SovereignEDGE.EU / COGNIT

A Cognitive Serverless Framework for the Cloud-Edge Continuum

D6.1 Communication and Dissemination Plan & Report - a

Version 1.0

31 July 2023

Abstract

COGNIT is an AI-enabled Adaptive Serverless Framework for the Cognitive Cloud-Edge Continuum that enables the seamless, transparent, and trustworthy integration of data processing resources from providers and on-premises data centers in the cloud-edge continuum, and their automatic and intelligent adaptation to optimise where and how data is processed according to application requirements, changes in application demands and behaviour, and the operation of the infrastructure in terms of the main environmental sustainability metrics. This document provides information about the Project's communication and dissemination plan, including the specification of the target dissemination groups, the publication policy, event planning, and marketing. Each version of this document offers as well specific details about the communication and dissemination actions that have taken place during the corresponding reporting period.

Deliverable Metadata

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Status:	Submitted

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Summary of Changes from Previous Versions

First Version of the "Communication and Dissemination Plan & Report" Deliverable

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[1] A deliverable can be in one of these stages: Draft, Peer-Reviewed, Submitted, and Approved.

Executive Summary

This is the first version of Deliverable D6.1, the Communication and Dissemination Plan & Report in WP6 ("Dissemination, Communication, Exploitation, and Standardization"). It describes the specific actions to be implemented in order to share (Disseminate) and promote (Communicate) the Project and its research results among potential users in the target groups, with a special focus on Industry, Academia, and the General Public. It also includes details about the specific actions that have already been executed up until the end of the reporting period covered by this document (M6).

The main communication and dissemination objectives of the Project are:

- Ensure broad visibility and raise awareness about COGNIT, spreading knowledge about its results.
- Reach, stimulate, and engage a critical mass of relevant stakeholders to consolidate an ecosystem around the Project.
- Facilitate exploitation of the Project's data and research outcomes.

The communication and dissemination tools that the Project will use include the project website, a public blog, a variety of informative materials like banners, videos, flyers, and roll-ups, and social media posts on LinkedIn and Twitter. Different types of actions have been defined per each type of target audience, including scientific and commercial publications, conferences, workshops, exhibitions, and engagement with the rich EU industry and innovation ecosystem via relevant pan-European communities and initiatives such as the **EUCloudEdgeIoT** CSA.

Current communication and dissemination progress at the end of M6 include:

- ✔ 2 blog posts
- ✔ 1 exhibition booth
- ✔ 5 presentations and 2 panels
- ✔ 1 press release
- ✔ 2 public deliverables
- ✔ 1 commercial publication (launched before the official start of the Project)
- ✔ 29 social media posts
- ✔ 2 internal webinars

Both OpenNebula—as Project Coordinator—and CETIC—as leaders of the Project's WP6—will regularly monitor the Communication and Dissemination KPIs of the Project to ensure they are in line with the plan described in this document.

This deliverable covers up until the end of the first semester of the Project (M6), and will be revised in months M18 and M36.

Table of Contents

Abbreviations and Acronyms

AI	Artificial Intelligence
AWS	Amazon Web Services
CSA	Coordination and Support Action
EDIH	European Digital Innovation Hub
FaaS	Function as a Service
IoT	Internet of Things
KPI	Key Performance Indicator
GA	Grant Agreement
GDPR	General Data Protection Regulation
ML	Machine Learning
NGO	Non-governmental Organisation
OS	Operating System
PR	Press Release
UC	Use Case
URL	Uniform Resource Locator

1. Introduction

The general purpose of Deliverable D6.1 is to outline a structured approach of the COGNIT Project in terms of communicating, disseminating, and sharing information, results, and research outcomes with relevant stakeholders, target audiences, and the general public. To this end, D6.1 will be incrementally revised in M18 and M36 incorporating updates (if any) to the dissemination and communication plan of the Project as well as updates on the achieved dissemination and communication actions and the level of completion of the associated Key Performance Indicators.

This is a living document that is composed of an introductory section and six additional sections organised in two main blocks of content:

- **Part I** focuses on providing the approach and structure of the Communication and Dissemination Plan. Thus, Section 2 defines the communication and dissemination approach, including the strategy, target audiences, and objectives; Section 3 describes the communication and dissemination tools that the project will use; Section 4 covers the planned communication and dissemination actions, including publication policy, event participation, and collaborations policy and targets; with Section 5 covering the monitoring and evaluation approach of the communication and dissemination actions of the Project, including the targeted Key Performance Indicators (as defined in the Grant Agreement).

- **Part II** focuses on reporting the specific progress in the execution of the Project's Communication and Dissemination Plan. Section 6 provides the details of the specific actions performed up until M6, whereas Section 7 summarises the impact that those actions have had on the expected KPIs during the reporting period.

This document includes references to the Data and Research Outputs Management Plan, as defined in Deliverable D1.1.

PART I. Communication and Dissemination Plan

2. Communication Objectives and Approach

This first Dissemination and Communication Plan describes the specific actions to be implemented in order to share (Dissemination) and promote (Communicate) the Project and its research results among potential users in the target groups. While the aim of the Dissemination Plan is to enable the use and uptake of the results and gather feedback, the Communication Plan aims to promote the benefits of the research carried out by COGNIT.

2.1. Communication strategy

The communication strategy of the COGNIT Project as an industry-led open source R&D action involves methods to effectively promote and distribute the project to a wide audience of both the academia and industry worlds. The goal in both cases is to increase awareness, attract contributors/collaborations, and encourage adoption of the results of the Project. The key elements of the communication strategy are:

1. Determine the key target audiences of the project: These could include industry professionals, potential users, decision-makers, researchers, or the general public. Clearly define the objectives for targeting these audiences.

2. Online Presence: Establish a strong online presence by creating a dedicated project website. Provide comprehensive documentation, tutorials, and resources for potential users and contributors. Maintain an active presence on relevant online platforms (e.g. GitHub, Stack Overflow, and relevant forums) to effectively engage with the community and address enquiries.

3. Social Media Engagement: Leverage popular social media platforms like Twitter and LinkedIn to share project updates, announcements, and success stories. Encourage the community to follow and engage with the Project's social media accounts. Regularly post informative and engaging content to generate interest and attract new users.

4. Utilise diverse communication channels: Select a mix of communication channels to effectively reach out to the Project's target audiences. These can include:

    *   Online platforms (as described above).

    *   Industry conferences and events: Participate in relevant industry conferences, trade shows, and events where you can showcase your software, deliver presentations, and engage with potential users and stakeholders.

    *   Webinars and workshops: Organise webinars and workshops to provide in-depth demonstrations, training sessions, and interactive discussions about the project. Invite industry professionals and potential users to participate and engage with the Project and its community.

- Press releases and media coverage: Prepare press releases to share important project milestones, partnerships, or significant achievements. Engage with industry-specific media outlets and journals.

5. Community Building: Foster a vibrant and inclusive community around the project. Create discussion forums, use collaboration platforms and events to interact with this ecosystem. Actively participate and curate this community, providing support, and encouraging discussions to build a strong network of users and contributors.

6. Other relevant projects outreach: Reach out to relevant projects and communities to promote the project. Attend or speak at conferences, workshops, and events to present the Project's achievements. Collaborate with other projects or organisations to increase visibility, especially with those that are also EU-funded.

7. Collaborate with industry or academia partners: Seek partnerships with complementary companies or organisations that can benefit from the Project. Explore opportunities for joint research initiatives, cross-project collaborations, or integration with other academic or industry solutions.

8. Measure and evaluate impact: Establish monitoring mechanisms to assess the progress of the Project towards its dissemination KPIs and effectiveness of the dissemination strategy. Track website traffic, engagement on social media platforms, download rates for content, and user feedback. Continuously evaluate the impact of the Project's efforts, and make adjustments when needed.

2.2. Target audiences

We have identified the following audiences that we can approach in order to disseminate the Project and explore mutually-beneficial collaborations:

- Academia: Universities, research organisations (university centres, non-profit organisations, or public research centres)

- Industry: Companies that can be end-users of the COGNIT Framework, or companies that develop technologies or services that are in the area of IoT and cloud/edge computing.

- Private and public entities in Europe: Government agencies (involved in digitalisation, or domain specific), and NGOs.

- End-users, networks and associations, and EU agencies: EDIHs, CSAs, and other research projects.

- COGNIT partners: Organisations that are already part of the Consortium.

- General public and the media.

The main objectives of dissemination and communication activities to these audiences are:

- Raise awareness: Make the Project's progress, benefits, and outcomes known to the target audiences. Includes informing them on improvements on performance,

capabilities, and security of the solution developed by COGNIT. In this case, the objective is to encourage audiences to engage with the Project and its outcomes.

- Invite them to collaborate: Collaboration in the form of joint communication and dissemination of the project and its results; in the form of community building for all forms of contributions to the technological solution (development, testing, reviewing, improving documentation, etc); or in the form of partnerships towards new solutions or to increase visibility.

- Present results: Inform the audiences about the achievements of COGNIT.

	Main objectives	Dissemination Channels
Academia	Raise awareness Invite to collaborate Present results	Scientific journals Research workshops Scientific conferences Project website
Industry	Present results Invite to collaborate	Industry events and forums Open source conferences Commercial publications Exhibitions Website Blog
Private and public entities in Europe	Present results	Commercial publications Open source conferences Newspapers
End-users, networks and associations, and EU agencies	Raise awareness Invite to collaborate	EU dissemination events Open source conferences Project events Public reports Website Blog
COGNIT partners	Raise awareness Present results	Internal webinars Project events Direct communication Website
General public and the media	Raise awareness	Press releases Newspapers Screencasts

Table 2.1. Main objectives and dissemination channels per target audience.

2.3. Key objectives

The main communication and dissemination objectives of the Project are:

- Ensure broad visibility and raise awareness about COGNIT, spreading knowledge about its results. The main idea is to establish a distinctive, recognisable, and long-standing identity which can work as a bedrock for the software prototypes launched during the Project.

- Reach, stimulate, and engage a critical mass of relevant stakeholders to consolidate an ecosystem of technological partners, research partners, cloud/edge providers, external developers and beta-testers, and other parties; and to ensure that the results of the Project are well-known and taken up, especially by companies in the targeted strategic key sectors.

- Facilitate exploitation of the Project's data and research outcomes by partners, and promote the development of innovative solutions based on the new technologies.

Based on the above key objectives we have identified key messages based on the main stakeholders and target audiences of the Project: academia, industry, governmental organisations, and the general public.

- Main message for Industry:

    - Innovative: It incorporates a new FaaS model and AI-enabled techniques for optimal large-scale cloud-to-edge orchestration.

    - European: It combines and extends some of the most innovative and iconic open source cloud and edge technologies in Europe.

    - Vendor-Neutral: It brings interoperability and portability to avoid vendor lock-in and increase the bargaining power of customers.

- Main message for Academia:

    - Open to collaboration, solution integrations, and contributions.

    - The enabling platform for advancing research in ICT and other application domains that can be benefited from edge computing facilities and solutions.

- Main Message for Government:

    - Enable a more vendor-neutral market, avoiding the dominance of non-EU providers.

    - Promote competitiveness and bring new business opportunities for EU companies.

- Main message for the General Public:

    - The enabling platform for key societal applications, building sustainable environments, and consolidating the EU's data sovereignty.

3. Communication and Dissemination Tools

3.1. Visual identity

Logo

An attractive design that emphasises the Project's connection with Europe's "Cognitive Cloud", the specific topic in Horizon Europe (Cluster 4) that funds this action:

**Figure 3.1.** Set of COGNIT official logos.

Presentation template

A simple model for all partners to share their contents about COGNIT in a consistent way, while helping to consolidate the Project's identity across the EU innovation ecosystem:
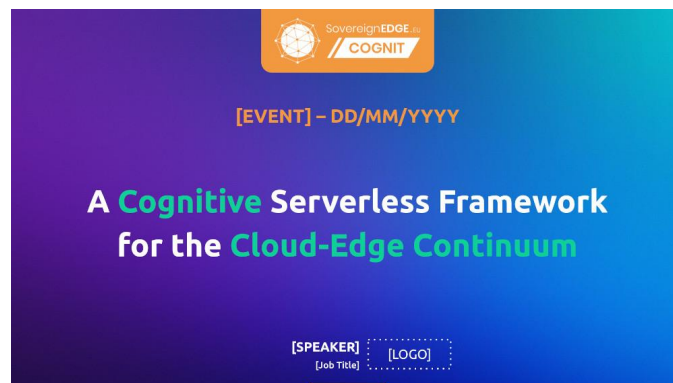
Figure 3.2. Cover of the COGNIT presentation template.

Acknowledgment slide

All presentations by the COGNIT partners include a standard acknowledgement of the role that the European Union's Horizon Europe programme plays as the Project's funding body:
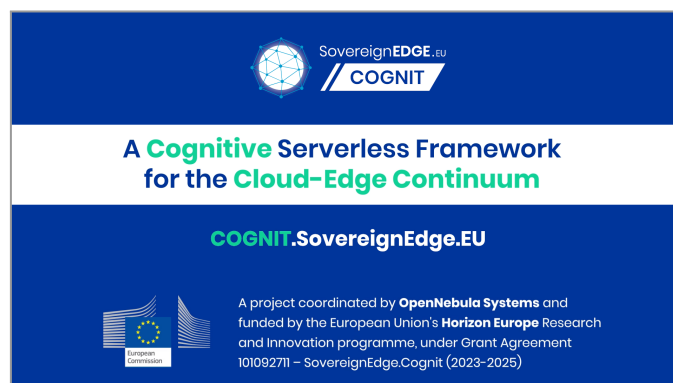
Figure 3.3. COGNIT's standard acknowledgement slide.

3.2. Project website

The COGNIT website—based on a **WordPress** instance managed by OpenNebula—is the main interface that connects the Project to its audiences. It is a capital tool for sharing the Project's objectives, purpose, and outcomes (see Deliverable D1.1. for more details). The website also helps to raise awareness about the concept of "Cognitive Cloud", the role of Artificial Intelligence in Europe's emerging cloud-edge computing, and the benefits of using European open source technologies for consolidating the EU's digital sovereignty:

Figure 3.4. Homepage of COGNIT.SovereignEdge.eu

The project website contains information and multiple online resources that are publicly available to all visitors, including:

- General information about the COGNIT Project.

- A comprehensive list of Consortium partners.

- References to the validation use cases and their leaders.

- Early access to the Project's public deliverables.

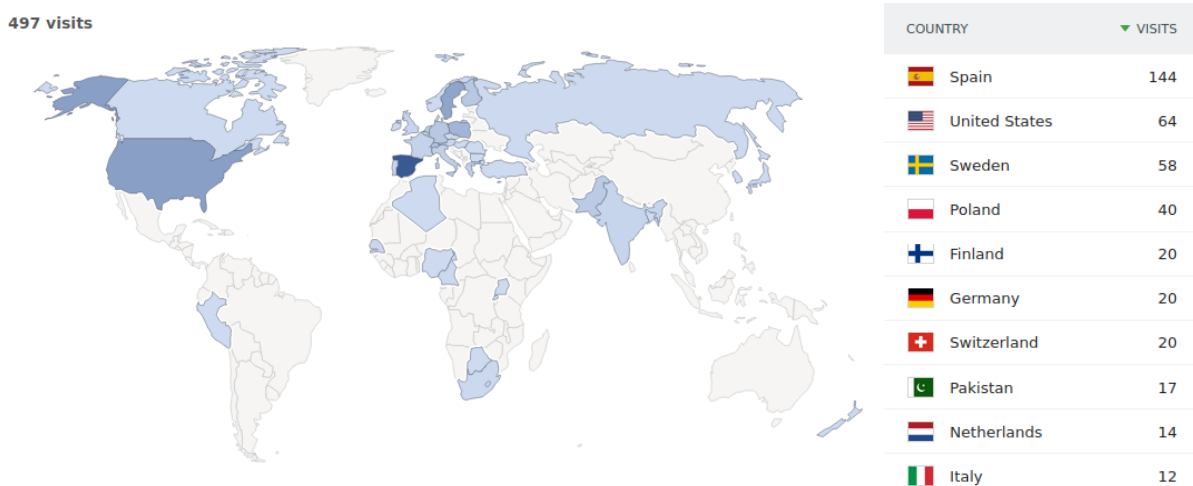- Access to the Project's blog (which was officially launched in M5).

Since March 2023, the project website uses **Matomo**, a GDPR-compliant open source web analytics application that has been integrated with our Wordpress instance to easily track online visits and obtain reports for analysis:
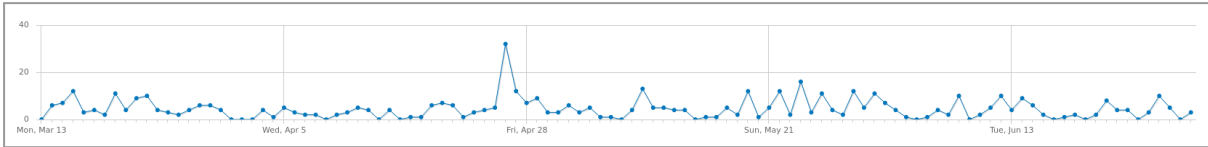
Figure 3.5. Visits to the COGNIT's project website during the reporting period (via Matomo).
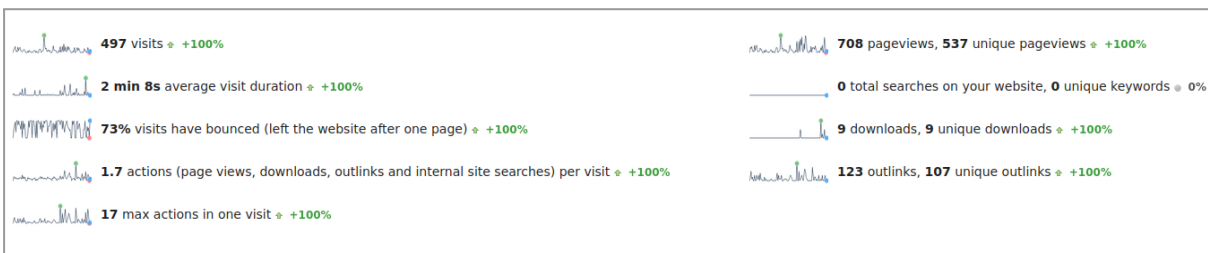
**Figure 3.6.** Main metrics for the COGNIT's project website for the reporting period (via Matomo).

497 visits

COUNTRY	▼ VISITS
🇪🇸 Spain	144
🇺🇸 United States	64
🇸🇪 Sweden	58
🇵🇱 Poland	40
🇫🇮 Finland	20
🇩🇪 Germany	20
🇨🇭 Switzerland	20
🇵🇰 Pakistan	17
🇳🇱 Netherlands	14
🇮🇹 Italy	12

Figure 3.7. Origin of visits to the project website during the reporting period (via Matomo).

3.3. Informative material

In line with the Project's identity brand, additional materials have been designed and produced in order to support the Project's communication tasks.

Banner

A generic promotional banner has been created for social media and presentations in order to provide some basic information about the Project and its Consortium:
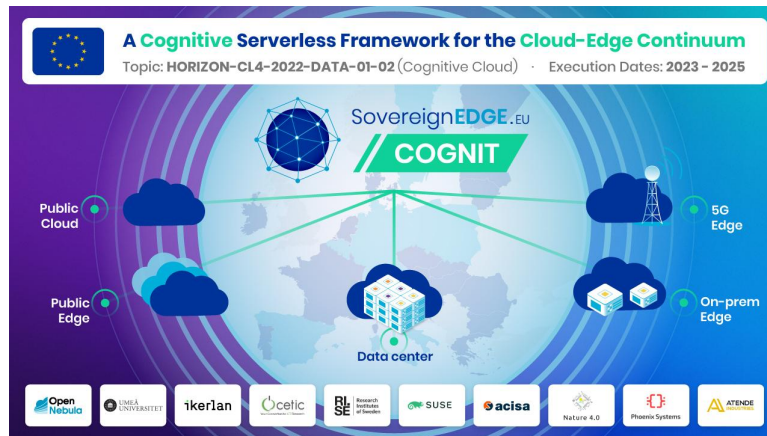
Figure 3.8. COGNIT promotional banner.

Videos

COGNIT has created an account on **Vimeo** to help disseminate the promotional videos to be created during the execution of the Project:
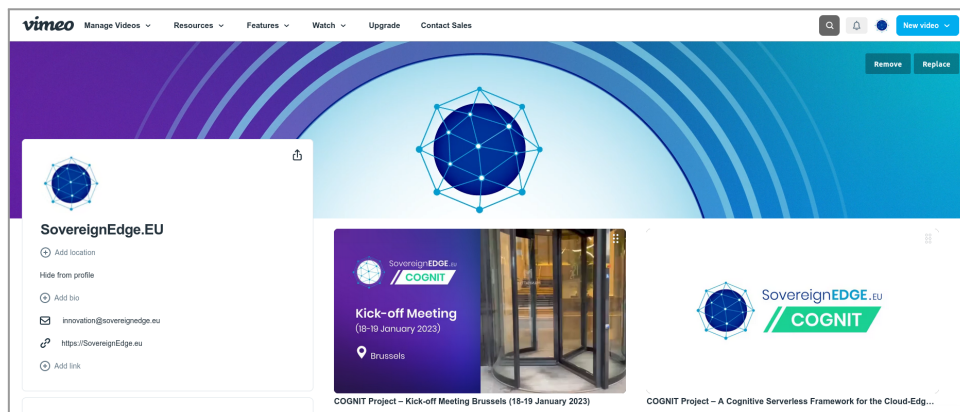
Figure 3.9. COGNIT profile on Vimeo, showing the two existing videos produced by the Project.

Flyer

A generic promotional flyer has been created for providing basic information about the Project (including Consortium partners, validation use cases, and the standard acknowledgement to HE) in relevant tech & open source events.

This flyer has already been used in early February 2023 at FOSDEM (Brussels) to raise awareness about COGNIT among the European open source community participating in this major event.

Figure 3.10. COGNIT flyer on display at FOSDEM 2023

Roll-up

COGNIT has also created a generic promotional roll-up that provides basic information about the Project and can be brought to events and relevant occasions in which a large-format, physical display is required. This design has already been used at FOSDEM 2023 (Brussels) by OpenNebula to raise awareness about COGNIT among the European open source community participating in this major event, and also by CETIC at the Concertation & Consultation Meeting on Computing Continuum (Brussels) organised by the EUCloudEdgeIoT CSA in May 2023.

Figure 3.11. COGNIT roll-up on display at FOSDEM 2023 [top] and at the CSA event [bottom].

3.4. Social media

Social media platforms (i.e. LinkedIn and Twitter) are being used by COGNIT as an instrument to raise awareness about the Project and the Cognitive Cloud topic in Horizon Europe, and to communicate specific messages to the Project's target audiences:

- LinkedIn is a more business-oriented network where we can engage with specific profiles and industry/innovation organisations in order to share information—following a more formal approach—about scientific publications, deliverables, project results, and main achievements of the Consortium.

- Twitter is the channel that we use to create awareness among the tech community and the general public, using a less formal approach to share information about publications, events, project results, and news about relevant topics such as the use of Artificial Intelligence in cloud-edge environments.

In both cases, posts generated by the Project are consistently using the unique hashtag **#COGNITproject** in order to help partners identify contents that they should try to

promote through their own corporate social media accounts (e.g. by using the standard *like*, *share*, *comment* options) in order to maximise impact and attract additional followers.
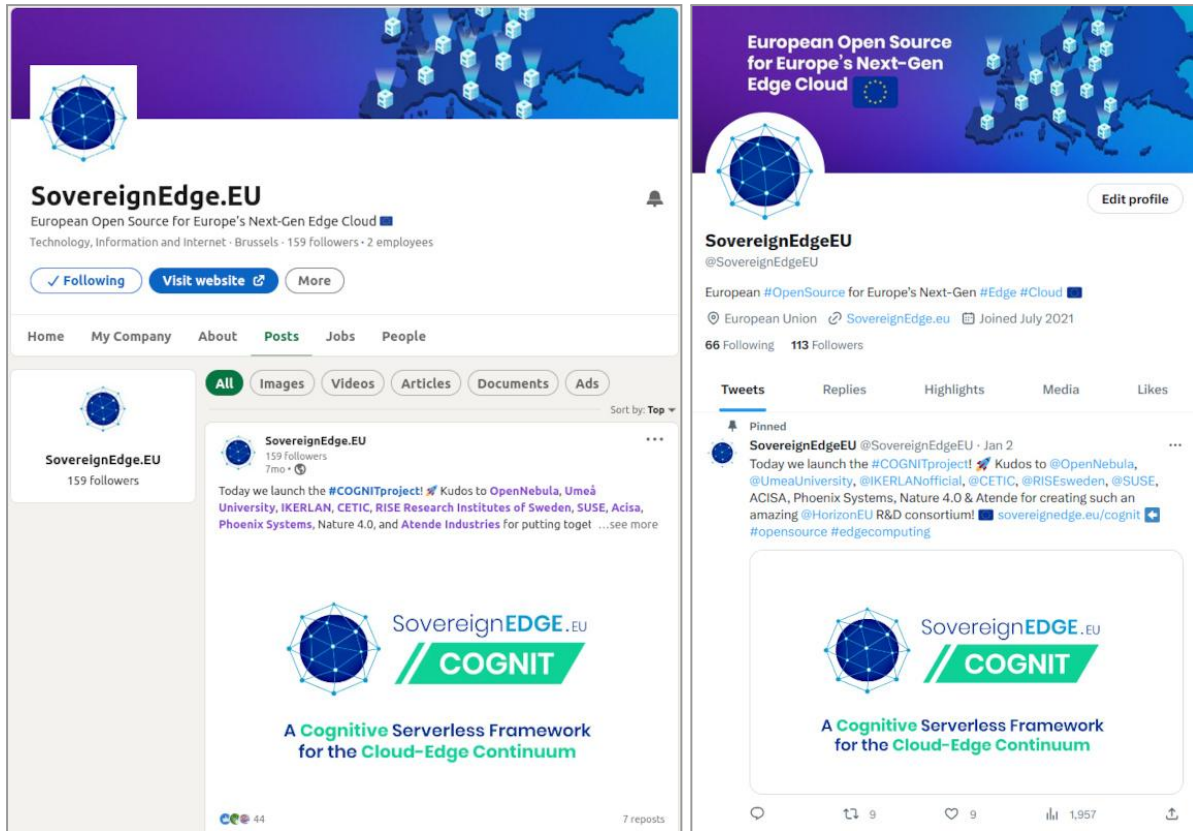
Figure 3.12. COGNIT presence in social media platforms.

4. Communication and Dissemination Actions

This section provides the Project's plan of communication and dissemination actions. Here we describe the different types of actions and the targeted implementation achievements for each type of audience (as described in Section 2).

4.1. Publications

The COGNIT Project plans to publish its progress and results in three different ways based on the following target audiences and goals:

Industry

Planned industrial and open source publications actions:

- 6 commercial publications in online magazines and blogs.
- Publication of Report and Software prototypes under an open source licence in a public repository (i.e. **GitHub**).

Scientific Community

The COGNIT Project plans to publish 9 papers in relevant scientific journals in cloud and edge computing fields. Examples of such journals are the IEEE Transactions on Cloud Computing, Journal of Grid Computing, Journal of Cloud Computing. We will also address special issues in the aforementioned areas.

General Public

The aim is to communicate high level benefits of the Project to the general public and decision-makers. For the dissemination of the Project's achievements to the general public, the following actions will be executed:

- Publication of 6 press releases.
- 6 publications in newspapers.
- Publication of screencasts and videos on the project website.
- Promotion through social media.

4.2. Conferences, workshops, exhibitions and other events

This subsection provides the policy and targets of the Project concerning the participation in scientific conferences, organisation of workshops, and participation in commercial and open source exhibitions as well as in general public and government events.

Scientific conferences and workshops

The COGNIT Project is aiming at participating in many and diverse scientific conferences and events in order to communicate research-specific techniques and methods for the new distributed FaaS model, explain how COGNIT achieves the secure, portable, and

self-adaptive execution of serverless functions, and share the benefits of the automatic and intelligent adaptation of the cloud-edge continuum.

To this aim, the project will organise 3 research workshops in relevant scientific conferences on cloud and edge computing.

Additionally, the Project will undertake 6 presentations in scientific conferences on cloud and Edge Computing, or featuring special tracks.

For both workshops and presentation we will consider events such as the IEEE International Conference on Fog and Edge Computing, the IEEE Cloud Summit and the ACM/IEEE Symposium on Edge Computing; we will also consider thematic tracks in HPDC (IEEE International Symposium on High Performance Distributed Computing), in DISC (International Symposium on Distributed Computing), or similar.

Commercial and Open Source events

The COGNIT Project plans to disseminate and communicate its architecture design, the new distributed FaaS model and open source software for the automatic and intelligent cloud-edge adaptation in key application domains to corporate users and infrastructure and solution providers.

Dissemination actions targeting commercial and open source events, trade shows and exhibitions include:

- Presentations in 6 open source conferences like ETSI, OpenFog, OpenNebulaCon, OSCON, Linux Foundation Open Source Summit, and FOSDEM.

- Exhibition booths and presentations with demonstrators from use cases in 6 relevant cloud and edge industry forums like VMworld, Amazon RE:invent, Cloud Expo, and IoT Tech Expo, and the Gaia-X Summit.

- Exhibition booths in 3 relevant open source conferences like ETSI, OpenFog, OpenNebulaCon, OSCON, Linux Foundation Open Source Summit, and FOSDEM.

- Organisation of 9 Webinars and TechDays training sessions.

- Organisation of 3 Technical Workshops on relevant cloud or edge events with users of edge and cloud technologies.

- Organisation of 2 project events in M18 and M36.

- Promotion through social media.

General Public & Government events

The COGNIT Project aims at producing demonstrators in key industrial and societal applications which in future require more power at the edge. Such demonstrators will aim to raise awareness and be suitable for the general public in public events or trade shows.

4.3. EU Innovation Ecosystem

The COGNIT Project will closely follow and collaborate with EU funded projects and initiatives that are involved in the domain of IoT and cloud/edge computing, and will participate in relevant EU-backed events and summits.

- The Coordination and Support Action project **EUCloudEdgeIoT** is an initiative that aims to develop communication and collaboration channels between a wide range of research projects, developers, suppliers, business users and other stakeholders of technologies around the cloud-edge continuum.
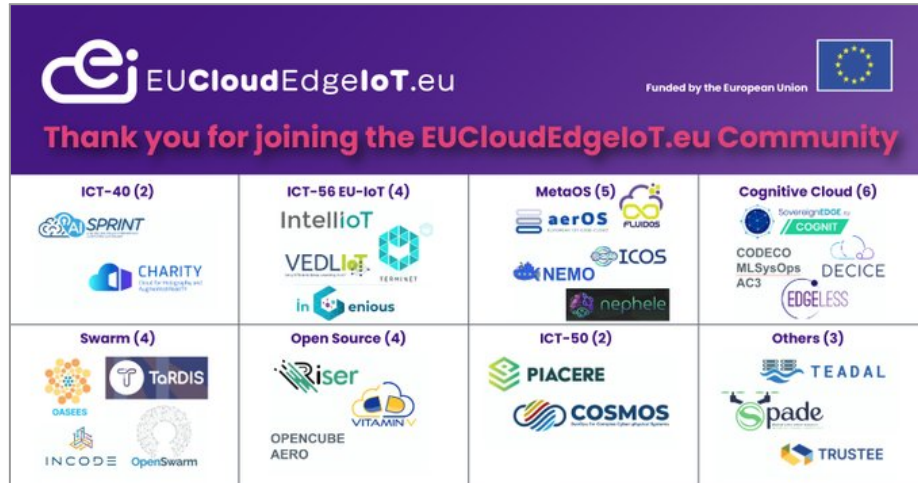
Figure 4.1. EUCloudEdgeIoT ecosystem of EU-funded projects.

- **European Digital Innovation Hubs** (EDIHs) are one-stop centres supporting EU companies and public sector organisations to respond to digital challenges and become more competitive. EDIHs are typically specialising in a specific application domain and targeting regional companies of that specific domain. The COGNIT Project, in collaboration with EDIHs, could provide awareness and expertise to companies of application domains where IoT and cloud/edge technologies can be very beneficial.

5. Monitoring and Evaluation

Monitoring and evaluation of the actions carried out the Project is performed by:

1. Regularly collecting data about those communication and dissemination actions.

2. Analysing them against the established KPIs to identify shortcomings, bottlenecks, deviations, and other possible challenges.

3. Clearly reporting them to the EC in order to demonstrate the Project's progress.

4. Providing feedback to make the necessary adjustments and continuously improving the performance and communication/dissemination results.

The table below presents the Project's dissemination and communication KPIs that are defined in the Grant Agreement and will be used for evaluating the Project's communication and dissemination progress:

KPI #	Communication / Dissemination action	Audience	Target	Due Date	KPI Status at the end of M6
KPI6.1	Champion Programme	Industry / Open Source	1	M18	Leveraging OpenNebula and SUSE's existing communities.
KPI6.2	Participation in communities: Linux Foundation, CNCF, and LF Edge	Industry / Open Source	3	M18	Targeting global open source communities.
KPI6.3	Participation in EU initiatives: GAIA-X, EOSC, IPCEI-CIS, and EU Cloud Alliance	Industry	4	M36	Targeting pan-European industry ecosystems.
KPI6.4a	Exhibition booths in relevant open source conferences	Industry / Open Source	3	M36	E.g. ETSI, OpenFog, OpenNebula, OSCON, LF Open Source Summit, and FOSDEM.
KPI6.4b	Exhibition booths in relevant cloud & edge industry forums	Industry	3	M36	E.g. VMworld, AWS re:Invent, Cloud Expo, IoT Tech Expo, and the Gaia-X Summit.
KPI6.4c	Presentations in open source conferences	Industry / Open Source	6	M36	E.g. ETSI, OpenFog, OpenNebula, OSCON, LF Open Source Summit, and FOSDEM.
KPI6.4d	Presentations with demonstrators from use cases in relevant cloud & edge industry forums	Industry	6	M36	E.g. VMworld, AWS re:Invent, Cloud Expo, IoT Tech Expo, and the Gaia-X Summit.
KPI6.4e	Technical workshops in relevant open source conferences and industry forums	Industry / Open Source	3	M36	Offering first-hand access to the new developments.
KPI6.4f	Webinars and Techdays	Industry	9	M36	Public training sessions.
KPI6.4g	Project events	Industry	2	M18, M36	Reaching to the EU ecosystem.
KPI6.5a	Papers published in relevant scientific journals	Academia	9	M36	E.g. IEEE Transactions on Cloud Computing, Journal of Grid Computing, Journal of Cloud Computing.
KPI6.5b	Presentations or special tracks in relevant scientific conferences	Academia	6	M36	E.g. IEEE IC on Fog & Edge Computing, IEEE Cloud Summit, ACM/IEEE Symposium on Edge Computing.

KPI6.5c	Research workshops in relevant scientific conferences.	Academia	3	M36	E.g. IEEE IC on Fog & Edge Computing, IEEE Cloud Summit, ACM/IEEE Symposium on Edge Computing.
KPI6.6a	Commercial publications in online magazines and blogs	Industry	9	M36	About COGNIT and its pilot application in specific domains.
KPI6.6b	Press releases	General Public	6	M36	Main achievements of COGNIT.
KPI6.6c	Publications in newspapers	General Public	6	M36	High level benefits of COGNIT.

Table 4.1. Full list of Communication & Dissemination KPIs of the Project.

Both OpenNebula—as Project Coordinator—and CETIC—as leaders of the Project's WP6 ("Dissemination, Communication, Exploitation, and Standardization")—will regularly monitor the KPIs by asking partners to report and update on their dissemination activities at the Consortium's weekly calls and by collecting these data, analysing them, and making them publicly available through the Project's scheduled dissemination and communication reporting actions (i.e. Deliverables D6.1 in M6, D6.2 in M18, and D6.3 in M36).

In the case of lacking progress on some KPI, first this will be discussed within the WP6 for possible solutions; then the Project Board will be informed and a further discussion for solutions will take place as soon as possible; and finally the whole Consortium will be informed and possibly presented with solutions in order to agree on the best course of action for that specific dissemination/communication action to get back on track in line with the Project's formal KPIs.

PART II. Communication and Dissemination Report

6. Current Communication and Dissemination Progress

6.1. Blog Posts

In order to spread the word about the initial progress of the COGNIT Project among the EU innovation ecosystem (and beyond), we have launched a Community Blog in M5 and published several posts. This Blog is open to any COGNIT partner to contribute with contents, and also to external authors interested in contributing with texts relevant to COGNIT and the broader Cognitive Cloud HE topic.
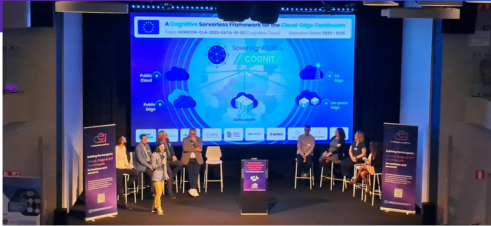
Aggregated Impact [M1-M6]	
Published posts	2
Views	90
Geographic distribution	• Europe: 79% • USA: 13% • Others: 8%

Presenting COGNIT at the Concertation & Consultation Event on Computing Continuum (Brussels)	
Link	https://cognit.sovereignedge.eu/blog/presenting-cognit-at-the-eucloudedgeiot-event-brussels/
Date	May 26, 2023

Author	● Thomas Ohlson Timoudas (WP5 Leader @ COGNIT | Researcher @ RISE)
Aim	This blog post offers an overview of the Concertation & Consultation Event on Computing Continuum organised by the EUCloudEdgeIoT CSA in Brussels, and summarises the role that the COGNIT Project played in that meeting.
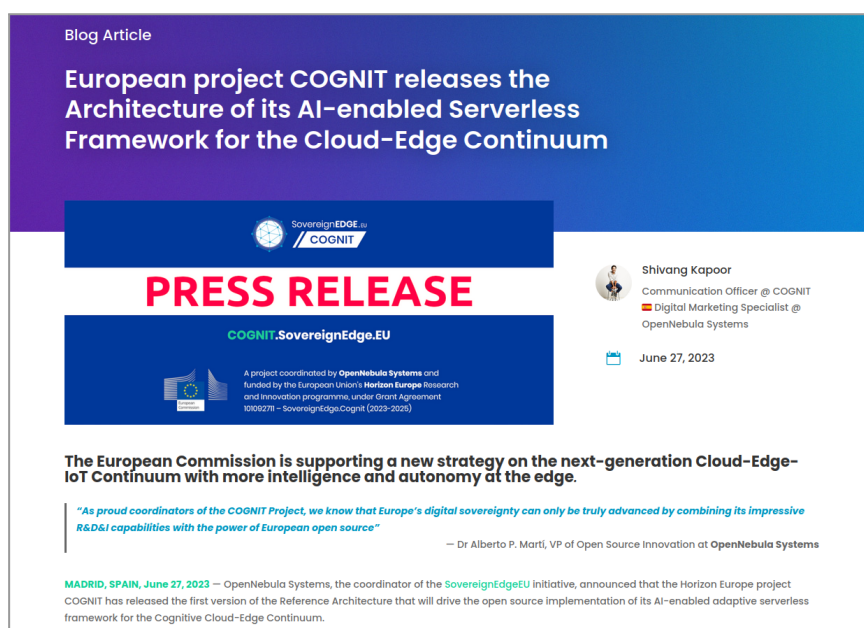
European project COGNIT releases the Architecture of its AI-enabled Serverless Framework for the Cloud-Edge Continuum	
Link	https://cognit.sovereignedge.eu/blog/european-project-cognit-releases-the-architecture-of-its-ai-enabled-serverless-framework-for-the-cloud-edge-continuum
Date	June 27, 2023
Author	● Shivang Kapoor (Communication Officer @ COGNIT | Digital Marketing Specialist @ OpenNebula)
Aim	This blog post reproduces the contents of the Project's first Press Release.

6.2. Exhibition Booths

It is crucial for us to be able to position the COGNIT Project as a major player in the European research and innovation ecosystem, and also to start creating awareness among scientific and industry audiences, especially in connection with European open source technologies. That is the reason why we are participating in physical events since M2:

Aggregated Impact [M1-M6]	
Number of booths	1
Estimated audience	
● FOSDEM 2023	8,000

FOSDEM 2023	
Website	https://fosdem.org/2023/
Date	February 4 & 5, 2023
Location	Brussels (Belgium)
Description	FOSDEM is a huge annual event that brings thousands of open source developers from all over the world to Brussels to learn about new projects, share their developments, and look for ways of collaboration.
Partners	● OpenNebula
Aim	The main objective was to raise awareness about the Cognitive Cloud topic in the Horizon Europe programme, introduce COGNIT to the European open source community, and explain face-to-face to the booth visitors how the Project is going to change the way in which applications

and services are deployed and executed on edge/IoT devices by providing them with secure and portable access to a continuous data processing environment that abstracts the large-scale, geo-distributed, and low-latency capabilities provided by the emerging cloud-edge continuum.

6.3. Presentations & Panels

As mentioned in the previous subsection, we are prioritising participation in events as one of the best ways to communicate the start of the Project and its progress and expected outcomes. We have been delivering presentations about COGNIT since M2:

Aggregated Impact [M1-M6]	
Number of events	7
Estimated audience	
● FOSDEM 2023	8,000
● Mondragón IoT Session	50
● Data Spaces Symposium	700
● EUCloudEdgeIoT Event	100
● VIII PTPiREE Conference	80
● Data Week 2023	200
● OpenNebulaCon2023	750

[PRESENTATION] *FOSDEM 2023*	
Website	https://fosdem.org/2023
Date	February 4 & 5, 2023

Location	Brussels (Belgium)
Description	FOSDEM is a huge annual event that brings thousands of open source developers from all over the world to Brussels to learn about new projects, share their developments, and look for ways of collaboration.
Speakers	- Alberto P. Martí (Project Coordinator @ COGNIT | VP of Open Source Innovation @ OpenNebula) - Marco Mancini (WP2 Leader @ COGNIT | Senior Cloud Solutions Architect @ OpenNebula)
Recordings	- The Role of Open Source at the EU Technology Roadmap for a European Sovereign Cloud. - Deploying Kubernetes across Hybrid and Multi-Cloud Environments Using OpenNebula.
Aim	The main objective was to introduce COGNIT to the European open source community and explore some of the approaches and technological foundations that will contribute to the implementation of the Project, including the benefits of using European open source for consolidating the EU's digital sovereignty, and the potential of cloud-native solutions like OpenNebula and Kubernetes in hybrid and multi-cloud environments.

[PRESENTATION] *Mondragón IoT Session*	
Website	https://enpresadigitala.spri.eus/es/internet-things-iot-estado-de-la-tecnologia-ejemplos-de-utilizacion-en-productos-y-servicios

Date	February 17, 2023
Location	Mondragón (Spain)
Description	This local conference was focused on the current state of various technologies encompassed by the term IoT, such as data-capturing sensors, communication for sending data to cloud platforms, and data processing. Additionally, products and services that have implemented these technologies in health, energy, or smart cities were presented.
Speaker	● Idoia de la Iglesia (WP3 Leader @ COGNIT | Team Leader, IoT & Digital Platforms @ Ikerlan)
Title	*De M2M a AIoT: Cómo el Edge Computing, las comunicaciones 5G y la IA van a marcar la próxima revolución en la Industria 5.0*
Aim	The event was aimed at individuals from IT departments, innovation units, and business development, as well as entrepreneurs from Spanish companies interested in IoT solutions. It was also of interest to individuals in the commercial areas interested in new business models.
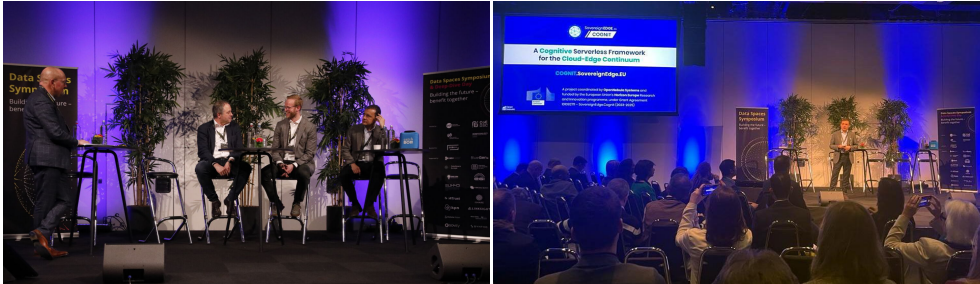
[PANEL] *Data Spaces Symposium*

Website	https://data-spaces-symposium.eu
Date	March 21, 2023

Location	The Hague (Netherlands)
Description	The largest ever event on data spaces organised up until now in the EU, the Data Spaces Symposium has been hosted by the Center of Excellence for Data Sharing and Cloud (TNO), the International Data Spaces Association (IDSA), the Basic Data Infrastructure network, and the Data Spaces Support Centre (DSSC), boosted by the Data Spaces Business Alliance and organised together with EUHubs4Data and MyData Global, this event brought together for the first time a large number of relevant data sharing initiatives and European stakeholders under the same roof.
Speaker	• Ignacio M. Llorente (Researcher @ COGNIT | CEO of OpenNebula)

Title	*Data space tech: What ingredients are there, which are needed?*
Aim	The objective was to present the COGNIT Project to the European ecosystem of industry and R&D organisations involved in the development of the common European data spaces, and to promote a public debate among participants about the need to further collaboration towards building a Cognitive Continuum able to respond to the evolving needs of the emerging EU data economy in terms of smart operation and optimisation of multi-provider, heterogeneous cloud-edge infrastructure.

[PRESENTATION] *Concertation & Consultation Meeting on Computing Continuum*

Website	https://eucloudedgeiot.eu/concentration-and-consultation-meeting-on-computing-continuum-uniting-the-european-ict-community-for-a-digital-future

Date	May 10–11, 2023
Location	Brussels (Belgium)

Description	This event was orchestrated by Open Continuum (EUCloudEdgeIoT CSA), with the support of Unlock CEI and SWForum, under the strategic direction of the European Commission's DG Connect, and brought together leading researchers, policy makers, and industry experts. The event focused on the intersection of Cloud, Edge, and IoT computing, discussing the management of services and data across the computing continuum. As the demand for cloud computing services and edge computing is projected to proliferate, the event recognised the importance of addressing new data processing needs at the edge and emphasised the integration of AI and Machine Learning.
Speaker	- Thomas Ohlson Timoudas (WP5 Leader @ COGNIT | Researcher @ RISE) - Sébastien Dupont (Cybersecurity UC Leader @ COGNIT | Research Engineer @ CETIC) - Ignacio M. Llorente (Researcher @ COGNIT | CEO of OpenNebula)
Title	*COGNIT Project: Goals, Expectations and Vision*
Aim	The objective of this presentation was to formally introduce COGNIT to the European ecosystem of research and innovation organisations linked to the EUCloudEdgeIoT coordination and support action, especially to those companies actively involved in ongoing projects related to the MetaOS and Cognitive Cloud topics of the HE programme (Cluster 4).
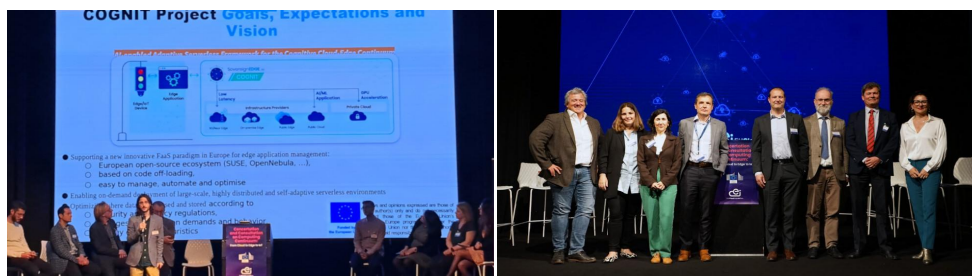
[PRESENTATION] *VIII PTPiREE Conference*

Website	http://pomiary.ptpiree.pl/pliki-do-pobrania
Date	June 1, 2023

Location	Kołobrzeg (Poland)
Description	The Polish Power Transmission and Distribution Association (PTPiREE) was established in August 1990 as an association of distribution and transmission network operators. It works for the transformation of the Polish power industry, aiming to improve the operational efficiency of the power network, as well as the quality of services and customer service. PTRiREE organised this VIII Scientific and Technical Conference on Measurements and Diagnostics in Power Networks.
Speaker	● Kaja Swat (Energy UC Leader @ COGNIT | COO @ Phoenix)
Title	*Projekt COGNIT - innowacyjne podejście do zarządzania wykonywaniem kodu na przykładzie liczników energii*
Aim	The objective of this presentation was to introduce the COGNIT Project to the Polish industrial ecosystem around the PTPiREE and to explain how the Energy Use Case led by Phoenix will demonstrate the capabilities of edge computing to support the ongoing transformation of the energy sector by moving from a hierarchical, centralised structure towards a more distributed way of managing energy assets and networks.

[PANEL] *Data Week 2023*

Website	https://data-week.eu/session/building-a-cognitive-cloud-edge-continuum-for-next-generation-data-processing-applications
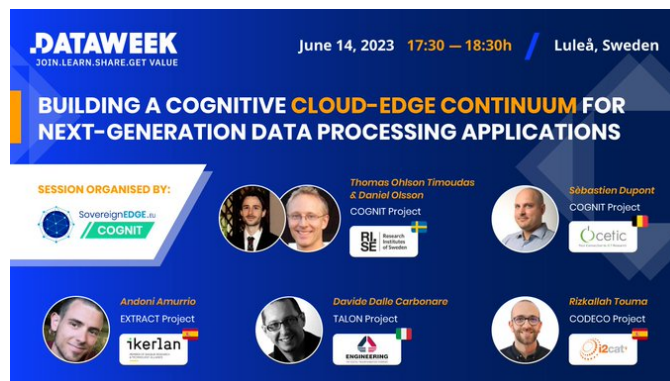
Date	June 14, 2023
Location	Luleå (Sweden)
Description	Data Week 2023 is the spring gathering of the European Big Data and the data-driven AI research and innovation communities. During the event, the participants share knowledge and results, discuss topics of common interest, find synergies, build new collaborations, and identify new challenges and recommendations.
Speakers	- Thomas Ohlson Timoudas (WP5 Leader @ COGNIT | Researcher @ RISE) - Daniel Olsson (Testbed Admin @ COGNIT | Senior Researcher @ RISE) - Sébastien Dupont (Cybersecurity UC Leader @ COGNIT | Research Engineer @ CETIC) - Rizkallah Touma (Researcher @ CODECO | Research Lead @ i2CAT) - Andoni Amurrio (Researcher @ EXTRACT | Researcher @ Ikerlan) - Davide Dalle Carbonare (Researcher @ TALON | Senior Researcher @ Engineering Ingegneria Informatica)

Title	*Building a Cognitive Cloud-Edge Continuum for Next-Generation Data Processing Applications*
Aim	In this session organised and chaired by COGNIT, speakers from several EU-funded research and development projects from the EUCloudEdgeIoT ecosystem (i.e. COGNIT, CODECO, EXTRACT, and TALON) provided an overview of their Cognitive Computing solutions, including the next-generation MetaOS for the smart IoT as well as AI-enabled computing continuum cloud-edge platforms. This panel offered participants a unique opportunity to explore synergies between ongoing research and innovation projects funded by the European Union.

[PANEL] *OpenNebula Conference 2023*

Website	https://app.swapcard.com/event/opennebulacon2023/planning/UGxhbm5pbmdfMTM2MTY5MQ==

Date	June 22, 2023
Location	Virtual Event
Description	Born back in 2013, and following a virtual format since 2022, the OpenNebula Conferences are educational events that serve as meeting points for cloud users, developers, administrators, integrators and researchers, featuring talks with first-hand experiences and use cases. They also include hands-on tutorials and panel discussions that provide an opportunity to explore future developments. More than 40 speakers from 30 different organisations, and hundreds of attendees, have contributed to this year's special 10th edition of the OpenNebulaCon with their expertise, use cases, technical skills, and unique vision about the present and future of open source cloud and edge computing.
Speakers	• Idoia de la Iglesia (WP3 Leader @ COGNIT | Team Leader, IoT & Digital Platforms @ Ikerlan) • Paul Townend (Scientific Coordinator @ COGNIT | Associate Professor @ UMU) • Thomas Ohlson Timoudas (WP5 Leader @ COGNIT | Researcher @ RISE) • Ruben S. Montero (Researcher @ COGNIT | CTO @ OpenNebula) • Dan Bason (Software Engineer @ SUSE)
Title	*Artificial Intelligence for the Edge Cloud*
Aim	In addition to reducing latency, improving security, and optimising resource consumption, this panel discussion organised by COGNIT looked at how Artificial Intelligence is expected to enable highly-distributed edge cloud architectures to be more flexible and adaptable to the changing needs of IoT/edge application developers.
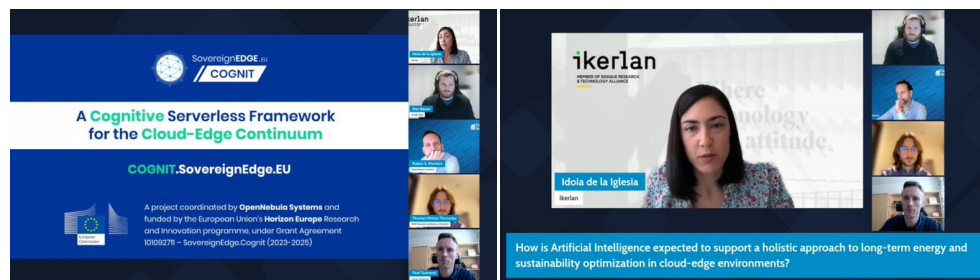
6.4. Press Releases

We have published one Press Release during the reporting period, targeting a General Public audience. These actions also help us to create awareness and credibility among the European research and innovation community and to promote the Project among our potential user base.

All press releases published during the execution of the COGNIT Project will consistently use a specific header image in which both the URL of the project website and the standard acknowledgement to the European Union's Horizon Europe programme will be present. This banner feeds the social snippet—the preview of a page that is used when posting it on social media—when sharing the link to the press release on a social media platform.

Figure 6.1. Standard header image for press releases published by COGNIT.

Aggregated Impact [M1-M6]	
Published PRs	1
Average distribution	Belgium: 93 targets Spain: 510 targets
Average media reprints	214

European project COGNIT releases the Architecture of its AI-enabled Serverless Framework for the Cloud-Edge Continuum	
Link	https://www.einpresswire.com/article/641328332/european-project-cognit-releases-the-architecture-of-its-ai-enabled-serverless-framework-for-the-cloud-edge-continuum

Date	June 27, 2023
Aim	In this press release, OpenNebula (as Coordinator of the Project) announced that COGNIT had released the first version of the Reference Architecture that is driving the open source implementation of its AI-enabled adaptive serverless framework for the Cognitive Cloud-Edge Continuum.

6.5. Project Deliverables

Apart from other repositories (see D1.1 for more details), all public deliverables can be downloaded from the "Resources" section on the project website:
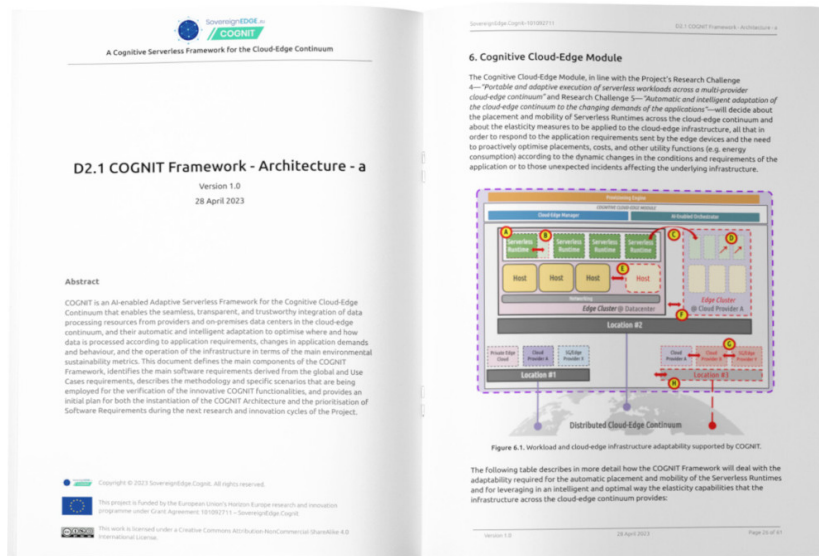

Figure 6.2. Detail of the Resources section on the project website.

Aggregated Impact [M1-M6]	
Published deliverables	2
Total views	38

D2.1 COGNIT Framework - Architecture

Link	https://cognit.sovereignedge.eu/wp-content/uploads/2023/05/D2.1-COGNIT-Framework-Architecture-a.pdf

Date	April 28, 2023
Aim	This document defines the main components of the COGNIT Framework, identifies the main software requirements derived from the global and Use Cases requirements, describes the methodology and specific scenarios that are being employed for the verification of the innovative COGNIT functionalities, and provides an initial plan for both the instantiation of the COGNIT Architecture and the prioritisation of Software Requirements during the next research and innovation cycles of the Project.

D5.1 Use Cases - Scientific Report

Link	https://cognit.sovereignedge.eu/wp-content/uploads/2023/05/D5.1-Use-Cases-Scientific-Report-a.pdf
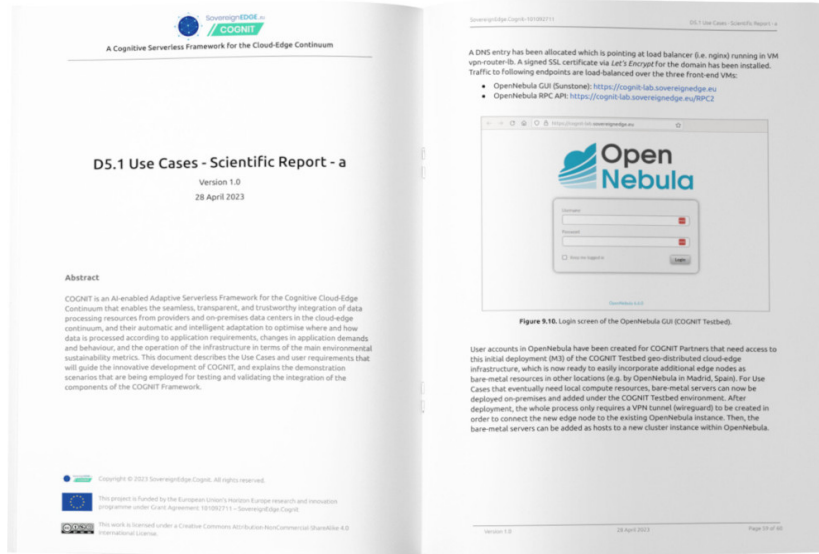
Date	April 28, 2023
Aim	This document describes the Use Cases and user requirements that will guide the innovative development of COGNIT, and explains the demonstration scenarios that are being employed for testing and validating the integration of the components of the COGNIT Framework.

6.6. Publications

Apart from scientific publications and other materials to be produced during the execution of the Project (see D1.1 for more details), COGNIT will use commercial publications in online magazines and blogs to communicate relevant information about the Project:

| **[NEWSLETTER]** *Madrid Tech Show*	
Link	https://www.cloudexpoeurope.es/noticias/el-proyecto-cognit-de-opennebula-y-sovereignedgeeu-seleccionado-por-la-comision-europea-para-impulsar-el-continuo-cloud-edge
Title	*El proyecto COGNIT de OpenNebula y SovereignEdge.EU seleccionado por la Comisión Europea para impulsar el continuo cloud-edge*
Date	August 31, 2022
Aim	This commercial publication, which preceded the official start of the Project, targeted the tech & cloud communities in Spain and was used to announce the upcoming start of the Project in January 2023 and to celebrate the role of OpenNebula as Project Coordinator of this successful Horizon Europe action.

6.7. Social Media Posts

As mentioned before, social media platforms (i.e. LinkedIn and Twitter) are being used by COGNIT as an instrument to raise awareness about the Project and the Cognitive Cloud topic in Horizon Europe, and to communicate specific messages to the Project's target audiences. All posts generated by COGNIT will use the unique hashtag **#COGNITproject**.

Aggregated Impact [M1-M6]		
Twitter	Number of posts	15
	Total impressions	7,600
LinkedIn	Number of posts	14
	Total impressions	8,100

We include in this report only a few examples of the social media posts generated by the Project, illustrating the tone and approach we are using in these communication channels:

[TWITTER] *Example #1*	
Link	https://twitter.com/SovereignEdgeEU/status/1609943126285897728
Date	January 2, 2023
Aim	This post announced on social media the official start of the COGNIT Project, offering some basic information about its objectives, the approach to the

research challenges, the domains in which the validation use cases come from, and the composition of the Consortium.

[TWITTER] *Example #2*

Link	https://twitter.com/SovereignEdgeEU/status/1616362177664778241
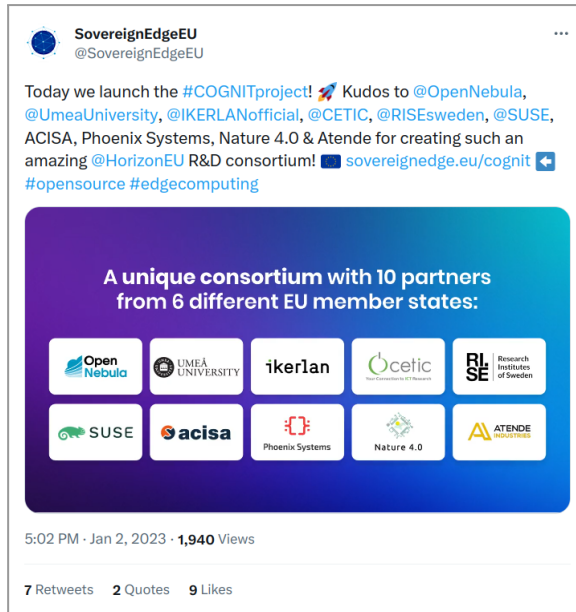
Date	January 20, 2023
Aim	This post announced the successful celebration in Brussels of the Project's kick-off meeting, which brought together 24 members of the COGNIT team from across all 10 partners in the Consortium.

[LINKEDIN] *Example #1*

Link	https://www.linkedin.com/feed/update/urn:li:activity:7018592638211682304

Date	January 10, 2023
Aim	This post announced the successful celebration of a virtual kick-off event on January 2, 2023, which marked the official start of the COGNIT Project.

[LINKEDIN] *Example #2*

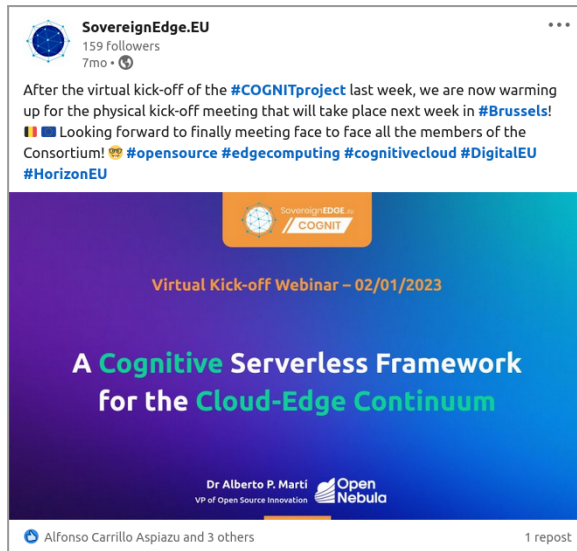|	
Link	https://www.linkedin.com/feed/update/urn:li:activity:7026085221192060929

Date	January 31, 2023
Aim	This post announced the successful celebration in Brussels of the Project's kick-off meeting, which brought together 24 members of the COGNIT team from across all 10 partners in the Consortium.

6.8. Webinars & TechDays

In parallel to the public training sessions and webinars that the Project will organise during its execution, we have already launched a series of internal webinar to explore and discuss among the COGNIT partners a number of specific topics that are relevant to the Project:
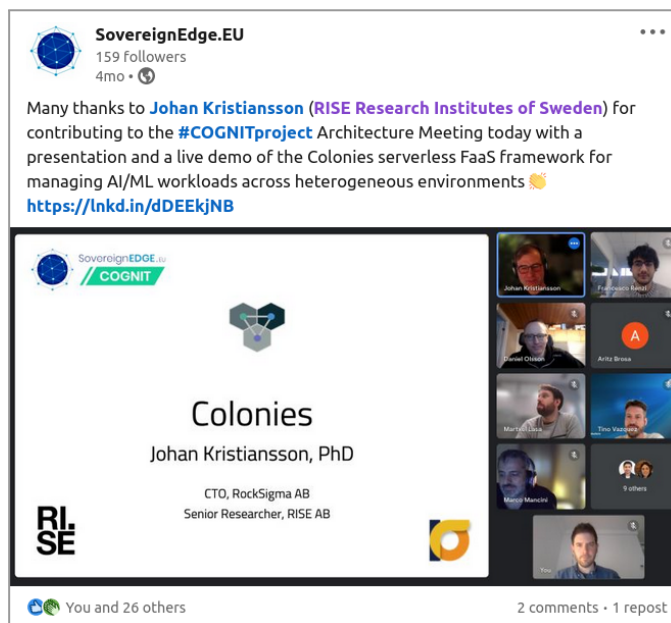
Aggregated Impact [M1-M6]	
Number of events	2 Internal Webinars
Number of participants	35

| [INTERNAL WEBINAR] *Colonies Project*	
Speaker	● Johan Kristiansson (Researcher @ COGNIT | Senior Researcher @ RISE)
Date	March 14, 2023
Description	This internal webinar for COGNIT partners was aimed at sharing the previous experience of RISE researchers in the use of serverless FaaS frameworks for managing AI/ML workloads across heterogeneous cloud-edge environments, and explore potential synergies with ongoing R&D projects in this area in which RISE participates.

[INTERNAL WEBINAR] *COGNIT Testbed*

Speaker	• Daniel Olsson (Testbed Admin @ COGNIT | Senior Researcher @ RISE)
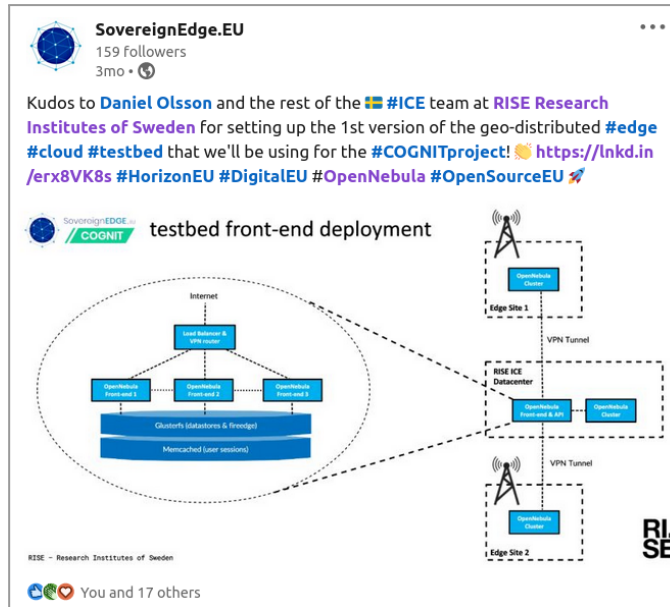
Date	April 27, 2023
Description	This internal webinar for COGNIT partners was used to explore the details of the current Testbed hosted by RISE at their ICE Datacenter in Luleå (northern Sweden) and to share with the rest of the Consortium its main capabilities and the plans to expand this experimental cloud-edge infrastructure by MS2 (M15).

7. Current KPI Status

KPI #	Communication / Dissemination action	Audience	Target	Due Date	KPI Status at the end of M6
KPI6.1	Champion Programme	Industry / Open Source	1	M18	0
KPI6.2	Participation in communities: Linux Foundation, CNCF, and LF Edge	Industry / Open Source	3	M18	0
KPI6.3	Participation in EU initiatives: GAIA-X, EOSC, IPCEI-CIS, and EU Cloud Alliance	Industry	4	M36	0
KPI6.4a	Exhibition booths in relevant open source conferences	Industry / Open Source	3	M36	1 [FOSDEM 2023]
KPI6.4b	Exhibition booths in relevant cloud & edge industry forums	Industry	3	M36	0
KPI6.4c	Presentations in open source conferences	Industry / Open Source	6	M36	2 [FOSDEM 2023] [OpenNebulaCon 2023]
KPI6.4d	Presentations with demonstrators from use cases in relevant cloud & edge industry forums	Industry	6	M36	0
KPI6.4e	Technical workshops in relevant open source conferences and industry forums	Industry / Open Source	3	M36	0
KPI6.4f	Webinars and Techdays	Industry	9	M36	0
KPI6.4g	Project events	Industry	2	M18, M36	0
KPI6.5a	Papers published in relevant scientific journals	Academia	9	M36	0
KPI6.5b	Presentations or special tracks in relevant scientific conferences	Academia	6	M36	0
KPI6.5c	Research workshops in relevant scientific conferences.	Academia	3	M36	0
KPI6.6a	Commercial publications in online magazines and blogs	Industry	9	M36	0
KPI6.6b	Press releases	General Public	6	M36	1 [June 27, 2023]
KPI6.6c	Publications in newspapers	General Public	6	M36	0

Table 7.1. Status of Communication & Dissemination KPIs at the end of the reporting period.