring IoT Open Call Projects

(7 June 2023, Webinar)

The EUCEI hosted the webinar aimed to shed light on the six Meta OS projects, including FLUIDOS, which are focused on building cutting-edge net operating systems. FLUIDOS garnered significant attention during the webinar. Alessio Sacco, a key spokesperson for the FLUIDOS project, provided insights into the OCs.

<https://www.fluidos.eu/2023/06/16/fluidos-project-take-part-in-aioti-webinar-exploring-iot-open-call-projects/>

IEEE NetSoft 2023 – 5th International Workshop on Cyber-Security Threats, Trust and Privacy Management in Emerging Software-defined and Virtualized Infrastructures

(Madrid, 19 June 2023)

The conference was co-hosted at the 9th IEEE International Conference on Network Softwarization (NetSoft2023) *that was held from June 19 to June 23, 2023 in Madrid, Spain*. The SecSoft workshop was a joint initiative from the EU Cyber-Security projects: FLUIDOS, PALANTIR, SIFIS-Home, ELECTRON, RIGOUROUS, and CATRIN. The project partners Foundation Bruno Kessler and Politecnico di Torino participated in the organisation of the workshop and during the event, the project partner University of Murcia presented the paper *By-default Security Orchestration on distributed Edge/Cloud Computing Framework*. The event was attended by members of the research community and innovators.

<https://www.secsoft-workshop.org/committee.html>

Conference on Concurrency and Distributed Systems (JCSD)

(Lisbon, 20 June 2023)

Eduard Marin from the FLUIDOS consortium partner Telefonica Research, gave a keynote on the evolution of cloud computing from a security perspective. His involvement in such events highlights his expertise in network and security technologies, especially in relation to the security challenges and advancements in cloud computing paradigms. The target audience reached included researchers, industry and business partners.

22nd IEEE International Symposium on Parallel and Distributed Computing

(Bucharest, 10-12 July 2023)

As one of the keynote speakers, Antonio Skarmeta, from University of Murcia, represented the FLUIDOS project at the symposium, presenting its vision for secure and intelligent 5G and beyond.

<https://www.fluidos.eu/2023/07/27/fluidos-presents-vision-for-secure-and-intelligent-5g-and-beyond-networks-at-ieee-symposium-2023/>

Cloud-Edge-IoT Innovations in Manufacturing: Unveiling Market Insights and Use Cases

(10 July 2023, Online)

This webinar provided valuable information and knowledge to navigate the evolving manufacturing landscape and unlock the true potential of the Cloud-Edge-IoT continuum in this sector. The event was co-organised with the other MetaOS projects of the EUCEI community. FLUIDOS provided insights for the manufacturing sector, with a specific focus on cloud-edge-IoT use cases.

<https://eucloudedgeiot.eu/event/cloud-edge-iot-innovations-in-manufacturing-unveiling-market-insights-and-use-cases/>

Capitalising on Cloud-Edge-IoT: Building your next product, finding your next market opportunity

(20 September 2023, Online)

This event included information on the funding opportunities through open calls organised by the meta-OS projects. Costanza Pestarino from DSME presented the FLUIDOS opportunities for funding at a dedicated section.

<https://eucloudedgeiot.eu/event/webinar-capitalising-cei-open-calls/>

Nexus Forum 2023

(Brussels, 5-6 October 2023)

This is a unique event aimed at exploring technological synergies between the European Alliance for Industrial Data, Edge and Cloud, the EU companies and Member States involved in the IPCEI on Cloud Infrastructure & Services, and the community of research and innovation projects developed under the Horizon Europe programme. It featured a range of sessions and a panel discussion. Amongst the keynote speakers were high-profile figures in digital and AI innovation, highlighting Europe's resilience and digital sovereignty efforts. As members of the EUCloudEdgeIoT community, FLUIDOS was represented by DSME, that shared information on the project's available opportunities for funding.

<https://opennebula.io/innovation/nexusforum2023/>

EBDVF 2023

(Valencia, 25 October 2023)

EBDVF is a flagship industry event that gathers industry professionals, business developers, researchers, and policymakers from across Europe and beyond. The event focused on advancing policy actions and industrial and research activities in the areas of Data and AI, aiming to foster collaboration, share knowledge, and celebrate achievements within the European data-driven AI research and innovation community. During the event, DSME had

the opportunity to present FLUIDOS, share insights, network with industry professionals and attract interest to the project's OCs.

<https://www.bdva.eu/european-big-data-value-forum-ebdvf-2023>

2023 IoT Forum 2023

(Sao Paolo, 25-27 October 2023)

This event combined the Latin America and Brazilian Congress on IoT (LABCIoT) and the Symposium on the Internet of Things (SIoT), focusing on IoT business and research advancements and featuring keynotes from industry and academia leaders, including Antonio Skarmeta from the University of Murcia, a consortium member of FLUIDOS. Antonio's keynote was titled "IoT in the Era of the Continuum Computing: Challenges and Opportunities" and the audience it reached included industry professionals, entrepreneurs, researchers, and academics.

<https://iotbrasil.org.br/congresso/2023/>

IEEE International Conference on Cloud Networking

(New York, 1–3 November 2023)

The event is designed for researchers, industry experts and cloud-networking professionals. It provides a platform for presenting research and networking with peers, targeting an audience deeply interested in cloud networking innovations, protocols, software platforms, and AI-based orchestration techniques. Dr. Antonio Skarmeta, Full Professor, Department of Information and Communication Engineering from University of Murcia, represented FLUIDOS at the event, and gave a keynote titled "Secure and distributed computing in the Continuum".

<https://cloudnet2023.ieee-cloudnet.org/workshop-intelligent-cloud-continuum-b5g-services>

IEEE Future Networks World Forum 2023

(Montreal, 13-15 November 2023)

Dr. Antonio Skarmeta, Full Professor, Department of Information and Communication Engineering from University of Murcia, presented the FLUIDOS concept and vision. He gave a keynote speech at Symposium on Security for 5G and Future Networks and, during the conference, FLUIDOS was also mentioned in the session on "Dialogues between B5G and Vertical Domains: Working Cooperatively for Sustainability."

<https://www.fluidos.eu/2023/05/04/networks-world-forum-in-montreal/>

Horizon4Poland 2023

(Warsaw, 21-22 November 2023)

This event aims to connect companies, R&D institutions and other entities interested in participating in the Horizon Europe Programme, facilitating networking and partnership opportunities in the field of innovation. The main theme for the event was "Partnership is the new leadership" and DSME, as FLUIDOS representative, spread the work about the available OCs and the opportunities for funding and collaboration with the project.

<https://ncp4industry.eu/horizon4poland23-21-22-november-2023/>

AIOTI Innovative SME showcase webinar

(6 November 2023, Online)

The webinar focused on presenting IoT, cloud, and edge computing funding opportunities for SMEs through various European Commission, CEI, and NGI open calls. It also introduced European project open calls like the ones of fellow EU MetaOS projects AEROS, ICOS, NebulOuS and TARGET-X. The event included showcases, discussions on open call opportunities, and networking sessions for attendees. DSME presented the OCs available in the FLUIDOS context and held relevant discussions.

<https://aioti.eu/aioti-webinar-innovative-sme-showcase/>

Next Generation IoT insights

(8 February 2024, Online)

Hosted by HiPEAC, with presentations from five RIAs (ASSIST-IoT project, iNGENIOUS IoT, IntelLLIoT, TERMINET and VEDLLIoT), this webinar facilitated FLUIDOS's community building by immersing it in a collaborative discourse on Next-Generation IoT, alongside over 50 attendees. This event, spotlighting innovations and addressing the cloud-edge-IoT sector's challenges, enabled FLUIDOS to align with leading projects and stakeholders, enriching its ecosystem with shared knowledge and fostering partnerships critical for advancing IoT solutions and addressing AI's demand at the edge.

<https://eucloudedgeiot.eu/first-eucei-rias-showcase-webinar/>

ECS Brokerage Event 2024

(Brussels, 20-21 February 2024)

Fulvio Risso from partner Politecnico di Torino accepted an award on behalf of the FLUIDOS consortium, as the project was one of the winners of the RIAs Challenge 2024 organised by the Inside Industry Association in the context of the European initiative EUCEI EUCloudEdgeIoT. During the event, FLUIDOS was showcased, presented its value proposition, connected with members of the industry and discussed opportunities for collaboration and invited participation interest to the 1st OC. Soon after the event, the winning projects are going to be featured on Inside Magazine as part of their award.

<https://eucloudedgeiot.eu/2024-rias-challenge-unveils-winners/>

2.2.2 Events hosted and/or co-organised by the FLUIDOS consortium

Workshop "Serverless computing: A security perspective"

(WoSCx2, 22 June 2023)

The project's consortium member Telefonica Research represented FLUIDOS by delivering a research talk on the publication "Serverless computing: A security perspective" during a workshop that reached research communities, industry and business partners.

<https://www.serverlesscomputing.org/workshops/>

Info Webinar on FLUIDOS Open Calls

(17 January 2024, Online)

This informative session was designed to unveil details about the substantial funding opportunities within FLUIDOS, through its OCs. DSME organised the webinar and together with Fulvio Risso from Politecnico di Torino, they provided detailed information on the OCs, step to step guidelines for the application process and insights on the work that the prospective winners will be part of.

<https://www.fluidos.eu/2024/01/16/fluidos-open-call-information-webinar-seize-the-opportunity-for-innovation-funding/>

DSME Coordination coordination meeting

(25t January 2024, Online)

The DSME Coordination meeting is an internal meeting where DSME members and club members are updated with all the activities ongoing or upcoming. On the reported date, members discovered more about the FLUIDOS funding opportunities, and information on the two available grants of the OC was diffused.

Cloud-Edge-IoT Innovations in Agriculture and Crisis Management: Exploring Data Spaces, Value Chains, and Practical Applications

(20 February 2024, Online).

The webinar brought together an extensive line-up of industry and CEI experts. Andy Edmonds from Terraview gave a presentation titled "Smart Viticulture" and Digital SME Alliance presented the project's OCs. The event was attended by researchers, innovators and members of the EUCloudEdgeIoT community.

<https://eucloudedgeiot.eu/event/eucei-event-agriculture-crisis-management/>

The FLUIDOS consortium's participation in this wide range of industry and academic events highlights its active role in developing innovative technologies and helping shape the future of edge computing. The main takeaways from these events include:

- Promotion of research and innovation: FLUIDOS showcased its innovative approaches towards creating a seamless edge-to-cloud computing continuum at international conferences and webinars. This helped in promoting the project's vision but also in highlighting the consortium's contributions to advancing the field.
- Networking and collaboration: By participating in the aforementioned events, FLUIDOS engaged with the research community, industry professionals, policymakers, and potential adopters and collaborators. This networking has been crucial for fostering discussions, sharing knowledge, and exploring opportunities for collaboration, especially through promoting the upcoming OCs.
- Keynote speeches and presentations: Members of the FLUIDOS consortium, delivered keynote speeches and presentations at several prestigious events, demonstrating the contribution of FLUIDOS towards addressing the challenges, opportunities, and perspectives of edge-to-cloud computing.
- Workshop organization and participation: FLUIDOS was involved in organizing and participating in workshops, such as the SecSoft workshop at IEEE NetSoft 2023 and the workshop on "Serverless computing: A security perspective." These workshops allowed FLUIDOS to delve deeper into specific topics, engaging with experts and relevant stakeholders.
- Insights into specific sectors: Events like the "Cloud-Edge-IoT Innovations in Manufacturing" webinar provided FLUIDOS an opportunity to share insights specific to the manufacturing sector, showcasing use cases and unlocking the potential of the Cloud-Edge-IoT continuum in this area.
- Exploration of technological synergies: The Nexus Forum 2023 and other similar events enabled FLUIDOS to explore technological synergies, mainly by informing on the opportunities for funding to other initiatives.
- Awards and recognition: The ECS Brokerage Event 2024 highlighted the recognition of FLUIDOS's contributions to the field, where Fulvio Risso accepted an award on behalf of the consortium. Such recognitions not only validate the project's impact but also enhance its visibility within the industry and academic communities.
- Funding opportunities: Events like the "Capitalising on Cloud-Edge-IoT" webinar and the AIOTI Innovative SME showcase webinar provided platforms for discussing funding opportunities, open calls, and encouraging participation from the broader community.

3 COMMUNITY BUILDING

FLUIDOS actively engaged with key stakeholders and reached the target audiences, which had been identified and mapped in the “Dissemination, Communication and Community Building Strategy” of the project. These included SMEs, researchers, policymakers, standardization bodies, industry, start-ups, policy makers, open-source communities and other MetaOS projects. The project's community-building strategy has been multifaceted, involving participation in industry-driven events, utilization of demonstrators, launching OCs and hosting collaborative workshops/webinars. Each stakeholder group was engaged through participation or organisation of selected initiatives, highlighted in section 2.2, that were leveraged to cultivate meaningful partnerships and networks, setting a foundation for continuous community growth.

SMEs and Startups

Leveraging OCs and showcasing innovative demonstrators at industry events have been pivotal in engaging SMEs and startups. The project also co-organised workshops and webinars specifically tailored to these groups (mentioned below and also section 2.2), offering them valuable insights into potential applications of FLUIDOS's research in their operations.

Researchers and Academia

Engagement with this target audience was achieved through FLUIDOS's active participation in scientific forums, such as the European Big Data Value Forum (EBDVF) and SecSoft, and through joint research initiatives with other MetaOS projects (mentioned below). These platforms allow for the exchange of cutting-edge research and foster collaborations between FLUIDOS and academic institutions, amongst other groups. Future plans include co-hosting more interdisciplinary workshops and seminars, promoting joint publications, and further integrating academic insights into project developments (see 4.2).

Policymakers and Standardization Bodies

By participating in policy-focused forums and events, such as the Concertation and Consultation on Computing Continuum (see section 2.2), where FLUIDOS highlighted its innovative contributions to the computing continuum landscape. Additionally, at the Horizon4Poland 2023 FLUIDOS capitalized on the networking opportunity with policymakers engaged with the Horizon Europe Programme.

Industry Leaders and Open-Source Communities

By actively participating in industry-driven events, alongside other MetaOS projects, contributing to and engaging with open-source communities, FLUIDOS has promoted the adoption of open-source technologies, and fostered discussions on innovation and digital transformation. The Nexus Forum 2023, was a good opportunity to interact with industry leaders and the open-source community. Similarly, the EBDVF 2023 brought together business developers, researchers, and policymakers, allowing FLUIDOS to share its outcomes and engage with key industry stakeholders, promoting the project's open-source

contributions. The AIOTI Innovative SME showcase webinar further allowed FLUIDOS to reach out to SMEs and open-source enthusiasts, presenting funding opportunities and inviting collaborations that bolster innovation in cloud-edge-IoT technologies.

Engaging with Other MetaOS Projects and EUCEI Initiative Participation

As part of the EUCEI initiative, FLUIDOS has been involved with a wide network of research projects, developers, business users, suppliers and potential adopters of its technological paradigm. Participating in the EUCEI TFs (<https://eucloudedgeiot.eu/task-forces/>) has given the project opportunities to frequently interact online or meet face-to-face, exchange knowledge and discuss potential collaboration with several different projects involved in the Edge to Cloud continuum Open Source and MetaOS context. For example, as part of TF2 and TF3, FLUIDOS came together with the other five MetaOS projects (aerOS, ICOS, NebulOus, NEMO, NEPHELE) in Toulouse on February 2023 (<https://eucloudedgeiot.eu/open-source-task-force-meta-os-projects/>), aiming to address the need to define a common open-source stacks for the meta operating systems defined in all the six projects involved in the TFs. Also, amidst the works of TF3, FLUIDOS participated in the TF3 workshop on April 2023 (see 2.2) , coming together with MetaOS cluster representatives and one from the TRANSACT project.

Participation in the Ecosystem Engagement TF, TF4, has been crucial for the project to successfully engage with startups and SMEs within the EUCEI initiative and share resources related to the OCs. In this context, the EUCEI brochure was produced (see 2.1.7) and joint participation in events is organised, such as the FOSS Backstage 2024 (see 4.2), that will facilitate access to partnerships with commercial entities.

The participation of FLUIDOS in TF5 has been pivotal towards enhancing its community-building efforts by focusing on key areas such as demand market adoption, drivers and challenges, and commercialization support. This TF's objectives directly contribute to FLUIDOS's strategic engagement with its ecosystem by providing insights into CEI demand market trends and facilitating the alignment between supply and demand. The creation of the Collaboration Map (<https://kumu.io/zuzkakusikova/collaboration-map#metaos-collaboration-map>) and the Catalogue of Use Cases (<https://zenodo.org/records/10390848>), as outcomes of TF5, serve as significant resources for FLUIDOS. These tools not only foster a deeper understanding of the project landscape, user-centered impact, and technical components but also highlight collaboration and innovation opportunities within and beyond the FLUIDOS community. By leveraging these resources, FLUIDOS is better positioned to navigate sector-specific needs and requirements and better position to enhance the commercial exploitation of its technology and strengthen the connections within its ecosystem.

Within Task Force 1, the consortium has been actively engaging with various organizations and alliances, strategically sharing and promoting its achievements and participating in collaborative activities. This includes involvement in initiatives like the 2024 EUCEI RIAs Challenge (see section 2.2).



FIGURE 11: FLUIDOS AWARDED WINNER OF THE 2024 RIAS CHALLENGE

FLUIDOS further engaged and collaborated with the EUCEI as part of TF6 and the six MetaOS projects; FLUIDOS and the other projects co-hosted webinars and participated in events that enriched stakeholder engagements and strengthened the MetaOS ecosystem, as was the “Concentration and Consultation Meeting on Computing Continuum” (see section 2.2). Through this collaborative engagement, FLUIDOS contributed to the collective knowledge pool of the initiative, helping to enrich the broader ecosystem of projects within the EUCEI, fostering a dynamic exchange of expertise in the fields of cloud edge computing and IoT. Another such instance was the “Cloud-Edge-IoT Innovations in Agriculture and Crisis Management: Exploring Data Spaces, Value Chains, and Practical Applications” webinar (see section 2.2), which enhanced FLUIDOS’s community building within the agriculture sector. This event enabled FLUIDOS to immerse in sector-specific discussions, showcasing its smart viticulture solutions. Participation in such a focused dialogue broadened FLUIDOS’s network with industry experts and stakeholders and underscored its commitment to advancing agricultural innovation through technology, fostering meaningful collaborations and knowledge exchange.



FIGURE 12: SOCIAL MEDIA BANNER OF THE "CLOUD-EDGE-IOT INNOVATIONS IN AGRICULTURE AND CRISIS MANAGEMENT" WEBINAR

Looking ahead, FLUIDOS plans to intensify these collaborative efforts, hosting more joint events and initiatives (see section 4.2) to foster a robust MetaOS community.

Lastly, the strategic use of social media has amplified FLUIDOS's reach, fostering open and ongoing interactions with the community, who plays a pivotal role in disseminating updates from all projects and partners, nurturing a vibrant communication flow between internal and external audiences (Figure 13). Regular updates through newsletters and social media posts have kept the community informed and engaged, promoting active interactions with and within the FLUIDOS ecosystem.

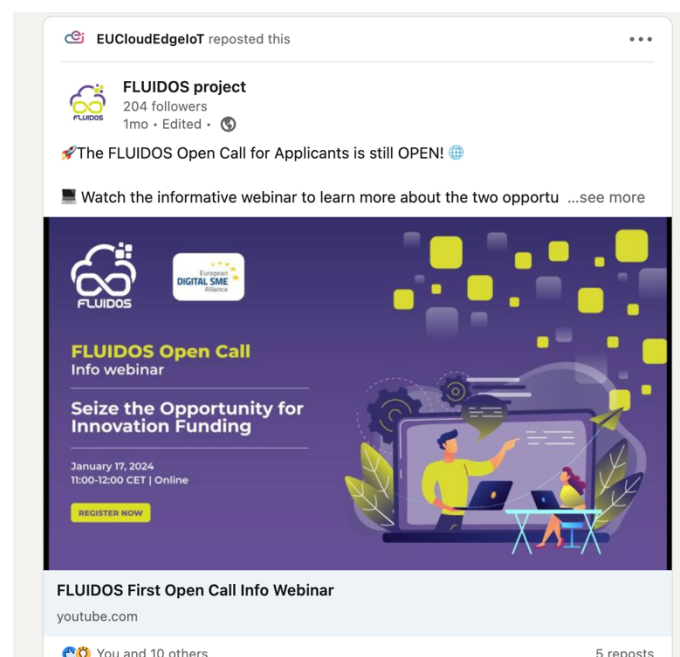


FIGURE 13: EUCEI SHARING FLUIDOS OC ON LINKEDIN

4 IMPACT ASSESSMENT, LESSONS LEARNED AND RECOMMENDATIONS

4.1 PROGRESS TRACKING AGAINST KPIS

The communication and dissemination strategy has been monitored since the outset of the project. A set of KPIs was established prior to the project's launch to measure the impact of the communication efforts and facilitate a precise evaluation of the communication and dissemination activities (see Table 2). The evaluation has been carried out on a regular basis to ensure that KPIs are being met. Although we are in good track with reaching the targets that were set during the planning stages of the project, there is an area of improvement, notably in our newsletter issuance. The initial target of releasing one newsletter every four months has not been fully met, with only three newsletters distributed to date. This shortfall underscores a need for enhancing our communication efforts to ensure consistent and engaging updates to our stakeholders. To address this, we're ramping up the frequency of newflashes distributed to our audience for the remainder of the project, while also adhering to our established newsletter distribution schedule.

Measures	Indicators	Target at M36	Source and methodology	Target at M18
Project Website	N. of unique visitors to the website (average per year)	> 5000	News, Publications, Videos, Newsletters, Deliverables, Investment, barriers and risks, opportunities and growth strategy.	6,222
Social Networks	N. of followers Twitter, LinkedIn	> 500 > 150	Keeping profiles on such networks active via regular posting and monitoring.	199 187
Press Releases / publication in press	N. of press releases issued to specialized and general media channels at key project milestones	> 10	A press/media kit will be developed containing detailed press releases, videos, publishable images, flyers.	2
Publications	N. of peer-reviewed publications in journals, conferences and workshops	>10	Articles and papers presented and published in high-quality venues.	12

e-Newsletter	N. of newsletters (published every 4 months)	8	Recording of subscribers to the electronic newsletter	3
Videos	N. of videos published on the YouTube channel and average number of views	>10 (80)	Introduction, informative and educational videos to support awareness creation and stakeholders' engagement	3
Workshops, events, webinars	Number	21	Attendance proof, presented material, photos, animation of social media channels, events' reports depending on scope and co-location.	5
	Average number of participants per workshop	20 to 40		30
Participation to events and presentations	Number of external events partners attended to promote the project, including scientific conferences, and number of demos and or presentations	>8	Attendance proof, presented material, photos, animation of social media channels, events' reports	18

TABLE 3: PROGRESS TRACKING AGAINST KPIS

4.2 NEXT STEPS

The FLUIDOS Dissemination, Communication and Community Building Strategy, defined in D8.1 *Dissemination, Communication and Community Building Strategy* will be continued in the second half of the project, evolving around the activities listed below.

4.2.1 Project website and social media channels

FLUIDOS is committed to expanding its community and raising project awareness via the established communication and its social media channels, including but not limited to: Twitter/X, LinkedIn, Facebook, and YouTube. To keep the community well-informed about the project's activities and outcomes, FLUIDOS will continue to publicly disseminate key findings and updates. This dissemination will be carried out through the publication of news items, press releases, and posts on social media, in addition to distributing the project's newsletter and issuing timely newflashes.

4.2.2 Planned events

While Y1 FLUIDOS focused mostly on providing technology, during Y2 its focus will move towards engaging with the research community and the industry. A robust start was done during this direction with the consortium's active participation in events, with the **ECS Brokerage** event being the 1st of 2024 and four more are coming up in the months after that:

The Intellectual Property and Licences in the Context of European Projects webinar on March 1st will be organised by the Eclipse Foundation and FLUIDOS will be giving an introduction to the EUCEI initiative. Immediately after, on March 4 & 5, the sixth edition of **FOSS Backstage** will bring together research and innovation projects in the CEI Computing Continuum, companies and businesses experts to discuss best practices and visions to improve free and open source software development. There, FLUIDOS will share knowledge and network with industry experts. The **Data Spaces Symposium** on March 12-14, the world's leading event on data spaces, organised by the Data Spaces Business Alliance, is another platform where FLUIDOS will have the opportunity to showcase its market-ready use cases and advanced technology solutions, next to the other MetaOS projects and connect with business representatives and other research and innovation initiatives. The **1st International Workshop on MetaOS for the Cloud-Edge-IoT Continuum (MECC 2024)**, a collaborative effort by FLUIDOS and the other five EU MetaOS projects, is set to take place at **ACM EuroSys 2024** from April 22nd to April 25th, 2024, in Athens, Greece. This pivotal workshop will delve into the orchestration of the Cloud-Edge-IoT ecosystem by a MetaOS, focusing on addressing interoperability, standardization, and enhancing contributions to open-source projects. The event promises a rich exchange of ideas and collaborative opportunities for advancing MetaOS technologies.

As member of TF6, FLUIDOS will be co-hosting a series of webinars in the upcoming **"EUCloudEdgeIoT.eu RIA Showcase"** webinar series, after its first instalment on "Next-generation IoT Insights" (see section 2.2). This series aims to provide a platform for RIAs supported by the EUCEI initiative, mainly Open Continuum, to present their cutting-edge results and achievements in the CEI Computing Continuum. The series will offer insights onto the transformative projects contributing to European competitiveness in core internet infrastructures. This collaborative opportunity will bring together TFs, CSAs and RIAs, as members of all will actively participate in organising and presenting the insightful sessions. FLUIDOS will co-organise with aerOS the "MetaOs Systems Showcase" webinar, which will unveil projects that leverage virtualised, platform-agnostic operating systems for the IoT cloud-edge continuum.

Further events that FLUIDOS is participating in during Y2 are:

EU Open Source Policy Summit 2024

(2 February 2024)

2024 marks a significant milestone for the Summit that gathers esteemed policymakers, leading open source businesses, community members, developers, foundations, and

experts at the forefront of various digital policy domains. FLUIDOS will use this opportunity to explore possibilities for strategic applications and advancement to its open source technology.

27th Conference on Innovation in Clouds, Internet and Networks (ICIN 2024)

(Paris, 11-14 March 2024)

ICIN 2024 is set to explore the latest innovations and trends in cloud computing, internet technologies and network infrastructures. This conference aims to bring together researchers, industry professionals and academics to discuss challenges, share solutions, and present new research findings in the areas of cloud services, IoT applications and advancements in networking. ICIN 2024 serves as a pivotal platform for fostering collaboration, encouraging the exchange of ideas, and driving forward the future of digital connectivity and cloud-based solutions. A partner from FLUIDOS is delivering the keynotes 'Demonstrating Runtime Microservice Rescheduling in Hybrid Clouds for Cost Minimization' and 'Cost Minimization in Multi-cloud Systems with Runtime Microservice Re-orchestration'.

IEEE Network Operations and Management Symposium (NOMS 2024)

(Seoul, 6-10 May 2024)

The theme for NOMS 2024 is "Towards intelligent, reliable, and sustainable network and service management." Researchers, developers, vendors, service providers and policy makers are taking part in a program filled with technical sessions, demo sessions, panels, keynotes workshops and tutorials. FLUIDOS is going to be participating with a keynote titled 'Latency-aware Scheduling in the Cloud-Edge Continuum'.

10th IEEE International Conference on Network Softwarization (NetSoft2024)

(St. Louis, 24-28 June 2024)

NetSoft 2024 is a premier event dedicated to the advancement of network softwarization technologies, including software-defined networks (SDN), network function virtualization (NFV), and cloud networking. The conference aims to gather experts from academia, industry, and regulatory bodies to exchange ideas, discuss innovative research results, and share experiences in designing and deploying softwarized networks. NetSoft 2024 will feature keynotes, technical sessions, workshops, and tutorials. FLUIDOS is planning to participate in the 6th International Workshop on Cyber-Security in Software-defined and Virtualized Infrastructures (SecSoft) that is co-located within the event as one of the main contributors.

EBDVF 2024

(Budapest, 2-4 October 2024)

As in 2023, FLUIDOS will also attend EBDVF in 2024, which will be instrumental in forging partnerships, gaining insights into the latest research and market needs and exploring pathways for the exploitation and further exploration of its technological advancements. The forum will serve as a platform for FLUIDOS to showcase its contributions to the cloud, edge computing and IoT domains and align with industry leaders and researchers to enhance the project's impact and visibility.

10th IEEE World Forum on Internet of Things (IEEE WFloT2024)

(Ottawa, 10-13 November 2024)

This forum serves as a global platform for academics, industry professionals, and government leaders to discuss and share cutting-edge developments in IoT, covering topics such as IoT applications, security, connectivity solutions, and the impact of IoT on society and industry.

Other events that FLUIDOS consortium is targeting for attendance, with plans to utilize these opportunities for showcasing the project's advancements, include the following:

KubeCon EU 2024, (Paris, 19-22 March 2024)

DataCloud Global Congress 2024, (Cannes, 5-6 June 2024)

IEEE International Conference on Communications (ICC 2024), (Denver, 9-13 June 2024)

AI & Big Data Expo Global 2024, (London, tbd)

IEEE International Conference on Internet of Things (iThings 2024), (Copenhagen, 19-22 August 2024)

AIOTI Days 2024, (Brussels, 24-25 September 2024)

4.2.3 Planned papers

At the present time, as registered until M18, there are twelve papers submitted by the project team that are in the process of being evaluated or in the pipeline for publication.

TABLE 3: LIST OF PLANNED PUBLICATIONS

Title	Authors	Title of the journal or equivalent
Demonstrating Runtime Microservice Rescheduling in Hybrid Clouds for Cost Minimization	Silvio Cretti, Marco Zambianco, Domenico Siracusa	27th Conference on Innovation in Clouds, Internet and Networks
Cost Minimization in Multi-cloud Systems with Runtime Microservice Re-orchestration	Silvio Cretti, Marco Zambianco, Domenico Siracusa	27th Conference on Innovation in Clouds, Internet and Networks
Latency-aware Scheduling in the Cloud-Edge Continuum	Cristopher Chiaro, Doriana Monaco, Alessio Sacco, Claudio	IEEE Network Operations and Management Symposium (NOMS 2024)

	Casetti, Guido Marchetto	
BeaCon: Automatic Container Policy Generation using Environment-aware Dynamic Analysis	Haney Kang, Eduard Marin, Myoungsung You, Jinwoo Kim, Diego Perino and Seungwon Shin	Under review
Detecting and Mitigating Information Leakage at the Container-Kernel Interface	Eduard Marin, Nicolas Kourtellis, Diego Perino, Stefano Braghin, Ambrish Rawat and Naoise Holohan	Under review
Dynamic Frequency-Based Side-Channel Attack against Modern Sandbox Environments	Debopriya Roy Dipta, Thore Tiemann, Berk Gulmezoglu, Eduard Marin and Thomas Eisenbarth	Under review
Debopriya Roy Dipta, Thore Tiemann, Berk Gulmezoglu, Eduard Marin and Thomas Eisenbarth	Eduard Marin, Alessio Pavoni, Roberto di Pietro, Mauro Conti	Under review
Hierarchical Federated Learning with Privacy	Varun Chandrasekaran, Suman Banerjee, Diego Perino, Nicolas Kourtellis	Under review
X ² FL: Practical Cross-Device Cross-App Federated Learning	Kleomenis Katevas, Diego Perino, Nicolas Kourtellis	Under review
Asynchronous Federated Learning with Local Differential Privacy	Mohammad Naseri, Emiliano de Cristofaro, Nicolas Kourtellis	Under review
AI-driven Workload Management in Meta OS	Liubov Nedoshivina, Killian Levacher, Kieran Fraser, Anisa Halimi, Stefano Braghin	Under review

Orchestrated ICT architecture for grid monitoring of distribution power grid	Roberta Terruggia, Elisa Albanese, Luca Zuanazzi	CIGRE Paris Session 2024 (under review)
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4.2.4 Promotional materials

Additional promotional materials will be produced in alignment with event organization and attendance during the next period. A more comprehensive flyer is going to be designed and more in-depth videos regarding the project's use cases are going to be produced, as well as a promotional video as part of the upcoming OC.

4.2.5 Communication campaigns

Additional promotional materials will be produced in alignment with event organization and attendance during the next period. A more comprehensive flyer is going to be designed and more in-depth videos regarding the project's use cases are going to be produced, as well as promotional videos as part of the upcoming OC campaign. During the initial phase of the project, our communication efforts were predominantly aimed at informing the general public about the project's vision, goals, and the broader context of its operation, alongside highlighting ongoing activities. As we progress further into the project, the communication strategy will shift towards a more detailed exposition of the technological advancements, the outputs generated, and the collaborative achievements spurred by the Open Calls. In anticipation of the second Open Call in August 2024, we will initiate a new communication campaign. This campaign will spotlight the significant contributions and integrations made by the beneficiaries of the first Open Call, emphasizing their pivotal role in the project's advancement.

5 CONCLUSIONS

The deliverable at hand provided updates on specific communication and dissemination activities carried out by the FLUIDOS consortium during the first half of the project and the performance of the FLUIDOS Dissemination, Communication and Community Building Strategy against the KPIs defined prior to project launch. The report also outlined the projected communication and dissemination activities for the upcoming 18 months of the project.

Overall, we affirm that the project's communication and dissemination strategy remains on course, having yielded favorable outcomes during the initial 18 months. This is largely due to the systematic monitoring of performance against the set of communication and dissemination KPIs, which has allowed us to track progress, identify areas for improvement and implement corrective actions. With the active support and collaboration of all the project partners of FLUIDOS, we are confidently progressing towards meeting the targets and, in some instances, surpassing the initial objectives.