

Autopoietic Cognitive Edge-cloud Services

Deliverable 6.2 1st Communication, Networking Plan, Dissemination Strategy Report

Grant Agreement Number: 101093126





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D6.2 – 1st Communication, Networking Plan, Dissemination Strategy Report

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| 2 | HIRO MICRODATACENTERS B.V. | HIRO | NL |
| 3 | TECHNISCHE UNIVERSITAT DARMSTADT | TUD | DE |
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| 9 | INDEPENDENT POWER TRANSMISSION OPERATOR SA | IPTO | EL |
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List of terms and Abbreviations

| Abbreviation | Description |
|--------------------|--|
| Autopoietic system | A system capable of producing and maintaining itself by creating its own parts. |
| CLOUD | <p>Cloud computing is the on-demand availability of computer system resources, especially data storage (cloud storage) and computing power, without direct active management by the user. Large clouds often have functions distributed over multiple locations, each of which is a data centre. Cloud computing relies on sharing of resources to achieve coherence and typically uses a pay-as-you-go model, which can help in reducing capital expenses but may also lead to unexpected operating expenses for users.</p> |
| EDGE | <p>Edge computing is a distributed computing paradigm that brings computation and data storage closer to the sources of data. This is expected to improve response times and save bandwidth. Edge computing is an architecture rather than a specific technology, and a topology- and location-sensitive form of distributed computing.</p> |
| KPI | Key Performance Indicators |
| SEO | Search Engine Optimisation |
| GA | Grant Agreement |

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Executive Summary

This deliverable outlines a comprehensive Communication, Networking and Dissemination Plan and Activities for the Horizon Europe project ACES, focused on delivering our key messages to our target audiences. Our plan will employ a range of tools in both traditional and digital media channels to ensure the widest possible reach. The goal of the plan is to build awareness on the project and drive a positive impact on society, while also highlighting the consortium and the European Union commitment to excellence and innovation. We will emphasise our core messages, which revolve around a positive impact on the environmental sustainability and data governance of the European digital economy. Our plan includes a variety of measures and activities to identify the consortium members' roles, analyse stakeholders' needs, create a community around ACES, and establish and maintain an effective communication and dissemination. Additionally, a proactive analysis of the socio-technical landscape functional to developing a sustainable exploitation plan for ACES is included. It is anticipated that ACES's Communication, Networking Plan, and Dissemination Strategy and Activities will ensure effective communication with relevant stakeholders. To ensure that it stays relevant over the project's duration, the update of this document is planned at M12, M24, and a final version will be compiled for M36.

1. Introduction

This document constitutes the Communication, Networking Plan, Dissemination Strategy Report - hereafter also: the Plan- outlined for the Horizon Europe project ACES (Autopoietic Cognitive Edge-cloud Services). This deliverable outlines the objectives, activities, and resources (i.e., communication tools and channels) needed to ensure that the project's development and results are effectively communicated to all relevant stakeholders. Additionally, the Plan is designed to ensure that the project's results are disseminated in a timely manner, in suitable forms and in the most adequate networks to reach identified main stakeholders, to maximise their impact and benefit for society. Furthermore, the objective of this document is to provide a comprehensive overview of the communication, networking and dissemination activities planned for ACES. The Plan will be developed in alignment with the overall objectives of ACES, specifically the Communication, Networking and Dissemination Plan and Activities draw its objectives from the project and translate them into concrete activities.

The Plan provides guidance on how best to use available resources for effective dissemination of results. This includes identifying appropriate communication channels for different target audiences; developing effective messages for each audience; designing appropriate materials (e.g., brochures or videos); organising and participating in events (e.g., workshops or conferences); engaging with media outlets; monitoring progress against targets; evaluating outcomes against objectives; and ensuring that all stakeholders are kept informed throughout the process.

In addition to providing an overview of planned activities for dissemination and communication purposes, this document will also outline how these activities can be monitored and evaluated over time. This includes setting up systems for tracking progress against targets (e.g., number of publications or media coverage), assessing outcomes against objectives (e.g., impact on policy or public opinion), measuring effectiveness (e.g., number of downloads or views).

This document is structured as follows: the first section is this introduction; the second section present the overall communication, dissemination, and exploitation plan as well as the stakeholder investment plan. Section three presents the external communication and dissemination and section four the overview of the synergies, at this early stage the foreseeable ones, they will be verified during the project in cooperation with the project partners. Section five provides the details of the communication activities, section six lays out the ACES branding, while in section seven the communication and dissemination channels are presented: the templates and the structures if the press releases. Section eight present the associated monitoring and planning tools for the whole set of WP activities, presenting all the above into a (preliminary) roadmap within a one-year time perspective that includes the output of a risk analysis. Section nine presents the preliminary conclusions.

2. Communication, Dissemination Exploitation and Stakeholders Engagement Plan

The Plan is the result of the work carried out by the Work Package leader and Task Leaders in collaboration with the rest of the partners in the first four months of the project timeline. The collaborative development of the Plan is made necessary by the nature of the activities object of the Plan. The main goal of this plan is to ensure the **effective communication and dissemination of the project's developments and results to both scientific communities and public audiences** through various means. For this reason, the contribution of the ACES consortium is essential to a comprehensive consideration and thorough analysis of the stakeholders as well as tools and channels of communication and dissemination. The Plan is designed to ensure that the project's results and development are communicated and disseminated in a way that is consistent with the project's objectives and goals. The success of the Plan depends on its ability to reach target audiences effectively through multiple channels such as publications, exhibitions, conferences/workshops/seminars. Furthermore, the Plan should also consider web presence to maximise reachability of ACES through and from different platforms (e.g., social media).

The **main specific activities will include the preparation of communication materials**, such as a visual identity, comprising a logo and style in different formats to be applied to all communication materials (flyers, brochures, etc.). A project website will be developed and updated throughout the project. The Plan will emphasise the complementarity of the various actions to minimise overlaps and ensure that one action reinforces the other. The ACES consortium members' online presence and networks are considered with regards to their complementarity to the project as for the efficiency of the use of resources and effectiveness of the communication and dissemination of ACES's results. Monitoring mechanisms, **based on the templates presented in Annex D**, and key performance indicators are carefully selected to track progress against meaningful targets. In parallel, it is important that **all partners are aware of their responsibilities within this process** so they can work together towards achieving common objectives. Hence, the Plan assigns sensible roles and responsibilities to the ACES consortium partners. To achieve the specified goals, the Plan should consider all stakeholders' and target audiences' characteristics and roles within the ACES field of action. Specific tools and channels will be selected according to them, to ensure efficient delivery of the project messages. Finally, significant to the effective execution of a plan is the development of a timeline for action. The Plan jointly considers the action plan and the potential obstacles that might arise during implementation which could limit its effectiveness if not addressed properly from early stages onwards.

2.1 Objectives

ACES' vision is to research an evolution of cloud computing, an edge services cloud with hierarchical intelligence, specifically Autopoiesis and cognitive behaviours, to manage and automate a computing platform, network fabric, storage resources, virtualization, and analytics to increase resilience while managing simultaneous service constraints. This Plan is designed to ensure that the project's results and development are communicated and disseminated in an effective and efficient manner taking into consideration also the needed synergies between scientific audience, industry, and other identified stakeholders. In other words, the Communication, Networking and Dissemination Plan and Activities draw from the objectives and scope of ACES to identify, analyse, and prioritise target audiences and stakeholders, and communicate and disseminate the project's developments

and results, following the careful elaboration of a vision that is consistent with both ACES's objectives and the stakeholders' and target audiences' interests and needs.

The main objective of the plan is to maximise impact of the project through communication and dissemination of the project results and increase awareness to the scientific, industrial, and general public communities. The specific ACES objectives of dissemination and communication are:

Table 1 - Objectives of communication, networking and dissemination as defined in the GA

| ID | Objectives |
|----|--|
| 1 | Disseminate, communicate project concept, developments findings to identified stakeholders by using effective communication means and strategies including interactive |
| 2 | Ensure that all feedback from the relevant communities will be integrated at key timestamps of the project |
| 3 | Create and publish scientific contributions valuable for the research community |
| 4 | Collaborate with other European projects in the relevant topics of ACES |
| 5 | Participate in appropriate events with the ultimate goal to prepare the way for a successful commercial exploitation of the project outcomes |
| 6 | Address the future adoption and ensure the sustainability of the project results taking into account the market trends, the business scenarios and the consortium and partners' strategies |
| 7 | Align the project with existing and emerging standards from the relevant standardisation bodies |

2.2 Monitoring and Key Performance Indicators

To reach the above-mentioned objectives a continuous monitoring scheme is put in place. This includes a set of tools to collect data regarding dissemination and communication activities as well as key performance indicators and targets as a reference to measure said data. Table 2 presents the list of key performance indicators defined in the Grant Agreement together with the respective measure and target objective.

Table 2 - Key Performance Indicators Identified in the GA

| Expected Impact | KPI Target |
|--|---|
| Increased collaboration with other relevant initiatives; synergies establishment for joint research, information exchange and dissemination; increased awareness. | 2 workshops organised, 4 demo events |
| Ideas' gathering and knowledge exchange with relevant communities and initiatives; information about latest technologies/advancements; liaisons with other initiatives; increased awareness. | 20 attended events, 10 events the project presented, 2 project demo booth's |

| | |
|--|--|
| Validation of project's concept, findings and advancement; promotion of results to scientific communities; ideas' gathering and knowledge exchange with relevant communities and initiatives. | 10 conference papers, 4 journal papers, 4 articles in industry magazines |
| Communication of project news, events & results; validation of project's concept, findings and advancements; ideas' gathering and knowledge exchange; attraction of potential client adopters; increased awareness. | 50 industry contact points, 5 industry communities informed about project, 2 webinars |
| Knowledge exchange; mutual validation of results; joint dissemination activities; attraction of potential partners for research collaboration. | 5 projects with synergies, 4 joint activities |
| Communication of project news, events & results; validation of project's concept, findings and advancement; ideas' gathering and knowledge exchange; increased awareness. | 10 internal partner events, 30 links to project website, 4 training sessions |
| Main online information point; communication of project news, events & results; liaisons with other initiatives, projects through links; increased awareness. | 5000 unique visitors, 2 min. Average visit duration, 10,000 pageviews |
| Increasing visibility to stakeholders active in social media; attainment of interest of stakeholders; viral marketing by "word of mouth" through the followers; direct communication mechanism with followers. | 750 accumulative followers, 1000 accumulative posts, 250 interactions |
| Communication of the main project's concepts and advancement in a catchy and easily understandable manner. | 50 posts, 100 interactions |
| Communication of project news, events & results; increased awareness. | 3 press releases |
| Unique branding and visual identity of the project; provision of instant information about the project; creating a unified experience for the audiences targeted; improved communication of results and information provision during events. | 5 project's factsheets/brochures and banners, 9 eNewsletters, 2 videos, 5 blog posts in EC mechanism |

2.3 Consortium roles

The target groups that will guide the identification of stakeholders are defined in the following table. Please note that groups A and C may appear the same, but **in fact are distinguished in that the first one there are individual experts who may be instrumental in facilitating the adoption of cloud-edge systems, the second includes organisations who opt for such systems.**

Group D targets policymakers who potentially belong to all possible levels, since there is no real obstacle to the focus, as well as the deployment of the ACES solutions at any level. One of the first steps of the implementation of the plan is the surveying of the partners to map their network of relationships with policy-makers. In addition to the survey, the identification of policy-makers will derive from the whole external communication and dissemination activities.

Table 3 - Target groups' description and interests

| ID | Members | Description | Interest |
|----|--|--|--|
| A | Industry 4.0, smart Healthcare, smart Cities; smart Agriculture | Individual professionals interested in using Edge-cloud for the digital transformation of their organisation; companies participating to cascade funding | Utilisation of project's results in everyday operations, Enhance assets' recognisability, Support activities via assets' contribution in the platform, Inspiration for new ideas, services, and applications, Participation in the project's engagement, capacity building and dissemination activities and events, Use/Building of shared infrastructures and interoperability, Getting financial support for innovation. |
| B | Researchers, Research Associations and Infrastructures related to ACES | Researchers, research performing organisations, research Infrastructures and e-Infrastructures related to ACES | Utilisation of project's results in everyday operations, Enhance assets' recognisability, Support activities via assets' contribution in the platform, contribute with barriers/framework conditions, Monitor the project's code in GitHub, Participate in project events, Inspiration for new ideas, services, and applications, develop new value adding services, Participation in the project's engagement and dissemination activities and events |
| C | Industry (Enterprises/ Entrepreneurs/ Developers) | For-profit enterprises, entrepreneurs willing to exploit and/or build new services and apps over ACES project | Contribute with barriers/framework conditions, Monitor the project's code in GitHub, participate in project events, Inspiration for new ideas, services, and applications, Develop new value adding services, Participation in the project's engagement and |

| | | | |
|---|--|---|---|
| | | | dissemination activities and events |
| D | Policy Makers, Funders & Standardisation Organisations | Policy-makers e.g. EC Directorates and Units, Ministries, Governments, Regulatory Agencies, Standardisation Organisations | Evaluation of the project's Social-Technological-Economic- Environmental-Political (STEEP) aspects, Definition of future research and innovation directions based on project's acquired knowledge, Inputs for standardisation activities, Participation in the project's engagement and dissemination activities and events |
| E | Pertinent Projects and Initiatives | Participants, project partners, stakeholders in Horizon Europe projects, pertinent projects and initiatives, GAIA-X Association | Identification of common topics, Synergies and collaborations for results promotion, enhancing innovation through results' combination, Definition of future research and innovation directions based on project's acquired knowledge, Inputs for standardisation activities, Co-organisation of events |
| F | General Public | Civil society representatives, youth, public, anyone interested in the project | Utilise the project's results, Understand the benefits offered by ACES project and the European research and innovation initiatives in general, Take part in the activities of the project |





2.4 Personas

To help the visualisation of the different target groups and their physical members the communication, dissemination and exploitation will use the concept of personas. They represent a specific target audience for a product or service constructing an imaginary character created to represent the interests, needs, and behaviours of a particular group of people.

They act as a **common reference to all ACES team members** to properly link different elements of the product or communication strategy to different characteristics. The personas are the key stakeholders who would be interested in learning more about the project and its goals and help tailoring the ACES messaging and outreach efforts accordingly.

The exploitation phase of a project is when target audiences are sought to be transformed into leads, investors, and partners, thereby making the use of personas the closest to its original application. Most importantly, the communication and dissemination phases hold the potential to provide invaluable insights for the refinement of ACES personas supporting the endeavours of the exploitation phase.

Table 4 - Personas

| PERSONAS | | |
|---|--------------------|---|
| Persona 1: Susan Melody George (A & C) – Business partners and customer | | |
|  | Name | Susan Melody George |
| | Age | 38 to 55 years old |
| | Job title | Mid-senior level executive |
| | Level of education | Master's Degree / MBA |
| | Social networks | LinkedIn and Twitter |
| | Keywords | Cloud-to-edge infrastructure, network architecture, data operations, energy-optimisation, latency |
| Persona 2: Joaquim de Almeida (F) – General public | | |
|  | Name | Joaquim de Almeida |
| | Age | 28 to 62 years old |
| | Job title | Technology and platform user |
| | Level of education | Bachelor to Master |
| | Social networks | Twitter, LinkedIn, YouTube, Mastodon |
| | Keywords | Cloud, edge computing, artificial intelligence applications, state-of-the-art [technology_name], data privacy, data sovereignty |
| Persona 3: Lotte Verbeek (B & E) – Public or private researchers | | |
|  | Name | Lotte Verbeek |
| | Age | 25 to 60 years old |
| | Job title | Researcher / Innovation manager |
| | Level of education | Doctorate (e.g. PhD, EdD) |
| | Social networks | LinkedIn, Twitter, GitHub |
| | Keywords | Horizon Europe projects, green data operations, semantic interoperability, distributed knowledge graph |
| Persona 4: Bruno Ganz (D) – Policymakers | | |
|  | Name | Bruno Ganz |
| | Age | 42 to 60 years old |
| | Job title | Policy maker at EU or national level |
| | Level of education | Doctorate (e.g. PhD, EdD) |
| | Social networks | Twitter, LinkedIn |
| | Keywords | Data sovereignty, Green New Deal, European data spaces, European Chips Act, European Interoperability Framework |

2.5 Communication funnels

The ACES communication funnel depicted below is used to show how the communication process **will start targeting a broader audience**, also considering the need to diffuse awareness and knowledge of Edge-cloud services, their existence, and general benefits, moving on **to more specialised**, and therefore restricted audiences, with specialised information needs. At the

beginning there is the **wide target audience** receiving a message and the funnel goes down to the operations of customers or advocate retention. The funnel begins with the **broadest audience at the top** and narrows down as it progresses through each stage.

The purpose at the top of the funnel is creating **awareness** to **spread** the understanding of what ACES is and why people should care about it. Once awareness has been created, we move on to consideration where **potential customers** are identified and targeted with more detailed information about ACES's features and benefits.

The funnel also includes **more specialised groups and audiences**, focusing on the different aspects of technical design, integration, regulation and governance.

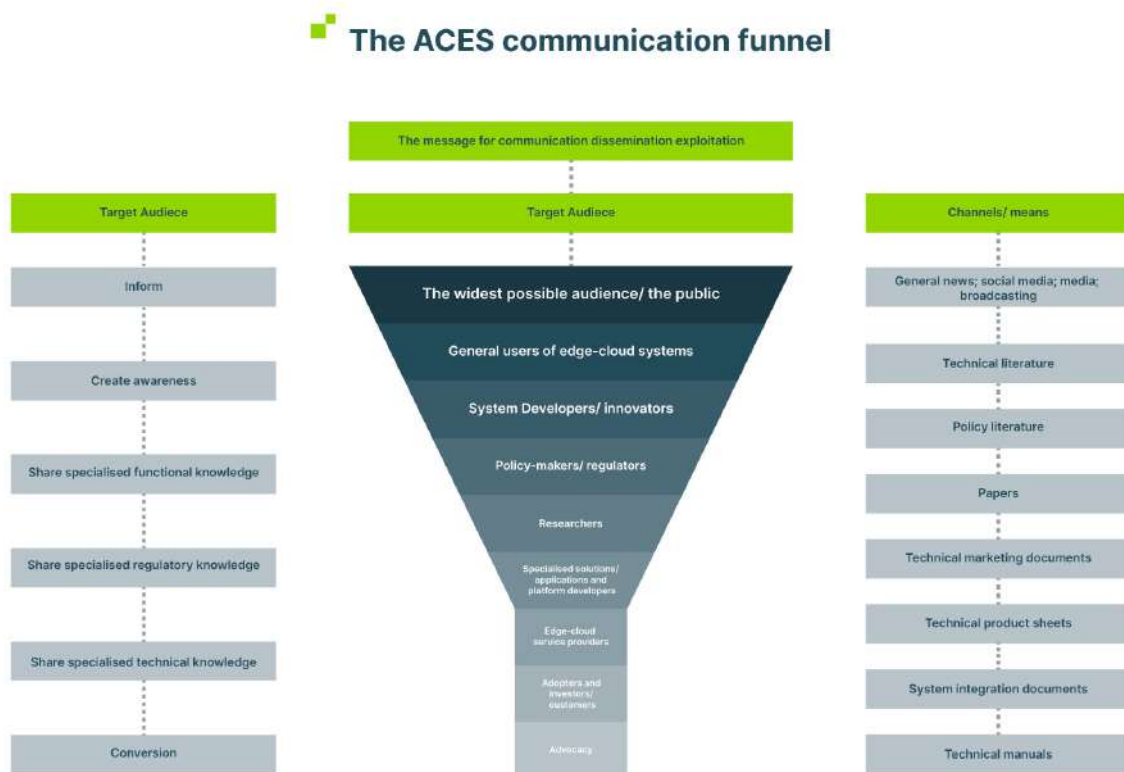


Figure 1 - The ACES communication funnel

2.6 Briefing for communication and dissemination

The communication and dissemination of ACES will be divided into four phases:

1. **Raise Awareness:** This phase includes the creation of awareness about the project by using various channels such as social media platforms, project website, brochure, flyer, banner, poster, etc.
2. **Inform and Interact:** This phase includes the provision of detailed information about the project to the identified stakeholders through webinars, workshops, or other interactive sessions such as roundtables and panels.
3. **Promote:** This phase includes the promotion of the ACES benefits to potential users through targeted campaigns such as email campaigns or advertisements in relevant publications/websites/blogs etc., as well as engaging with stakeholders (e.g., through

workshops, high-level roundtables, etc.) to spread awareness about the project's objectives and benefits.

4. **Post-Project Communication:** This phase includes communications and updates on the progress made during the project implementation and after such as evaluation reports or success stories related to ACES's contribution towards ensuring privacy needs of data subjects, reducing power consumption for large scale data analytics, and improving performance of distributed analytics.

Communication activities include **all actions that contribute to spreading the project's results within and beyond the consortium and to direct stakeholders**, maximising the project's contribution to innovation.

The dissemination activities will deal with the spreading of **research, scientific and technological knowledge generated within the project**, aiming to ensure both a mid- and long-term impact by informing the European target audience. ACES communication and dissemination is based on

- **concrete and measurable objectives** for communication linked to target groups.
- Implement a **sound communication strategy and plan**.
- Define and set up the different **channels and media** to implement the communication plan and reach the targeted audiences.
- Define the **implementation guidelines of communication and dissemination actions**, so that the partners will be able to deploy their own actions.
- **Monitor the impact** of the communication to check its effectiveness and define and implement corrections.
- **Maximise visibility of the project** within and beyond the project's consortium.
- **Sharing** of the research, scientific and technological **knowledge generated**.
- **Liaise** with other projects and initiatives.
- **Engage the targeted audiences to get feedback and validation**.
- Attract potential users/clients and stimulate the appropriate market segments to support the project's exploitation strategy

3 External communication and dissemination

The Grant Agreement provides a clear briefing on the communication and dissemination to be undertaken by ACES: Different communication objectives will be addressed to meet the knowledge levels, needs and expectations of the target audience groups through their preferred communication channels using **Specific, Measurable, Attainable, Relevant, Time-based** (S.M.A.R.T.) goals. All partners commit to undertake the activities that will be further detailed at the beginning of the project and that will be revised along the project as needed to maximise the expected impact. Well defined **procedures** will be set up to ensure the quality of the communication, in terms of forms and content. In the project communication strategy, we will assign responsibilities to partners based on their domain of expertise and existing network. The project will be active in a **range of communities of interested stakeholders and potential users** with knowledge and data transfer to ensure the continuation of research and the increased take-up of results after the project.

The project's communication activities include **continuous monitoring of the achieved impact** (in terms of communication) and measures to increase the size of the community, along the project." Dissemination activities are characterised by active, a priori awareness and validation by the targeted audiences and will be collectively performed by all partners, according to each partner's profile and expertise. The **domain market partners will approach relevant sectors**, as well as their distributors and client networks, while the academic and research partners will focus on

disseminating the project results towards research institutes and universities ACES Europe, which constitute a key target audience. Additionally, **public administration organisations** in the consortium and organisations whose main customers are public bodies will engage with relevant organisations in their field. With regards to this stakeholder, it is important to note that it constitutes a potential user and a key stakeholder for the impact of ACES on policy making as well.

3.1 Dissemination

Dissemination will play a central role in the project that aims to **share scientific results, contribute to the advancement of the state-of-the-art knowledge and technology, and maximise the results' impact on society**. For this reason, a plan for dissemination is outlined and detailed guidelines on specific types of dissemination are proposed.

3.1.1 Plans for dissemination

Table 6 reports the activities foreseen per each persona in each phase of the project's duration identified above. Differences emerge in the different use of social media, which is reported in the appropriate section.

Table 5 - Dissemination plan overview

| Persona | 1 – Raise awareness | 2 – Inform and interact | 3 - Promote |
|---------------------|---|---|--|
| Susan Melody George | LinkedIn posts, on-page SEO, blog posts, landing pages, events, newsletters | CTA on LinkedIn, website and landing pages | Tailored newsletter and marketing automation |
| Joaquim de Almeida | Social media posts, on-page SEO, blog posts, landing pages, workshops | CTA on the website, links on social media and landing pages | Tailored newsletter and marketing automation |
| Lotte Verbeek | Research articles, LinkedIn articles, LinkedIn posts, social media posts, events, | CTA on research articles and LinkedIn articles/posts | Tailored newsletter and marketing automation |

| | | | |
|------------|---|---------------------------------------|--|
| | newsletters | | |
| Bruno Ganz | Social media posts, on-page SEO, press releases, blog posts, events | CTA links on social media and website | Tailored newsletter and marketing automation |

The first phase is defined by **raising awareness**. This is an important step in getting the message out to the public. This phase involves **creating and distributing content that informs people about the context of the project and the problem it aims to solve**. The content created and distributed can be in the form of articles, videos, social media posts, and other forms of media. The key point is to create material that can spark interest and convey a message that resonates with each persona's needs. By following this approach common ground between the ACES consortium and its potential stakeholders will be built. **The goal is to create an understanding among people about the issue or cause so that they can make informed decisions about joining the ACES community**. This phase should also be used to measure success by tracking metrics such as website visits, social media engagement levels, or other indicators that can help gauge how well-received the promotion was. During the first phase it is also important to engage with stakeholders to understand their needs and iteratively tailor the communication accordingly. This phase will provide stakeholders with information that will help them better **understand why this project is necessary and especially why it is so for the target audience**. Additionally, this phase will focus on building relationships between stakeholders and creating a sense of trust so that they are more likely to support the project in later stages. By providing clear information about the project's purpose and engaging with stakeholders, this phase helps ensure that everyone involved understands what is being proposed before moving forward. **The second phase consists of informing and interacting**. This phase is designed to ensure that all stakeholders are kept up to date on the progress of the project. This phase involves providing **regular updates to stakeholders about the status of the project**, as well as engaging them in meaningful dialogue about any issues or feedback they may have about ACES's developments. Call To Action (CTA) will be used for this purpose. During this phase, it is important to keep stakeholders informed about any changes or developments that may affect their involvement in the project. Additionally, it is important to provide opportunities for stakeholders to give feedback and ask questions so that they can be involved in decision making processes related to the project. The goal is to keep an effective two-way-street communication channel with stakeholders to nurture a community around ACES.

The **third phase, the promoting phase, aims to increase the visibility and reach of a project's results with a glance at the outcomes and long-term impact**. This phase typically involves activities such as publicising the project's achievements, creating promotional materials, and further engaging with stakeholders. The goal is to yield interest about the project's results and potential for exploitation. However, the main objective is to build on existing interest and collaborate with stakeholders to encourage further investment in its development. Promotional activities can also help to share successful experiences from the project that can be used as models for other projects or initiatives. This helps to ensure that best practices are shared widely so that others may benefit from them.

Ultimately, the promoting phase paves the way for exploitation by increasing visibility and reach while also providing evidence-based examples of success stories from within the project itself. By doing so, it helps to ensure that potential investors have all the information they need to make

informed decisions about whether or not they should invest in exploiting a particular outcome or result within a given project.

3.1.2 Dissemination to policy makers

ACES disseminates its results to policymakers providing them with evidence-based information on which they can base their decisions. This information will include data on how successful the project was, what challenges were encountered, and what lessons were learned throughout its course. By having access to this data, policymakers are better equipped to make informed decisions about future projects or initiatives. **Additionally, dissemination to policymakers allows the ACES consortium to showcase the importance of the ACES solution for policy.**

Actually, ACES is a highly relevant project for policy-makers, who are an important part of the ACES stakeholder group. The dissemination towards policy-makers is necessarily based on policy briefs, which will lead to the posts in the EC mechanisms (CORDIS, EU Research Magazines, EU events).

Public officials will be targeted, producing policy briefs or documents based on them, using the project dissemination channels (social media) and engaged through events (workshops, including demos of the solution). The activity of the WP leader (DataPower), together with the project's consortium will be crucial to identify and grasp relevant networks and events at European and national levels. **European Union institutions will be targeted through policy briefs in cooperation with linked projects** and DataPower will facilitate and lead the production of these briefs. Organising common events and using the respective communication tools such as newsletters to publish information on the project – will be used to widen (among other stakeholders) the audience of policy officers. Also, close communication and cooperation with the European Commission's project officers will be crucial to get into relevant networks and events. **A list of events in which ACES partners intend to participate** for dissemination to stakeholders of the policymaking community, among others, is provided in **Annex C**.

3.1.3 Scientific and technical dissemination

Scientific dissemination involves communicating the ACES research results to other scientists, academics, and experts in the field. Technical dissemination involves communicating research results to a broader audience outside of academia, which is nonetheless knowledgeable on technical concepts. The primary goal is to maximise the impact of ACES's research results. This can be achieved by publishing the findings in peer-reviewed journals, presenting them at conferences, and making them available online. Additionally, other researchers should be able to build upon ACES's results and make further advances in their own research. Finally, disseminating ACES's findings makes them a common good that everyone has access too regardless of their background or resources. It ought to be clarified that the latter aspect is tied to open publications. ACES aims to advance the state-of-the-art in the development of the edge-services cloud stack and implement autopoiesis cognitive frameworks. ACES will:

- Innovate and extend limited capabilities and autopoiesis cognition of existing services;
- Develop new autopoiesis cognitive edge-services;

Once ACES's results become relevant for archival journals, **the consortium will aim to publish high-level articles in some of the most relevant journals related to the project topics**. These publications will inform about project objectives, including the main service system specifications and the results achieved in order to reach potential users outside the consortium. **Academic and research partners will participate in external European and international scientific conferences and events to show the project developments and achievements**. International academic networks will be used as an awareness and dissemination channel. A non-exhaustive selection of international journals that are best suited for publishing ACES-funded scientific articles can be found in Annex B. In line with the project approach, the journals listed are multi-disciplinary and cover different scientific areas.

Furthermore, a selection of forthcoming international conferences, covering different scientific areas, confirmed or under consideration by ACES partners can be found in Annex C.

3.1.4 Private sector dissemination

ACES targets the private sector, more specifically the industry 4.0 and technology providers and developers, to raise interest in the technologies employed in the project, perform connections between the organisations developing these technologies and consortium members, and facilitate technology creation. This audience will be a critical part of the dissemination because of the importance of directly addressing SMEs, start-ups, and digital innovation hubs (both national and European) to ensure technical take up by competitive players. The participation in trade fairs and other dissemination channels (e.g., social media) will be the primary channels to reach them. In addition, to generate awareness within the business community, specific workshops and events will be organised to spread the innovative project results. Furthermore, a non-exhaustive list of events identified for dissemination to private sector stakeholders can be found in Annex C.

3.1.5 ACES use cases results in dissemination campaign

The dissemination of ACES outputs will make the knowledge developed throughout the project available to wider audiences. To reach key stakeholders in the research community, industry, commercial actors, professional organisations, policymakers and citizens' organisations at the local level, ACES will carry out demonstrations, training, workshops, and social media campaigns in the regions where the use cases will take place, namely: Cyclades, Crete, and Attica.

4 Synergies with other initiatives and projects

Table 7 represents a first list of initiatives of interest for ACES. An extended list is available in Annex A. ACES is a complex and sophisticated technological project, with a lot of technical ramifications and the potential of linking with numerous other EC-supported initiatives in the realms of Cloud, IoT and Edge. At the time of the issue of this deliverable the technical blueprint is being issued and the clear picture of links and potential connections and synergies will be consolidated.

The map of relations is particularly important to take advantage of externally generated knowledge as well as make available the ACES-generated knowledge to other projects and initiative that can take advantage. The links and synergies will be particularly important in the exploitation phase, but the mapping of solutions, outcomes and stakeholder/target groups will already be relevant in the communication and dissemination phase.

Once the ACES project will be more clearly specified in terms of technological solutions, it is expected not long after the definition in the workshop consolidating the blueprint, the final map of related initiatives will be defined, the initiatives characterised (in terms of advance, results and impacts) and the lines of connection will be elaborated.

Table 6 - List of related initiatives (partial)

| Initiative's name | Description |
|---|---|
| EUCloudEdgeIoT: community and open-source support | The EUCloudEdgeIoT.eu initiative aims to realise a pathway for the understanding and development of the Cloud, Edge and IoT (CEI) Continuum by promoting cooperation between a wide range of research projects, developers and suppliers, business users and potential adopters of this new technological paradigm. |

| | |
|---------------------------|--|
| | <p>OpenContinuum supports the cloud-edge-IoT domain by focusing on the supply side of the computing continuum landscape, fostering European strategic autonomy and interoperability through an open ecosystem for the computing continuum, with open source and open standards.</p> |
| INCODE | <p>RIA from the Swarm Computing call; Highly scalable infrastructure management layer; Open and extensible programming toolset for highly efficient applications on edge-connected nodes; Trusted, scalable framework for data distribution and IoT; Use Cases: Smart Logistics, Utilities Inspection (HV substation with IPTO), factory worker assistant, Disaster Recovery (PPDR)</p> |
| FluidOS | <p>RIA from the Meta-OS call. Flexible, “fluid/liquid” resource management; AI-Enabled Clouds; Zero-Trust security paradigm; Open Source strategy and flexible business models; Use Cases: Intelligent Power Grid, Smart Viticulture, Robotic Logistics.</p> |
| TaRDIS | <p>RIA from the Swarm Computing call: Support decentralized intelligence for heterogeneous swarms. Language-independent, event-driven programming model with distribution abstractions and decentralised ML primitives. IDE for correct-by-design heterogeneous swarms. Use Cases: Smart charging, smart homes, LEO satellites, factory shop floor digitalisation</p> |
| GLACIATION | <p>It is developing a platform that reduces energy consumption for data processing and analytics through AI-enforced minimal data movement operations. This platform will enable organisations to deploy and manage analytics across the edge-core-cloud continuum in a secure, energy efficient, and simple manner. This is made possible by a Distributed Knowledge Graph (DKG) that spans across the edge-core-cloud continuum.</p> |
| BRAINE | <p>BRAINE is an Ecsel JU-funded project, which develops a Big data processing system and Artificial Intelligence at the Network Edge. The ECSEL Joint Undertaking - the Public-Private Partnership for Electronic Components and Systems – funds Research, Development and Innovation projects for world-class expertise in these key enabling technologies</p> |
| KEA Kinetic Edge Alliance | <p>Ecosystem of companies and organizations in edge computing working together to comarket, push new deployments forward, and provide thought leadership in the industry.</p> |
| OGA Open Grid Alliance | <p>Ecosystem of companies developing technologies to create cloud-like competitive Edge services through upcoming edge stakeholders including end users. Edge-services that support new classes of applications for</p> |

| | |
|--------------|---|
| | billions of intelligent devices, their data, and the new networking infrastructure that underpins their seamless operation. |
| GAIA-X | Developing a trustworthy and sovereign digital infrastructure for Europe in which data can be shared and stored under the control of data owners and users. |
| DESIGNSCAPES | Exploit the generative potential of urban environments in the highest possible number of European Cities by encouraging the uptake, upscaling and further enhancement of design enabled innovations by existing enterprises, start-up companies, public authorities and agencies, and other urban stakeholders. |
| DECIDO | Demonstrates ground-breaking impact of the adoption of cloud infrastructure to gain access to shared data in the field of Evidence Based Policy Making. DP personnel will re-use the assessment methodology. |
| ETAPAS | Introduces a practical framework, supported by a prototypical software platform, to offer a first-time assessment methodology capable of measuring and mitigating ethical, societal and legal risks. DP personnel is involved in ETAPAS and will re-use the assessment methodology. |
| ACROSS | Proposes a novel framework aiming to substantially complement SDG and Your Europe portal by leveraging the advanced capabilities of Cloud, privacy-preserving, semantic interoperability, and mobile technologies, to build the next generation Public-Services ecosystem while maintaining the highest privacy level. DP personnel is involved in ACROSS, and it will re-use the communication, dissemination, exploitation and standardization methodologies. |
| CPSWARM | Project handles complex systems of CPS (cyber-physical systems) with new tools to support engineering of CPS swarms and generate collective behaviour capable of solving real-world problems (swarms of agents, robots). The swarm coordination methods are relevant to ACES and will be extended to heterogeneous swarms of microservices/resources across the edge. |
| BugWright2 | Swarm intelligence algorithms to yield autonomous behaviour of different device swarms. The project will be synergetic to ACES edge-wide coordination of services. |
| SWILT | Project in which nature-inspired swarm rules and agent-based swarm modelling improve scheduling and transportation in I4.0 and logistics. The first project in which heterogeneous swarms are modelled for edge/cloud-device orchestration, etc. |
| MESON | Modelling and Engineering of Self-Organizing Networks based on evolutionary methods (e.g., genetic algorithms, |

| | |
|----------|---|
| | neural networks) for the design of self-organizing systems will be extended to heterogeneous swarms of devices/agents/services within ACES. |
| DAIRO | Boost European Artificial Intelligence (AI), Data and Robotics research, development and innovation and to foster value creation for business, citizens and the environment. |
| FIWARE | Supplying a cornerstone function required in any smart solution; Interfacing with the Internet of Things (IoT), Robots and third-party systems. Context Data/API management, publication, and monetization. Processing, analysis, and visualization of context information. |
| ELASTIC | Developing a novel software architecture for extreme-scale analytics. The project software architecture demonstrated how edge and fog computing can lay the technology foundations for advanced mobility systems and autonomous transport networks. SIXSQ's edge-to-cloud and edge-to-edge software and managed services forms the core of the software infrastructure binding together mobile (trams) and fixed (tram stops and warehouse) assets. |
| 5GEMERGE | Create and demonstrate a reference architecture to provide an edge-to-cloud solution using satellite broadcast to deliver smart multimedia content directly to 5G communication infrastructure. The project, partly funded by ESA, will leverage SIXSQ's edge-to-cloud and edge-to-edge software to integrate the different testbeds. SIXSQ is also leading the integration and demonstration work-package. |
| 1- SWARM | Developing a modular framework for designing robust Cyber-Physical Systems-of-Systems (CPSoS) that meet industrially accepted open standards. SUPSI is leading the development of real-time AI algorithms to improve the smartness of the CPSoS edge devices. |
| AlgoRNN | Design Neural Networks and related machines capable of learning algorithms. The project focuses on 1) NN-like systems meta-learn entire learning algorithms, and 2) active learning between NN-like systems exploiting algorithmic information contained in the programs running on another. |
| ASSURED | Develops a novel, highly-usable, and resilient cybersecurity, privacy and data protection framework targeted at "Systems-of-Systems" (SoS) enabled ecosystems providing strong system integrity and operational assurance with federated trust, and accountable sharing of complex data flows through Blockchain distributed ledgers & smart contracts. |

| | |
|------------|---|
| SUPERCLOUD | Developed new security and dependability infrastructure management paradigm incorporating User-Centric self-service clouds-of-clouds, where customers can define their own security and privacy protection requirements and avoid provider lock-ins. |
| SyNAPSE | Joint project of Carnegie Mellon University and INESC-ID on synthesis of network accelerators using programmable switching equipment |
| UPVN | Developing user-centric programmable virtual networks |
| NG-STORAGE | Tackling emergent challenges in data storage and management systems with three complementary aspects: 1) Flexible and large-scale partial replication; 2) Self-management of replicas life-cycles; 3) Providing different consistency guarantees when replicating different data objects. |

5 Communication

Communication aims to raise awareness on the project, spark interest and attract potential users, investors, contributors, generate demand, engage with stakeholders and the general public and show the successes of ACES and the European research and innovation at large. For this reason, a plan for communication is developed. **It also includes guidance on the creation of a community of interest, the development of a social media strategy**, as well as specific information on specific tools to support the communication of the project.

5.1 Plans for communication

Table 7 presents an overview of the activities regarding each communication mechanism distributed over the different phases of the project's duration.

Table 7 - Communication plan overview

| Communication Mechanism | 1 – Raise awareness | 2 – Inform and interact | 3 - Promote |
|-------------------------|---|--|---|
| Project's website | Design & development of an intuitive and responsive project's website; search engine optimisation | Regular update of the website content; watch website's analytics to measure impact and provide content of interest | Regular update of the website content; clear visibility of results, demo/application material in an interactive way |
| Social Media presence | Establishment of presence in social media Reproduce relevant content and monitor relevant | Promote project's outcomes and events; interact with followers | Promote project's outcomes and events; interact with followers to |

| Communication Mechanism | 1 – Raise awareness | 2 – Inform and interact | 3 - Promote |
|-------------------------|--|--|---|
| | hashtags; upload public material; follow influencers of the domain; engage to other projects and initiatives | to get feedback; answer on comments and private messages on the various channels; upload public material; reproduce relevant content and monitor relevant hashtags | get feedback; answer on comments and private messages on the various channels; upload public material; reproduce relevant content (more sporadically) |
| Project's blog | Deploy project's blog; provide blog posts related to project's positioning & technologies | Provide frequent blog posts to initiate discussions on specific issues relevant to the project to receive feedback | Publish frequent blog posts to demonstrate and promote project's results |
| Traditional media | Press release to announce the project's launch | Press releases to announce the significant events/results | Press releases to promote the business case of the project's results |
| Communication material | Design logo and project identity; prepare project factsheet, brochure, banner, e-Newsletter and promo video | Prepare revised brochure, banner and frequent releases of e-Newsletter; publish blogs/news in EU instruments (e.g. Cordis News, research EU magazines etc.) | Prepare final brochure, banners, frequent releases of e-Newsletters and video demonstrators; publish blogs/news in EU dissemination instruments |

5.2 ACES community

Building up the ACES community is one of the main goals of the strategic communication plan. **The community will definitely be able to benefit from an open-access content of all the material to be spread in the context of the project.** The project content will be structured to reach all the relevant target groups. Main tools to build and animate the community will be the ACES website, ACES social media profiles, press and media initiatives, leaflets and posters, newsletters, organisation and participation in conferences and other types of events. **Also, the organisation of community events centred around workshops** where participants will collaborate on applying specifying solutions to a targeted context will be useful to engage the community. Regarding the contents mainly directed to the community, special emphasis will be given to information about the results, activities planned and carried out so far, use case development and public deliverables. A specific focus will be also given to the general public to maximise awareness of the project findings and their impact.

5.3 ACES social media strategy

The massive dissemination of the ACES project will also take place through **programmed management of a social media editorial calendar.** ACES's social media channels are YouTube, LinkedIn, Twitter and Mastodon. Each of them was chosen to differentiate the message based on the persona identified above, in order to implement a targeted communication approach. All project partners who have social media accounts will follow each other profiles, reposting or retweeting coherent content, tagging and mentioning the ACES profile. All the social media icons have been included in the footer of the <https://www.aces-edge.eu/> website. The profile pictures contain the official logo. The covers have a clear reference to the homepage and branding of the <https://www.aces-edge.eu/> website. All social profiles have been customised following the same consistency criterion to make themselves immediately recognisable.

The main objective of ACES PROJECT's social media presence is to communicate, disseminate, inform and engage people interested in the proposed topics. The social media pages will mainly be used to drive traffic to the website, where in-depth content will be provided in the blog pages. The idea is that social channels will help push people who are not familiar with the project, but work in the relevant sector, to become promoters of the initiative. A method has been designed for the internal planning of social media development over three years of the ACES project. Four social channels have been opened, all (extremely) varied by audience target: Twitter, LinkedIn, YouTube, and Mastodon. Twitter and Mastodon follow the same logic, but a trend of migration may be gauged from the former to the latter. This appears to be due to Mastodon open-source nature. Besides this, each social network has a different target, so contents will be different in terms of tone and message. Each official ACES social channel will be followed up by all the project partners, and each post will be reposted using mentions and hashtags coherent with project aims. For each content, one persona will be taken into consideration. The idea is that the social channels will help push people that do not know the project to become future promoters. Key information on the management of social media is reported below:

- In-depth dissemination articles on project keywords, Communication results/deliverables (self-referential about the project),
- Official Hashtag: #ACESproject_EU #horizoneu
- Thematic areas hashtags: #cloudservices #cognitiveedge #autopoiesis #AI
- For mention:
 - **Twitter:** @aces_horizon
 - **LinkedIn:** <https://www.linkedin.com/company/aces-horizon/>
 - **Mastodon:** <https://mastodon.uno/@ACES>
 - **Youtube:** <https://www.youtube.com/@aces-horizon>
- Each post written by the ACES profile will contain thematic hashtags as well as links to the website. This will help social-media users to discover the website-by improving its ranking in search engines.
- Repost: each ACES project partner will be able to repost the contents published on official social networks, mentioning and using the official hashtag. This inner work method will generate views and allow social profiles to increase well targeted followers.

A focus on the different social media is provided below.

TWITTER

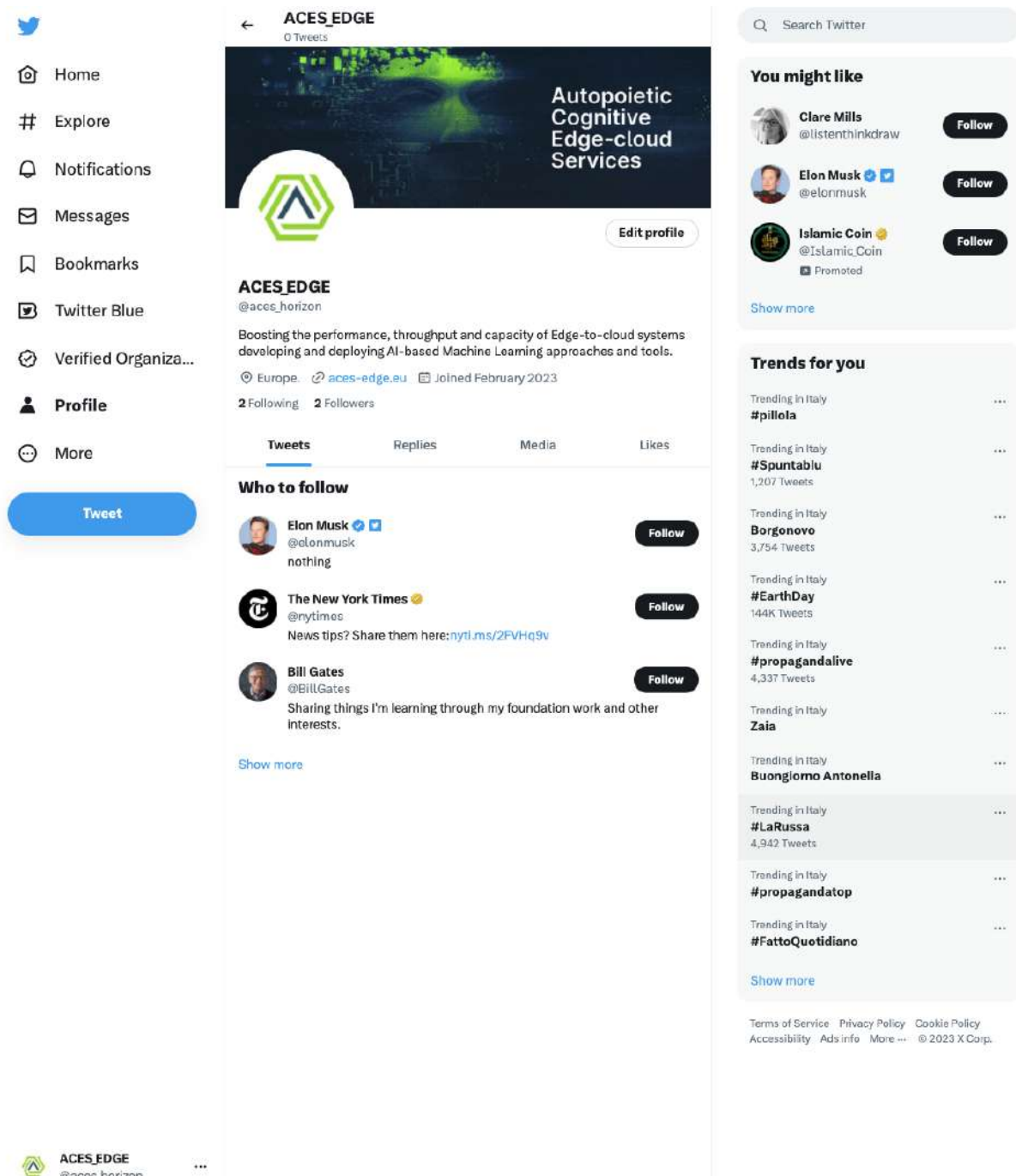


Figure 2 – Twitter page

ACES project Twitter account was implemented according to the following criteria:

- Profile image with the official icon logo and cover with image referring to the main graphic design of the project which recalls the shape of the letter A
- Brief description of the project
- Official # of the page: #aces_horizon
- Link to the official <https://www.aces-edge.eu/> website.

Here below the communication strategy applied to the Twitter social channel at a glance:

- Twitter posts require very concise textual content (280 characters). For this reason, short messages will be drawn up containing essential information: official and thematic hashtags within the text itself, @mentions and links to the project website <https://www.aces-edge.eu/>
- Each project partner follows the ACES account and vice versa. By tagging and retweeting each other, it will be possible to improve the project’s presence on Twitter and support the dissemination of contents
- Tweets will include relevant accounts and tags accordingly

YOUTUBE

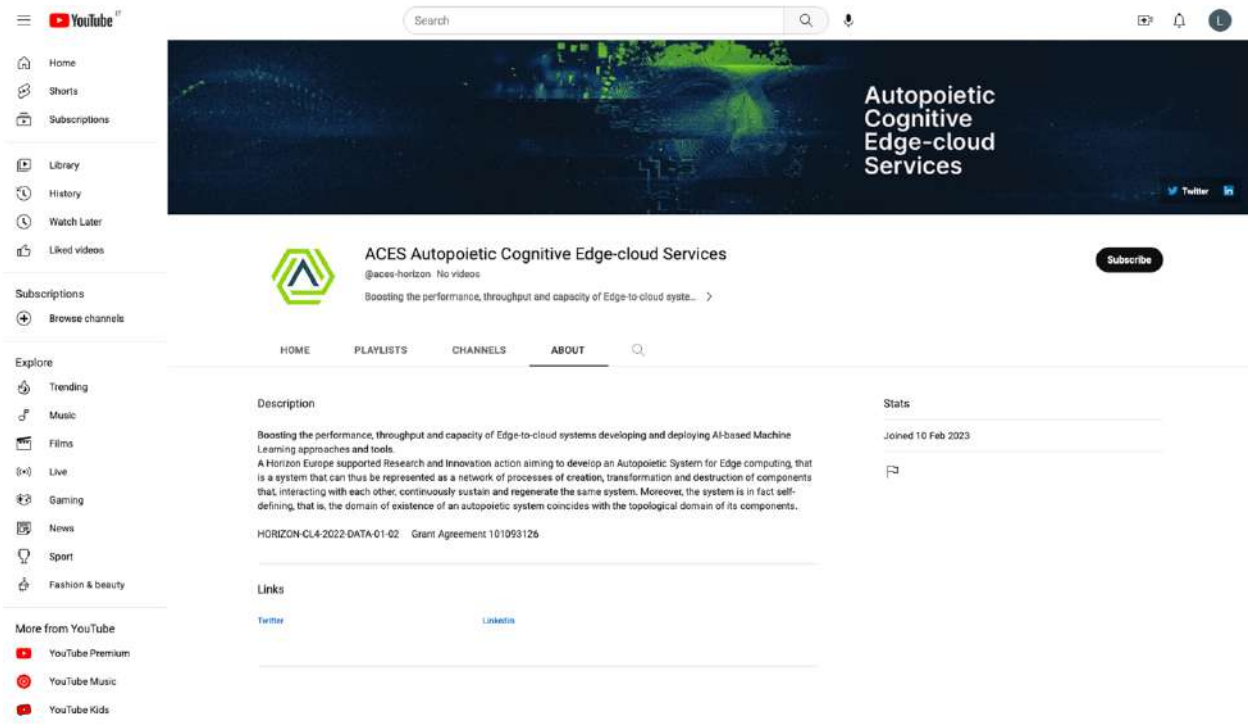


Figure 3 – Youtube page

MASTODON

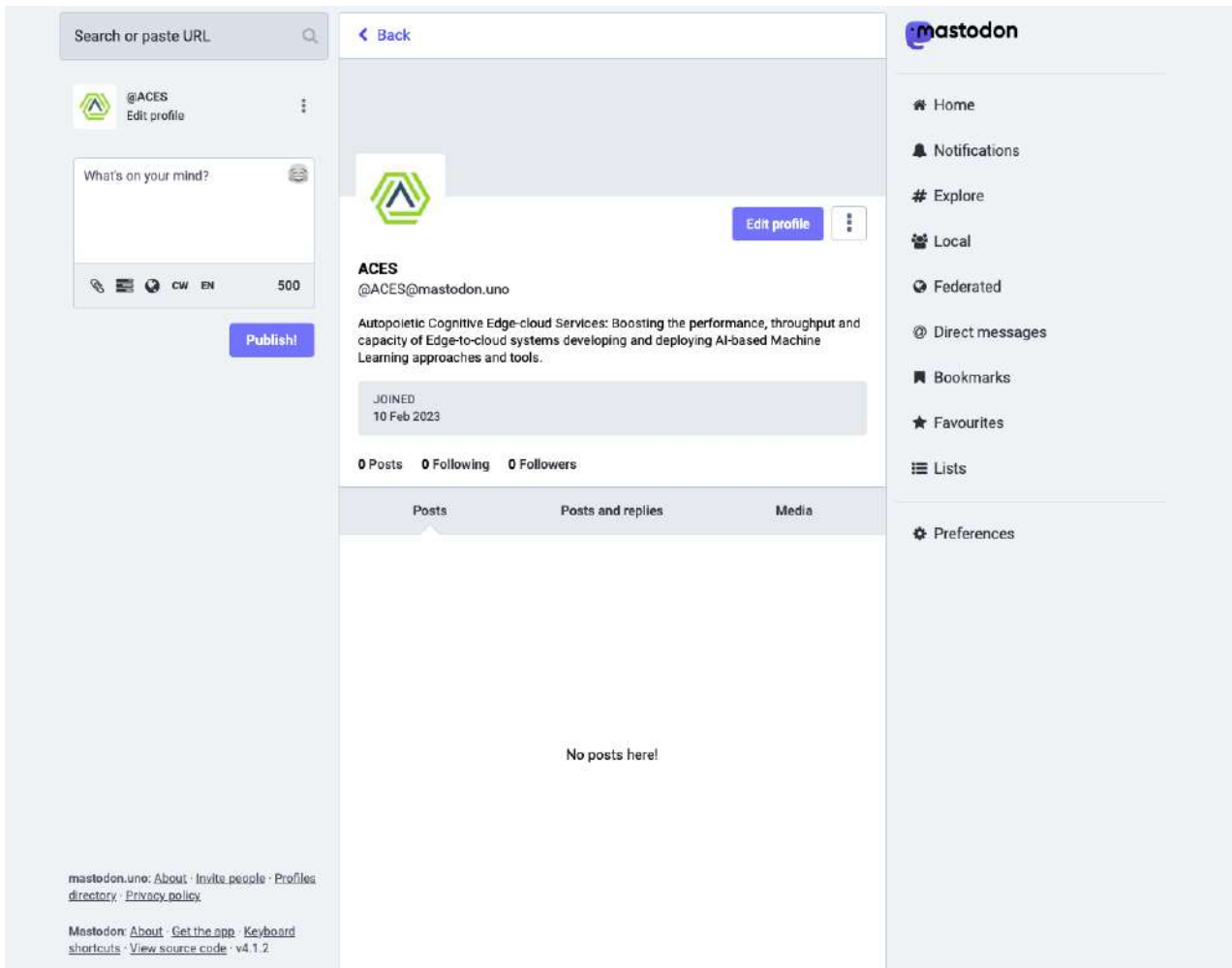
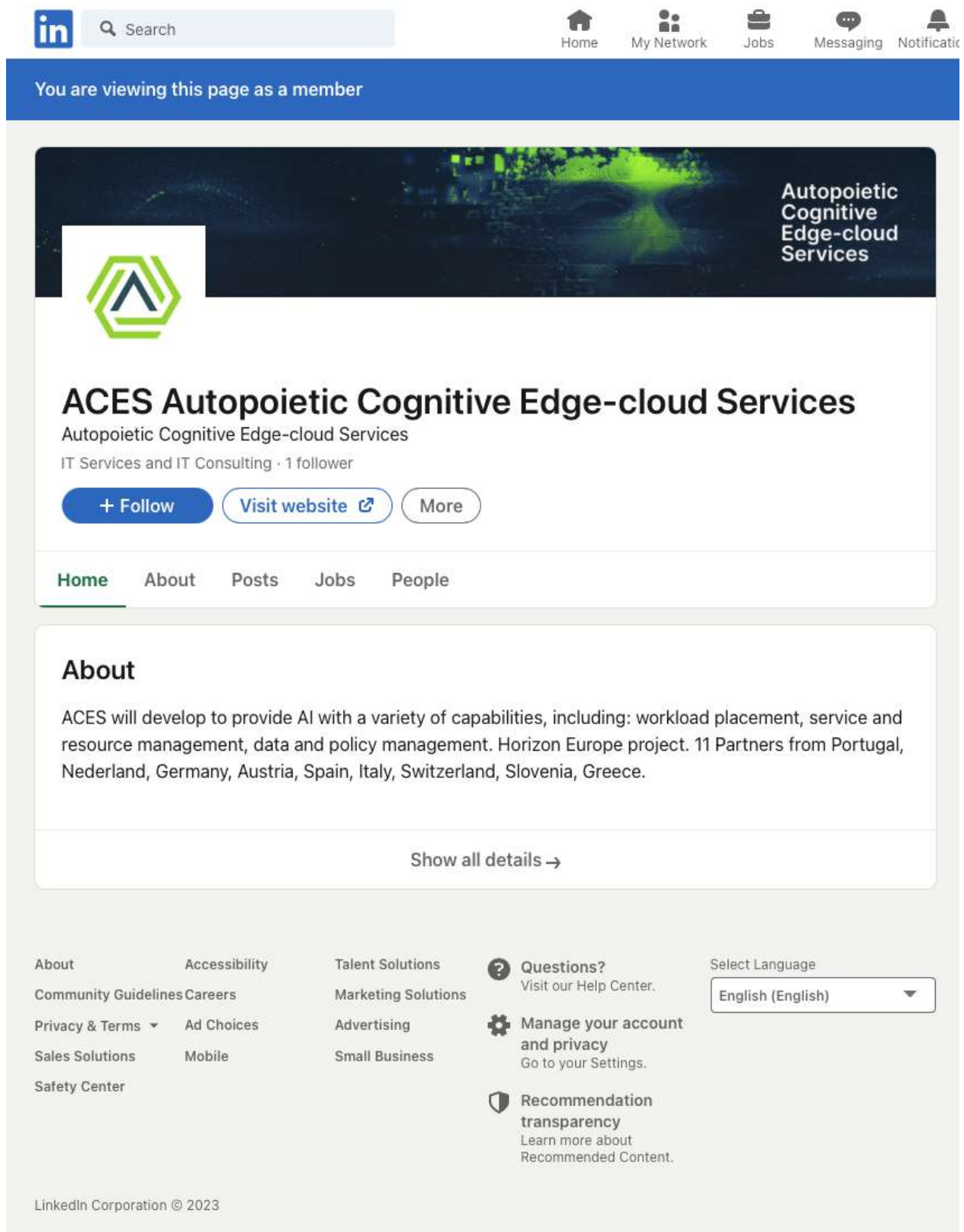


Figure 4 – Mastodon page

LINKEDIN



The screenshot displays the LinkedIn profile page for 'ACES Autopoietic Cognitive Edge-cloud Services'. At the top, there is a navigation bar with icons for Home, My Network, Jobs, Messaging, and Notifications. Below this is a blue banner stating 'You are viewing this page as a member'. The main header features the ACES logo and the text 'Autopoietic Cognitive Edge-cloud Services'. The profile name is 'ACES Autopoietic Cognitive Edge-cloud Services', with a subtitle 'Autopoietic Cognitive Edge-cloud Services' and 'IT Services and IT Consulting · 1 follower'. Action buttons include '+ Follow', 'Visit website', and 'More'. Navigation tabs for 'Home', 'About', 'Posts', 'Jobs', and 'People' are present. The 'About' section contains a paragraph: 'ACES will develop to provide AI with a variety of capabilities, including: workload placement, service and resource management, data and policy management. Horizon Europe project. 11 Partners from Portugal, Nederland, Germany, Austria, Spain, Italy, Switzerland, Slovenia, Greece.' A 'Show all details →' link is located below the 'About' text. The footer contains a grid of utility links: About, Accessibility, Talent Solutions, Questions?, and Select Language; Community Guidelines, Careers, Marketing Solutions, Manage your account and privacy; Privacy & Terms, Ad Choices, Advertising, and Recommendation transparency; Sales Solutions, Mobile, Small Business; and Safety Center. The copyright notice 'LinkedIn Corporation © 2023' is at the bottom left.

Figure 5 – LinkedIn page

A glimpse at the communication strategy that has been devised to be applied to the editorial calendar is provided below:

- Target: for each social channel, different content will be produced based on the target audience. LinkedIn is a social media based on the dissemination of highly professional content, and, for this reason, the content written will be in line with the social tone. Concise, professional and detailed style.
- Each post will include specific hashtags relating to issues such as digital public services, user-centred design, and data sovereignty in the European Union. This will allow the audience to receive targeted updates on specific areas of interest.
- Each project partner follows the ACES LinkedIn page and vice versa. These inner connections allow it to create targeted dissemination, conferring authority and recognition to the project.
- Each project partner will be able to repost the contents of the LinkedIn ACES page, mentioning the page, inserting the official hashtag #ACESproject_EU and indicating the official website <https://www.aces-edge.eu/>
- LinkedIn ACES profile will mention other institutional pages of the partners involved in the project.

5.4 GitHub and the Open-Source approach

ACES consortium aims to provide benefits to European society. To contribute to that goal, partners are encouraged to use Open-source Software (OSS) in their deliverables, and to contribute with their deliverables to the Open-source communities. The strategy adopted by the ACES consortium is further defined in the Consortium Agreement. However, relevant to this deliverable and to the dissemination of ACES's results is the fact that ACES aims to contribute to the Open-source community. For this reason, in addition to internal use of a tool for versioning control, a GitHub account is created, which will be maintained after the completion of the project to support its further developments. It is reasonable to foresee further elaborations regarding this element in future updates of the communication and dissemination strategy.

5.5 Videos to communicate certain sophisticated components of ACES

Videos are a very effective means to diffuse information and create awareness. ACES will use them to create the knowledge in the general public about the key characteristics and functionalities of Edge-Cloud. Edge-cloud based on microdata systems creates new opportunities together with the associated technological challenges.

ACES has different opportunities to use videos:

- Functional animations, demonstrating the **operation of architectures and the interactions of systems**;
- Functional animations, demonstrating **the ways different edge-cloud users can benefit from the solution**;
- Video captures to propose the **approaches of different physical actors in cloud systems**, as users and providers.

ACES develops a complex technological concept and sophisticated solutions for edge-cloud services. The formats of the videos will be decided beginning of M5.

6 ACES branding

6.1 The ACES branding

6.1.1 Colour Palette chosen.

The developed colour palette features a vibrant and bright shade of green: it communicates modernity and innovation. Because of its brightness it attracts a lot of attention and helps

communicate a strong and positive message. It is a fresh and inspiring colour that conveys a lot of energy. Green is typically associated with nature (sustainability) and money (business growth). In contrast to green, a calibrated blend of blue and gray with some infiltration of green was chosen: it is a cool shade of blue, calming to the eye, very elegant; it is a blue that conveys professionalism and reliability. To complete the palette, neutral colors: white and black.

6.1.2 Typography

The typographic font chosen is Inter. A Google font inspired by the industrial era and grotesque typefaces, geometric shapes and the absence of graces give it a very clean and modern look. It is an extremely readable and versatile typeface, well suited to convey the avant-garde concept.

6.1.3 Logo design principles

The logo was constructed following the principles of the golden section and the Fibonacci sequence. The golden ratio was exploited in the study of proportions and spaces.

The symbol designed incorporates several elements:

- the hexagon, a harmonic shape that recalls concepts of efficiency (bee cells/ net/ tech vibes) and balance
- the spiral/ cycle, a dynamic shape that conveys movement and recalls concepts of development and sustainability
- the arrow/ letter A, a reminder of the project's initial but also of the concepts of growth and innovation.

6.1.4 Graphic style

The brand style reflects the values of the project and represents the technology sector in which it operates.

The graphic style is minimalist: clean lines and essential design are used. This type of approach communicates simplicity, clarity and efficiency.

Another characteristic component is geometry: the sharp edges of geometric shapes used throughout the visuals evoke precision and order, and through their modern, abstract appearance they evoke the future and innovation.

6.1 ACES branding

The logo representing the project is the result of a collaborative decision-making process that gave the consortium partners the opportunity to shortlist some logos among several options proposed by the WP Leader (DataPower). This iteration led to the current version of the logo (Figure 5).



Figure 5 - Logo

The logo is available both in its positive and negative version, and its concept is as follows.

Logo Concept

- 

THE ARROW / LETTER A

 - Growth
 - Innovation
 - Brand Name Initial
- 

THE SPIRAL / CYCLE

 - Dynamism
 - Development
 - Sustainability
- 

THE HEXAGON

 - Efficiency
 - Balance
 - Harmony



Figure 6 – Logo concept

6.2 ACES website

This section provides an overview and screenshots from the website <https://www.aces-edge.eu>. It proposes the sitemap and the different pages. This is to be considered a living document, which will be enriched and updated during the whole course of the project.

6.2.1 Website structure

The following chart presents the overview of the ACES website, mapping the different pages and their content. The website is a dynamic object and while some of the structural elements remain stable, it will be updated dynamically as the project develops over time.

ACES Sitemap

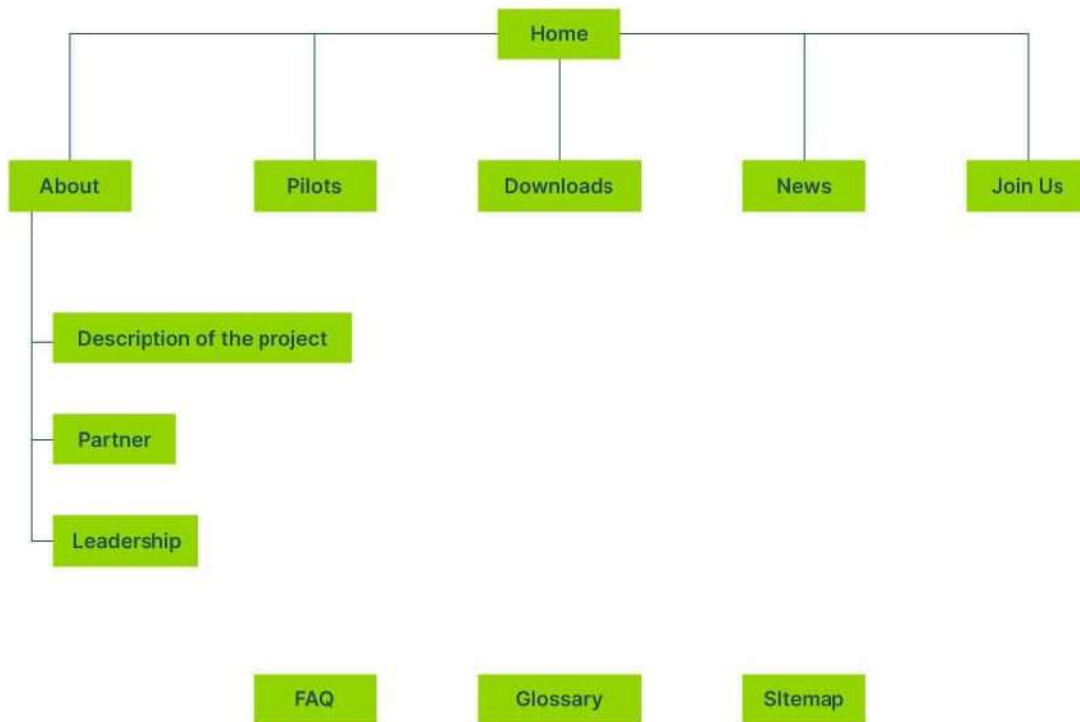


Figure 7 – ACES sitemap

6.1.2 The Webpages

In this section the screenshots of the ACES website are presented. Some pages have not been implemented yet, since the specific approach, the design and the targets have not yet been defined and depend on other work lines:

- the pilot setups;
- the events section;
- the video section.

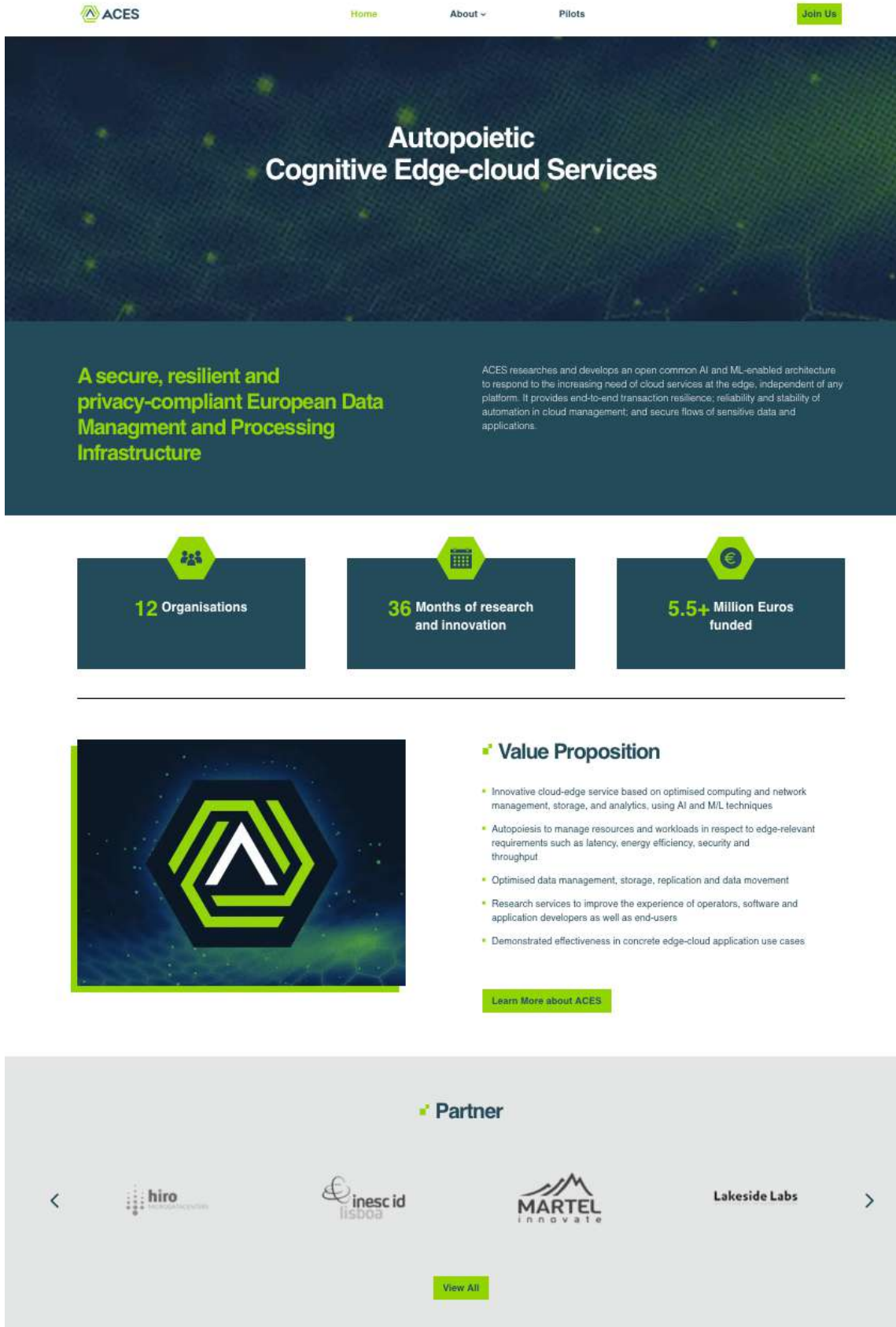


Figure 8 - ACES Website Screenshot 1

Use Cases

- 

Autopoietic edge-cloud data and application service platform
- 

Management agents and tools for awareness; AI and M-L enabled tools to handle workload, service and resource management, data and policy management, telemetry and monitoring
- 

Autopoietic agents for service and throughput stability in challenging service scenarios in terms of workload placement, service and resource management, data and policy handling

The Use Cases test and demonstrate the effectiveness and generalisability of the ACES design and technological solutions. They are based on three real-life application scenarios that take advantage of cognitive edge services with different levels of autonomy and, actionability within the services, the edge service stack and the hardware. These use case will develop dedicated and, geographically distributed edge cloud to demonstrate its effectiveness and efficiency to technologists and end-users and they will be documented appropriately to prove the transferability to other industries and sectors.

[Discover the ACES pilots](#)

Become one of ACES stakeholders

[Join Us](#)

Receive our updates

(about every two weeks)


[Privacy Policy](#)



This project has received funding from the European Union's Horizon Europe research and innovation programme under the grant agreement No. 101093126 (HORIZON-CL4-2022-DATA-01-02).



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Figure 9 - ACES Website Screenshot 2

Home
About -
Pilots
Join Us

Description of the project

Home > Description of the project

About Us

ACES is a three-year research and innovation project funded under the Horizon Europe Framework Programme, Programme HORIZON-CL4-2022-DATA-01, project ID: 101093126. It is promoted by a consortium of 12 organisations: small and medium businesses, research and technology institutions, academia and industry, who are leaders in computer engineering, smart manufacturing, public policy, technological development, innovation management, business information system, security and public administrations clusters.

Context and issues

ACES undertakes research and technological innovation to respond to the increasing need of edge-cloud computing and data management and the demand of edge services. ACES edge-cloud data and application services have the potential to enable a new infrastructure model, capable of guaranteeing end-to-end transaction resilience.

The ACES solution provides autonomy and self-regulating mechanisms that provide systems stability, locally and edge-wide. The requirements include the need for a horizontal flow of data and applications between sites as well as tackling issues of bandwidth, energy efficiency, security, and privacy.

Furthermore, the autonomous operations on the platform need to be clearly explainable to operators, application developers and end-users and low-overhead is required in terms of costs, latency, energy, labour.



The solution offered by ACES

ACES will provide an edge-services cloud with hierarchical intelligence, specifically autopoiesis and cognitive behaviours to manage and automate the platform.

These solutions include: Autopoiesis-based edge-services cloud; awareness tools, AI/ML agents for workload placement, service and resource management, data and policy management, telemetry and monitoring; Autopoiesis agents to safeguard stability in situations of extreme load and complexity; Swarm technology-based methodology and implementation for orchestration of resources; Edge-wide workload placement and optimization; App store for classification, storage, sharing and rating of AI models used in ACES.

Key Outcomes



Figure 10 - ACES Website Screenshot 3

Impact

The aim of ACES is to develop a distributed, opportunistic, collaborative, heterogeneous, self-managed, self-organizing edge services environment, primarily edge-to-edge and secondly on the edge-to-cloud continuum.

The expected impacts of this implementation are:

- Improved placement of Europe in the delivery of secured edge-cloud service platforms in the global scenario.
- A reinforced capability of Europe to have available technical, computational and data transmission means to manage urgent societal challenges.
- Availability of more effective technologies and tools to manage distributed cloud systems at the edge.

More specific impacts of ACES concern:

- the energy sector, facilitating the transition towards a system capable of optimising the relationship between supply and demand and the integration of sustainable energy sources.
- the more general impact on the European Green Deal, driving the concept of smart infrastructure and decentralised energy production.
- Impact on sustainable development goals.

Become one of ACES stakeholders



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(about every two weeks)


[Privacy Policy](#)



This project has received funding from the European Union's Horizon Europe research and innovation programme under the grant agreement No. 101093126 (HORIZON-CL4-2022-DATA-01-02).



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Figure 11 - ACES Website Screenshot 4


Home
About
Pilots
Join Us

The pillars

Home > The pillars

The pillars of ACES



Develop a new modular edge services platform

ACES develops a modular edge-services cloud which will support multiple architectural patterns for creating ad-hoc edge clouds in one site, and across multiple sites. The autopoiesis enables an autonomous configuration, orchestration and management collecting metrics and generating knowledge that intelligent agents use to execute edge-services and cloud requirements such as energy efficiency, availability, scalability, latency, data centrality, security and data protection. The event-driven data-centric architecture will be designed to have high levels of automation and autonomy and supports human operator control

Creating specific workload management modules

The ACES solution builds on six modules: edge resource collaboration, service deployment, resource clustering at scale, workload placement, network control, workload optimization, in the view to optimize the data management, data storage, data replication

Optimize the data management, data storage, data replication

The ACES project will provide a distributed storage framework that has "knowledge" of the location of data in several ways: physical location of the data within the edge and across the different edge locations. Personal data will be linked to the current location the user is accessing ACES services from. ACES will develop and deploy data migration and replication solutions to enhance the reliability from some of the ad-hoc resources employed at the edge. Metadata about the data access requests will be logged into a distributed ledger (blockchain). Various access authorizations will grant different control over access to data and data placement on edge systems to ensure privacy. Range of services to be produced: Distributed storage and data movement; Data life cycle management for the edge; Data slicing and management at scale; Telemetry; Edge acceleration; AI security.

ACES improves the experience of operators, end-users and developers by providing specific research services

ACES aims to develop a set of tools for ACES platform operators to check ai/ml models against existing ones. Such set of tools for software developers address two areas: networking and observability, and offer distributed transaction monitoring, performance and latency optimization, root cause analysis, service dependency analysis, distributed context propagation. The following service will be developed in aces: application store; application monitoring; network function synthesis; visualisation of workload placement and orchestration.

Test and demonstrate the effectiveness and generality of ACES by evaluating three real-life use cases of cognitive edge-services

Three different use-cases that are generic enough to be found in and representative for similar use-cases in other industry sectors. Use case 1: Market place & distribution dedicated to the energy grid, Use case 2: Distributed Process Management of the electric market management. Use-case 3: An IoT based Asset Monitoring and Management the introduction of Advanced Metering Infrastructure data along with data from grid-edge sensors and GIS systems has allowed for faster outage detection, accurate outage prediction and more reliable investment planning.

Figure 12 - ACES Website Screenshot 5

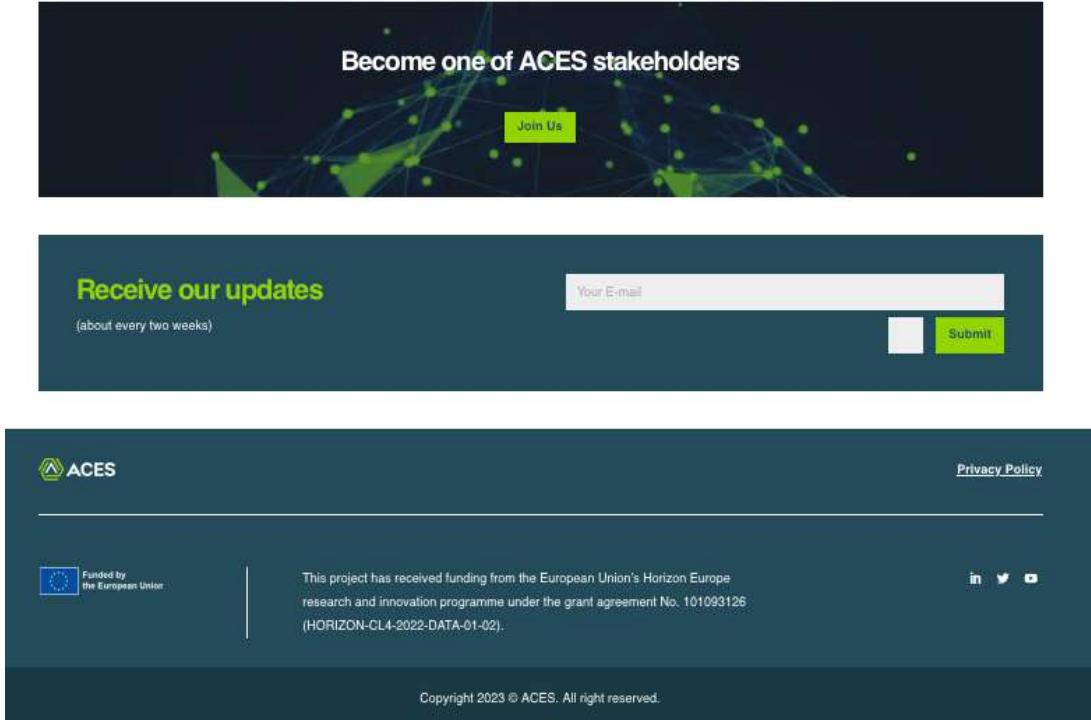


Figure 13 - ACES Website Screenshot 6

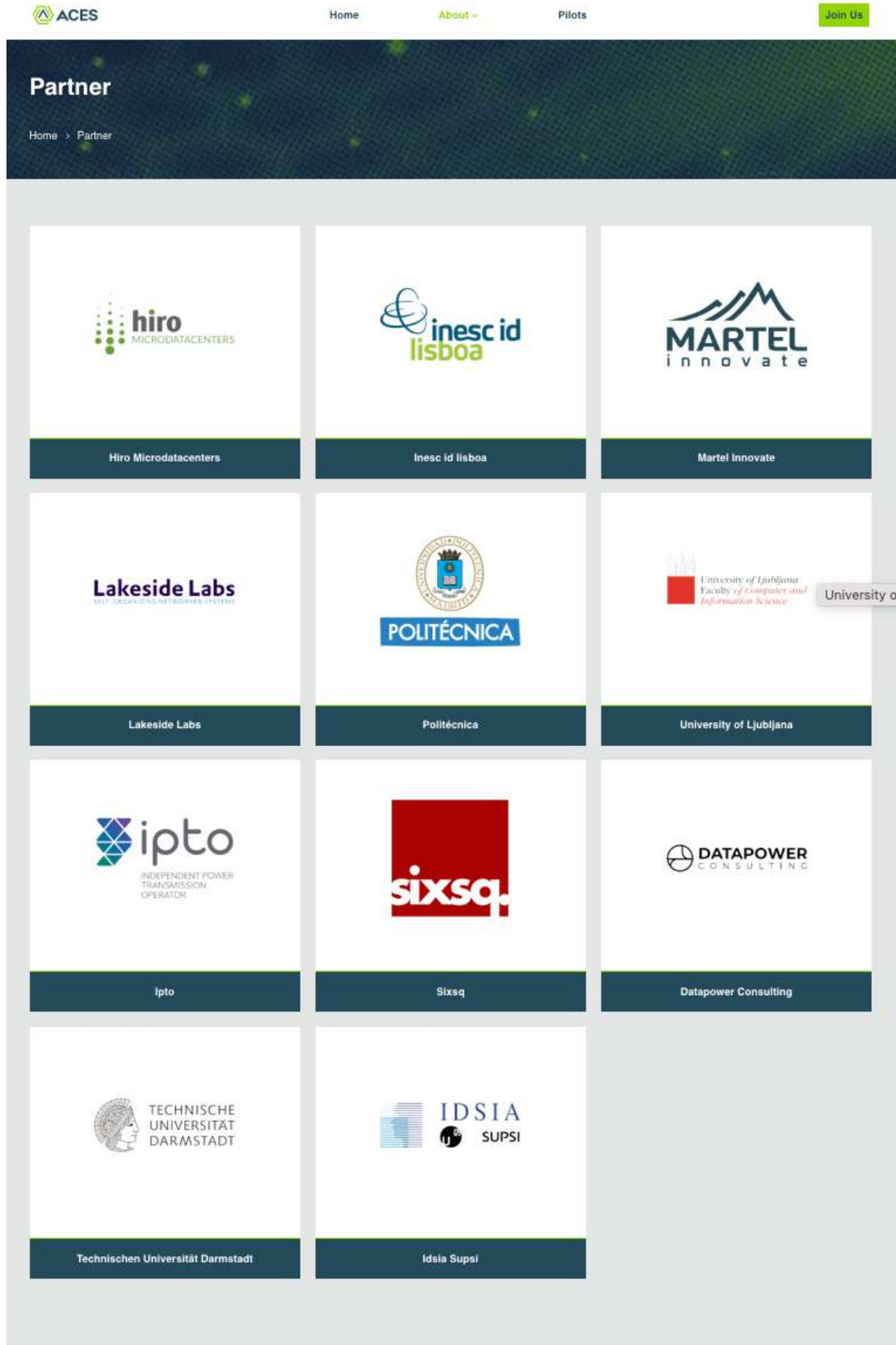


Figure 14 - ACES Website Screenshot 7

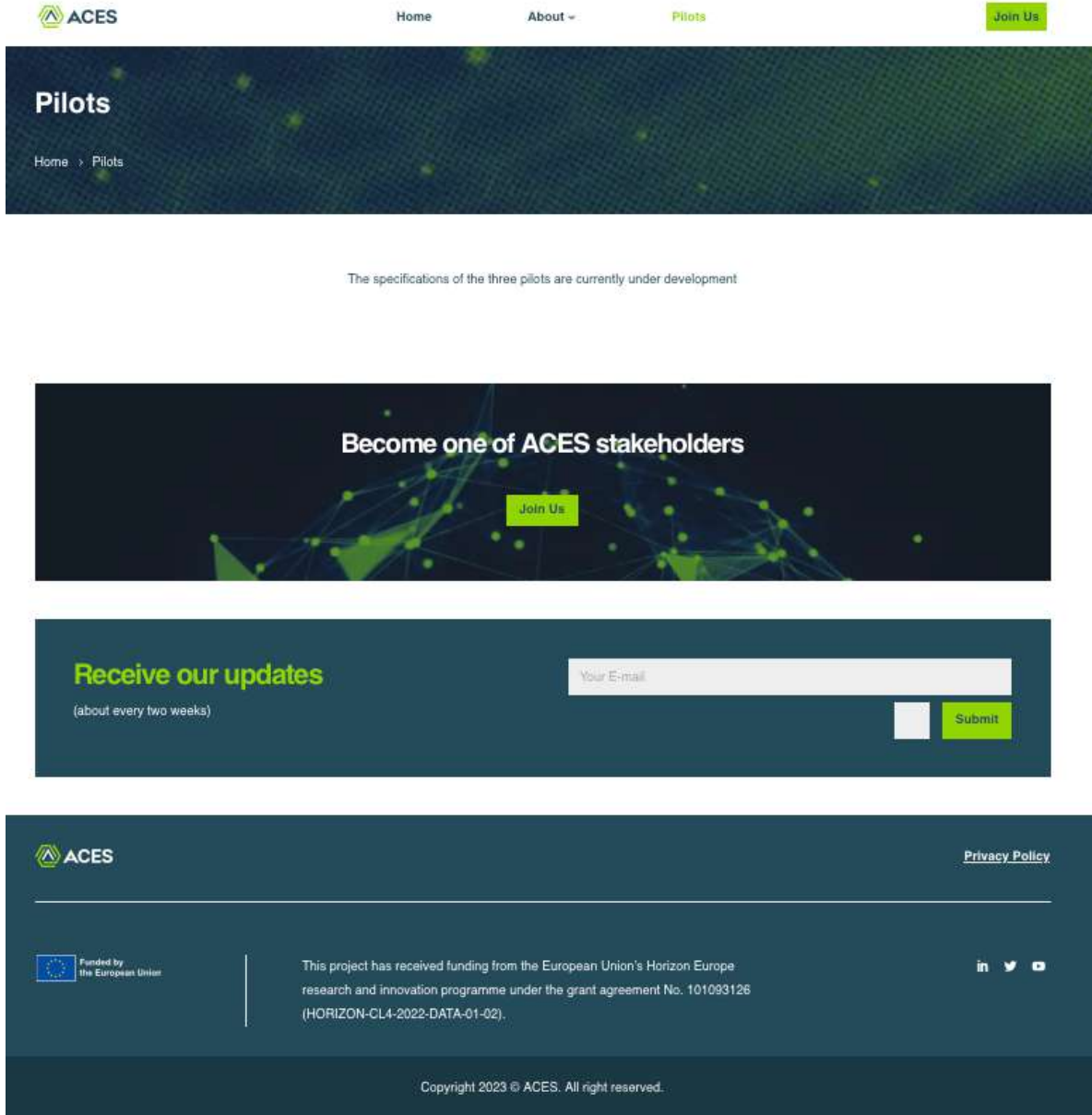


Figure 15 - - ACES Website Screenshot 8

7 Communication and dissemination channels

This chapter provides an **overview of the communication tools and channels selected for ACES**. Overall tools and channels encompass both traditional and newer forms of communication. These are chosen to cover the objectives identified in the Grant Agreement first and then for the communication and dissemination of the project.

7.1 Templates

The use of templates is necessary **to standardise certain communication material so as to ensure a consistent outlook and, ultimately, the visual identity of the project**. Due to this reason, both physical and digital documents' templates are made available to the ACES consortium. The physical template is available, but all the consortium is strongly encouraged not to print letters but rather use digital forms of communication.

7.1.1 ACES physical and digital documents templates

The first slide of the PowerPoint presentation template is in Figure 8.



Figure 16 - PowerPoint presentation template (first slide)

The word document template for deliverables is in Figure 16



Deliverable xy

Deliverable Name

Grant Agreement Number: 101093126



Figure 17 - Textual document template 1



ACES Autopoietic Cognitive Edge-cloud Services

| |
|--|
| Project acronym ACES |
| Project full title Lorem Ipsum is simply dummy text of the printing and |
| Call identifier HORIZON-CL4-2022-DATA-01 |
| Type of action RIA |
| Start date 01/01/2023 |
| End date 31/12/2025 |
| Grant agreement no 101093126 |

DX.Y – Title of the deliverable

| | |
|--|--|
| Deliverable Date simply dummy text of the | |
| Author(s) Lorem Ipsum is simply dummy text of the printing and | |
| Editor Lorem Ipsum is simply dummy text of the printing and | |
| Leading Partner Lorem Ipsum is simply dummy text of the printing and | |
| Participating Partners Lorem Ipsum is simply dummy text of the printing and | |
| Version simply dummy text of the printing and | Status simply dummy text of the printing and |
| Deliverable Date simply dummy text of the | Dissemination Lv simply dummy text of the |
| Official Date simply dummy text of the | Actual Date simply dummy text of the printing |

Figure 18 - Textual document template 2

Disclaimer

Lorem Ipsum is simply dummy text of the printing and typesetting industry. Lorem Ipsum has been the industry's standard dummy text ever since the 1500s, when an unknown printer took a galley of type and scrambled it to make a type specimen book. It has survived not only five centuries, but also the leap into electronic typesetting, remaining essentially unchanged. It was popularised in the 1960s with the release of Letraset sheets containing.

Lorem Ipsum passages, and more recently with desktop publishing software like Aldus PageMaker including versions of Lorem Ipsum

| No | Partner Organisation Name | Abbreviation | Country |
|----|--|--------------|---------|
| 1 | INSTITUTO DE ENGENHARIA DE SISTEMAS E COMPUTADORES, INVESTIGACAO E DESENVOLVIMENTO EM LISBOA | INESC ID | PT |
| 2 | HIRO MICRODATACENTERS B.V | HIRO | NL |
| 3 | TECHNISCHE UNIVERSITAT DARMSTADT | TUD | DE |
| 4 | LAKESIDE LABS GMBH | LAKE | AT |
| 5 | UNIVERZA V LJUBLJANI | UL | SI |
| 6 | UNIVERSIDAD POLITECNICA DE MADRID | UPM | ES |
| 7 | MARTEL GMBH | MAR | CH |
| 8 | SCUOLA UNIVERSITARIA PROFESSIONALE DELLA SVIZZERA ITALIANA | IDSIA | CH |
| 9 | INDEPENDENT POWER TRANSMISSION OPERATOR SA | IPTO | EL |
| 10 | DATAPOWER SRL | DP | IT |
| 11 | SIXSQ SA | SIXSQ | CH |

Figure 19 - Textual document template 3

Document Revision History

| Date | Version | Description | Contributions |
|------|---------|----------------------------|----------------------------|
| | 2.0 | Lorem ipsum dolor sit amet | Lorem ipsum dolor sit amet |
| | | | |
| | | | |

Authors

| Author | Partner |
|----------------------------|----------------------------|
| Lorem ipsum dolor sit amet | Lorem ipsum dolor sit amet |
| | |
| | |
| | |

Reviewers

| Name | Organization |
|----------------------------|----------------------------|
| Lorem ipsum dolor sit amet | Lorem ipsum dolor sit amet |
| | |
| | |
| | |

Figure 20 - Textual document template 4

7.1.2 Newsletters

The newsletter is a central tool in the communication with external stakeholders. It provides timely updates on the progress of the project. Additionally, it is used to communicate successes or challenges encountered during the project lifetime, as well as to showcase key milestones that have been achieved. With this regard, the newsletter is used to promote upcoming events related to the project or share success stories. This will help build an ACES community and strengthen its relationships afterwards. The content is tailored to each stakeholder persona so that they receive relevant information in an easily digestible format. Its structure should be clear and concise so that readers can quickly understand what is being communicated. When a stakeholder is tagged into a certain stakeholder persona, they will receive a newsletter tailored to that group. This process begins with the project team creating the newsletter content according to the interests and needs of the different personas. The stakeholders themselves can specifically opt to receive a certain type of content when registering. The content is divided as follows: publication and articles, summits and

events, materials and videos, or no preferences. The content is adapted to each persona so that they receive information that resonates with their experience and field of interest, and in an easily digestible language and format. As targeted, over the duration of the project there will be nine newsletters starting in M6.

7.1.3 ACES blog in the project's website

ACES makes use of online blog posts to provide valuable content to the public and increase the visibility of the project. The blog is an important way to increase the online visibility of ACES. More specifically the blog is used to share information such as relevant happenings and successes. It is also used to engage with potential customers and partners by providing them with valuable content related to the project deliverables and milestones. Additionally, it helps build credibility for ACES by showcasing its accomplishments and highlighting its strengths. Finally, it helps attract new visitors and followers who may be interested in learning more about the project or getting involved in some way. The targets for the blogposts is 50, starting in M5.

7.1.4 Articles, scientific publications and policy briefs

In ACES, results are disseminated through scientific publications in peer-reviewed journals and conference proceedings. This will ensure that the findings are presented in a rigorous and reliable manner, allowing for further scrutiny by experts in the field. This appears to be necessary given the strong orientation of ACES towards innovation in critical infrastructures. In addition to scientific publications, lessons learned from this project will be shared with policymakers through policy briefs. These documents provide concise summaries of key findings which can then be used to inform decision making at all levels of government. Policy briefs also provide an opportunity to discuss potential implications for public policy and suggest areas for further research or action. Whereas ACES innovation objectives lean more towards functionalities and operations within critical infrastructures, the implications for digital policy in Europe ought to be acknowledged and valued. In particular the challenges regarding data sovereignty certainly constitute an important aspect of the project. By disseminating results through both scientific publications and policy briefs, this project will ensure that its findings reach a wide range of audiences who can use them to inform their work in different ways. **A list of suitable avenues for the publication of (scientific) articles was compiled with the contribution of the ACES consortium and it is made available in the Annexes.** The target is 18 publications, most likely starting with M8.

The policy briefs will be defined and facilitated by the WP6 leader, who will draft them with the support of the consortium members and use them for communication in the EX mechanisms and in other fora where the policy stakeholders at EU, Member State, local and operational level are active.

7.2 Press releases

Press releases are useful to share milestones or other important developments in the project that can be viewed as checkpoints in the path to success. Additionally, they are essential when there is an happening that has direct public relevance.

The social media channels of the ACES project will not share this type of content to avoid auto referencing. However, the ACES social media channels will share press releases published by media outlets or ACES consortium partners. The target is three press releases, starting with M10.

7.2.1 Third-party events

ACES consortium members have extensive knowledge of scientific, industry and policy events at European and national levels covering topics such as digital policy, computer science, architecture engineering, interoperability, technology law, industry 4.0. The consortium will participate in these external events, including conferences, digital exhibitions, trade fairs, international forums, and meetups, to showcase the project results and distribute dissemination material. Association with linked projects and lever on the partners' existing networks will be foreseen to identify and reach these events. All partners are encouraged to share with the WP6 Leader any interesting events at national and European level, to attend for communication/dissemination purposes. **A list of targeted**

events is presented in the Annexes. The targets are 20 events attended, 10 presentations at events and two project demo booths.

7.2.2 Project slide deck

The communication and dissemination plan presented in chapter 2 outlines the main rationale of first phase as to raise awareness on ACES to spark interest and elicit interactions with the target audiences. Raising awareness on the project by developing a comprehensive and generic overview is the logic underlying the introductory presentation of ACES.



Introductory Project Presentation

Speaker Name



Figure 21 - Slide Deck 1

ACES
at a glance.

Project title Autopoietic Cognitive Edge-cloud Service
Call and topics HORIZON-CL4-2022-DATA-01
Grant Agreement Number: 101093126

Members
8 beneficiaries
3 associated partner

Funds
€ 5 543 925.00

Duration
36 months
Start Date: 01/ 01 /2023



Figure 22 - Slide Deck 2

ACES Vision.



ACES vision is to research an evolution of cloud computing, an edgervices cloud with hierarchical intelligence, specifically Autopoesis and cognitive behaviours, to manage and automate a compute platform, network fabric, storage resources, virtualization, and analytics to increase resilience while managing simultaneous service constraints.

Cognition Cognition is defined as the ability to acquire and process information, apply knowledge, and autonomously change the inner circumstances to provide better services in response to the fluctuations in the environment. Because cognition by definition creates intelligent self-adaptation up to the same level of complexity as its analysed environment, ACES needs an additional control approach to protect the system from damage or destruction in situations where its cognitive complexity handling capabilities are exceeded.

Autopoesis Autopoesis means self-producing and maintaining itself, and is defined as the ability to produce more of their own organization principles than the ones produced by analysing the environment (cognition). This type of self-adaptive systems is a field of investigation, autonomic computing, that studies how systems can achieve desirable behaviours on their own, for example, through the use of AI.



Figure 23 - Slide Deck 3

ACES Motivation.

Edge infrastructures (FOG, MEC EdgeMicroDataCenters) are more challenged in their stability and performance because of more stringent latency and autonomy requirements, distribution across multiple sites, their local limited size, multi-tenancy and multioperators, local management, with components being concurrent and asynchronous.

This challenge is boosted by an increase in the amount of connected devices and their data-producing and data-consuming capabilities, in the intelligence embedded in edge devices, in the atomization of monolithic applications, and in the scale, speed and complexity of edge device interactivity in a zero-trust environment.

This is addressed by:

- End-to-end transaction resiliency to fulfill the varying end-user requirements, such as stipulated by Quality of Service (QoS), Service Level Objectives (SLO) and Service Level Agreement (SLA)
- Autonomy and self-regulating mechanisms that go beyond recursive self-reference and provide systems stability, locality and edge-wide
- Horizontal' (east-west) flow of data and applications between sites, and the interactions between data producers and data consumers, in terms of bandwidth, energy efficiency, security, privacy, etc.
- Explainability of the autonomous operations on the platform to the different stakeholders i.e. operators, application developers and end-users
- Deliver low-overhead (costs, latency, energy, labour) security in stream and in real time in a zero-trust environment

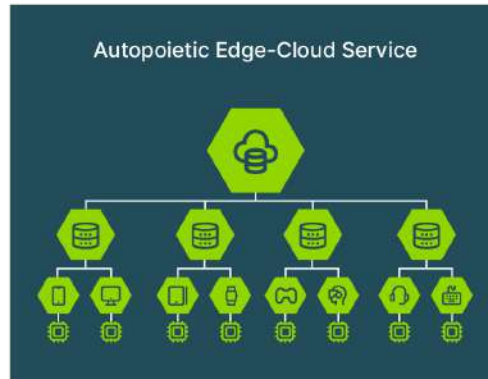


Figure 24 - Slide Deck 4

8 Operations

8.1 Dissemination and communication monitoring

This chapter deals with activities timing, management, and monitoring. More specifically, activities timing is planned by displaying a dissemination and communication timeline referring to each year of the project. Since the update of the Plan is scheduled for every 12 months, the timeline reported in the next section refers to the first year of the project. As far as the monitoring of dissemination and communication activities is concerned, this chapter deepens monitoring procedures and points

out related KPIs of this communication strategy. A closely related activity to monitoring, covered by this chapter, is the identification of risks and the foresight of related mitigation actions, which is provided for in section 8.3.

8.2 Dissemination and communication timeline for the first year

The purpose of creating the timeline of activities as outlined in the table below (M1-M12) is to map the results and match the outreach activities as indicated within the timeline itself. The timeline will be added on the project repository so everyone inside the consortium is updated regularly about deadlines and deliverables that are necessary for this DCP.

Table 8 - Timeline for the first year

| Main activities | Sub-activities | M 1 | M 2 | M 3 | M 4 | M 5 | M 6 | M 7 | M 8 | M 9 | M 10 | M 11 | M 12 |
|-------------------------------|--|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|------|------|
| ACES KoM | Publication of first press release | | █ | | | | | | | | | | |
| | Publication through partner's channels | | █ | | | | | | | | | | |
| WP6 KoM | Organisation | | | █ | | | | | | | | | |
| | Follow up | | | █ | | | | | | | | | |
| DPC plan drafting | Partners' input | | | | █ | | | | | | | | |
| | Drafting | | | | █ | | | | | | | | |
| | Feedback collection and finalisation | | | | █ | | | | | | | | |
| Definition of visual identity | First elaboration | | | █ | | | | | | | | | |
| | Finalization | | | | █ | | | | | | | | |
| Website set-up | Mock-up definition | | | █ | | | | | | | | | |
| | Finalization | | | | █ | | | | | | | | |
| Social media account set up | | | | | █ | | | | | | | | |
| Shared dissemination log | | | | | █ | | | | | | | | |
| Mapping of stakeholders | Partners' input | | | | | █ | █ | █ | █ | █ | █ | █ | █ |
| | Mapping and engaging | | | | | █ | █ | █ | █ | █ | █ | █ | █ |
| Mapping of events | Partners' input | | | █ | | | | | | | | | |

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|-------------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| | Mapping | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mapping of publication outlets | Partners' input | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Mapping | | | | | | | | | | | | | | | | | | | | | | | | | |
| Drafting and submission of scientific articles | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Launch of website | Launch | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Content update | | | | | | | | | | | | | | | | | | | | | | | | | |
| Publication through social media | | | | | | | | | | | | | | | | | | | | | | | | | | |
| YouTube video | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ACES overall project presentation | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Newsletter | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Workshops, webinars | Design and organisation | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Announcement | | | | | | | | | | | | | | | | | | | | | | | | | |
| Publication of the first scientific article | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Publication of a scientific poster | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Participation in EU and national events | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Press release | | | | | | | | | | | | | | | | | | | | | | | | | | |

8.3 Risks and mitigating actions

An updated (with respect to the Grant Agreement) list of risks and mitigation actions is provided in the table below.

Table 9 - Risks and mitigating actions

| Risk | Rating | Mitigation |
|---|--------|--|
| Partners do not agree with the licensing model for the final results of ACES. The project will not achieve the planned impact and subsequent exploitation | Medium | Detailed licensing indications has been included in the Consortium Agreement before the beginning of the project. Initial version of the |

| | | |
|--|------|--|
| | | licensing model has already been addressed in Section 2 of the GA ¹ , where freemium licensing schema for ACES results is presented. |
| The project results do not achieve sufficient relevance in the software, cloud and IT sector in general. The project will not achieve the planned impact and subsequent exploitation | High | All partners are interested in gaining new business based on the results and thus direct the project to impact creation. To achieve that, several actions are planned, which range from scientific dissemination to more industrial, more driven one, organization of workshops and training sessions with the industry, as well as setting up informal focus groups for discussion and to gather feedback on ACES's measurable outputs. |
| The dissemination of the project results is not sufficient to create an impact. The project will not achieve the planned impact and subsequent exploitation | Low | The dissemination plan will catch users as project sentinels in order to contribute to the dissemination of the results, emphasising the planned impact. |

¹ Grant Agreement Part B

| | | |
|---|---------------|---|
| <p>Community not interested in being engaged in the community of practice</p> | <p>Medium</p> | <p>The technological solution developed by ACES bares potential to bring great benefits for managing data operations. It is care of the project's consortium to cooperate and develop compelling and up-to-date content for communication and dissemination material and events and adopt a strategic approach as to the outreach opportunities to engage with to spark interest.</p> |
| <p>Communication mix not able to reach the intended audience</p> | <p>Medium</p> | <p>For this risk target audiences' description have been compiled with potential interests in the project and personas have been adopted to further describe these profiles. This will be the bases for tailored messages.</p> |
| <p>KPIs not reached</p> | <p>Medium</p> | <p>The DCP is used to set out a strategy for dissemination and communication, and more detailed plans for the execution of, e.g., social media communication support the</p> |

| | | |
|--|--|---|
| | | execution on an operational level. |
|--|--|---|

8.4 Immediate next steps

A list of immediate next steps for the communication and dissemination of ACES is provided in the table here below (Table 10).

Table 10 - Immediate next steps

| What | Responsible Partner | Planning |
|---|---------------------|----------|
| Construction of the website | DataPower | M4 |
| Application to the first conference (probably Egov-CEDEM-ePart) | DataPower | M5 |
| Planning, draft and publication of the first scientific paper | All partners | M12 |
| Banner exposition at EGI conference | DataPower | M6 |

9 Conclusion

This document constitutes the Communication, Networking and Dissemination Plan and Activities and outlines the objectives, activities, and resources needed to ensure that the project's development and results are effectively communicated to all relevant stakeholders. The Plan is developed in alignment with the overall objectives of ACES, specifically drawing its objectives from the project and translate them into concrete activities. Additionally, the Plan is designed to ensure that the project's results are disseminated in a timely manner, in suitable forms and in the most adequate networks, in order to maximise their impact and benefit for society. To this regard, all consortium partners are and will be equipped to promote the project across their communication channels, and mainly through their website and social media account, as well as through the participation of events already in their agenda. The role of the Consortium will be also significant to get the most from their established networks in the fields of interest of the ACES project. Special emphasis is given to the identification of target groups, as a key steps to identify the appropriate tools and channels to reach them. The success of communication and dissemination activities will be duly monitored throughout the project, in a view to assess the level of penetration of the audience and the overall efficiency of the actions carried out. The monitoring system will also allow to identify lessons learnt and put in place corrective actions. As for what concerns the activities already in course of action and that also constitute the next steps, wide communication across social networks is the preponderant activity in this phase of the project. Additional steps are being taken to secure ACES's outreach to scientific audiences. Furthermore, this effort is extended to better define and concretise other opportunities for communication and dissemination. Finally, the consortium will begin exploratory activities as for synergies with relevant projects.

Annex A - Stakeholders

This Annex is a stakeholders list. It includes the name of the stakeholders (first column) and the type, according to the target groups (second column).

Table 11 - Stakeholder list

| Stakeholder | Type |
|-----------------------------------|-----------------|
| CLEVER | E - Initiatives |
| MobiSpaces | A - Industry |
| Smart Manufacturing Industry | A - Industry |
| Smart Governance and Smart Cities | A - Industry |
| Gaia-X | E - Initiatives |
| Digital Europe | A - Industry |
| EGI | C - Industry |
| NTT Data | C - Industry |
| Ericsson | C - Industry |
| Epsilon Italia | C - Industry |
| APCO Worldwide | C - Industry |
| Open Geospatial Consortium | C - Industry |
| GLACIATION | E - Initiatives |
| OpenContinuum | E - Initiatives |
| UNLOCK-CEI | E - Initiatives |
| INCODE | E-Initiatives |
| TARDIS | E-Initiatives |
| FLUIDOS | E-Initiatives |
| BRAINE | E - Initiatives |

| | |
|----------------------------------|------------------------|
| KEA Kinetic Edge Alliance | E - Initiatives |
| OGA Open Grid Alliance | E - Initiatives |
| GAIA-X | E - Initiatives |
| DESIGNSCAPES | E - Initiatives |
| DECIDO | E - Initiatives |
| ETAPAS | E - Initiatives |
| ACROSS | E - Initiatives |
| CPSWARM | E - Initiatives |
| BugWright2 | E - Initiatives |
| SWILT | E - Initiatives |
| MESON | E - Initiatives |
| DAIRO | E - Initiatives |
| FIWARE | E - Initiatives |
| ELASTIC | E - Initiatives |
| 5GEMERGE | E - Initiatives |
| 1- SWARM | E - Initiatives |
| AlgoRNN | E - Initiatives |
| ASSURED | E - Initiatives |
| SUPERCLOUD | E - Initiatives |
| SyNAPSE | E - Initiatives |
| UPVN | E - Initiatives |
| NG-STORAGE | E - Initiatives |

Annex B - Avenues for publication

Table 12 - Avenues for publication

| Name | Type | Audience |
|--|-----------------------------|----------------------|
| IEEE Access | Academic Journal | Scientific community |
| IEEE Explore | Academic Journal | Scientific community |
| Swarm Intelligence | Academic Journal | Scientific community |
| IEEE International Conference on Autonomic Computing and Self-Organizing Systems ACSOS | Conference Proceedings | Scientific community |
| International Conference on Swarm Intelligence ANTS | Conference Proceedings | Scientific community |
| BDVA | Industry publication | Industry |
| ERCIM | Online and offline magazine | Industry |
| EGOV-CeDEM-ePart | Conference Proceedings | Scientific community |
| IEEE Euro S&P | Conference Proceedings | Scientific community |
| ESORCIS | Conference Proceedings | Scientific community |
| ICIS | Conference Proceedings | Scientific community |
| ACM SIGCOMM | Conference Proceedings | Scientific community |
| Usenix NSDI | Conference Proceedings | Scientific community |
| ACM SOSR | Conference Proceedings | Scientific community |
| ACM CoNEXT | Conference Proceedings | Scientific community |
| NATURE | Academic Journal | Scientific community |
| IEEE Transactions on Cloud and Computing | Academic Journal | Scientific community |

| | | |
|---------------|------------------|----------------------|
| ACM | Academic Journal | Scientific community |
| Springer | Academic Journal | Scientific community |
| Elsevier | Academic Journal | Scientific community |
| arXiv | Academic Journal | Scientific community |
| MIS Quarterly | Academic Journal | Scientific community |

Annex C - Events

Table 13 - Events

| Event name | Event type | Dates |
|--|---|----------------|
| Concertation and Consultation on Computing Continuum: From Cloud to Edge to IoT | EC Concertation and Consultation Conference | 10-11 May 2023 |
| IEEE International Conference on Autonomic Computing and Self-Organizing Systems ACSOS | Scientific Conference | 2023 |
| International Conference on Swarm Intelligence ANTS | Scientific Conference | 2023 |
| Data 4 Policy | Summit | 2023 |
| Cloud computing and Digital Single Market Roundtable | Roundtable | 2023 |
| Forum PA | Conference | 2023 |
| Data Week 2023 | Workshop | 2023 |
| European Big Data Value Forum | Conference | 2023 |
| AIWEEK | Conference | 2023 |
| DTX | Conference | 2023 |
| PoliMi Annual Digital Innovation Report | Conference | 2023 |

| | | |
|------------------------------|-----------------------|------|
| Long Night of Research (AUT) | Public event | 2024 |
| Research Days (AUT) | Workshop | 2024 |
| EGOV-CeDEM-ePart | Scientific Conference | 2023 |
| IEEE Euro S&P | Scientific Conference | 2023 |
| ESORCIS | Scientific Conference | 2023 |
| ICIS | Scientific Conference | 2023 |
| SEMIC | Conference | 2023 |

Annex D – Templates of monitoring tools

ACES is implementing a Communication, dissemination and exploitation monitoring system, which will require partners to file updates every six months and at each reporting period filling in an excel file to track communication performance. This is composed of the following tables. The target KPIs have also been specified in the headings.

The website analytics, as described in section 2.2 of Deliverable D6.1., is designed and managed with separate tools.

| EVENTS IN WHICH BENEFICIARIES HAVE PARTICIPATED | | | | | | | | | |
|---|-------------|---|------|-------|---|--|--|---------------|-------|
| TARGET KPIs: 10 Presentations, 20 Attendance | | | | | | | | | |
| Partner | Event Title | Type of Event | Date | Place | Audience | Audience geographical area | Range of participant number | Documentation | Notes |
| | | (Conference, Seminar, Lesson, Workshop) | | | (Academic, industrial, institutional, policy, general public) | (local, regional, national, EU, International) | (up to 50; up to 150; up to 500; over 500) | (link) | |

| ACES EVENTS ORGANISED | | | | | | | | | |
|---|-------------|---|------|-------|---|--|--|---------------|-------|
| TARGET KPIs: 2 Workshops, 4 Demo events | | | | | | | | | |
| Partner | Event Title | Type of Event | Date | Place | Audience | Audience geographical area | Range of participant number | Documentation | Notes |
| | | (Conference, Seminar, Lesson, Workshop) | | | (Academic, industrial, institutional, policy, general public) | (local, regional, national, EU, International) | (up to 50; up to 150; up to 500; over 500) | (link) | |

| NEWS AND PRESS RELEASES | | | | | | | | | |
|--|-----------------------|---|------|---|-------|--|--|--|--|
| TARGET KPIs: 9 eNewsletters; 2 videos; 5 blog posts in EC mechanisms; 5 project's factsheets/brochures and banners; 3 traditional press releases | | | | | | | | | |
| Partner | Text of Press Release | Link to Press Release | Date | Target | Notes | | | | |
| | | (Conference, Seminar, Lesson, Workshop) | | (Academic, industrial, institutional, policy, general public) | | | | | |

| ARTICLES, PAPERS, BOOK CHAPTERS, OTHER SCIENTIFIC PUBLICATIONS | | | | | | | | | |
|---|---------------------|---------------------|----------------------------|---|--|--------------------|---------------------|--------|--|
| TARGET KPIs: 10 conference papers; 4 journal papers; 4 articles in industry magazines | | | | | | | | | |
| Partner | Type of publication | Link to publication | Link to project repository | Target | Audience geographical area | Date of submission | Date of publication | Notes | |
| | | | | (Academic, industrial, institutional, policy, general public) | (local, regional, national, EU, International) | | | (link) | |

| Community Building, Stakeholder engagement | | | | | | | | | |
|---|--------------|-----------------|------|---|--|---------------|-------|--|--|
| TARGET KPIs: 50 industry contact points; 5 industry communities engaged; 2 webinars | | | | | | | | | |
| Partner | Contact type | Name of contact | Date | Audience | Geographical area | Documentation | Notes | | |
| | | | | (Academic, industrial, institutional, policy, general public) | (local, regional, national, EU, International) | (link) | | | |

| Collaborations and synergies with projects | | | | | | | | | |
|--|--------------|-----------------|------|---------------------------|--|---------------|-------|--|--|
| TARGET KPIs: 5 projects with synergies; 4 joint activities | | | | | | | | | |
| Partner | Synergy type | Name of contact | Date | Category | Geographical area | Documentation | Notes | | |
| | | | | (synergy; joint activity) | (local, regional, national, EU, International) | (link) | | | |

| INTERNAL DISSEMINATION IN PARTNER'S NETWORK | | | | | | | | | |
|---|-------------|---|------|-------|---|--|---------------|-------|--|
| TARGET KPIs: 10 internal partner events; 30 links to project website; 4 training sessions | | | | | | | | | |
| Partner | Event Title | Type of Event | Date | Place | Audience | Range of participant number | Documentation | Notes | |
| | | (Conference, Seminar, Lesson, Workshop) | | | (Academic, industrial, institutional, policy, general public) | (up to 50; up to 150; up to 500; over 500) | (link) | | |

| SOCIAL MEDIA PRESENCE | | | | | | | | | |
|--|---------------|------|---------------------|---------------|-------|--|--|--|--|
| TARGET KPIs: 750 accumulative followers; 1000 accumulative posts; 250 interactions | | | | | | | | | |
| Partner | Social medium | Date | Number of followers | Documentation | Notes | | | | |
| | (link) | | | (link) | | | | | |

| PROJECT BLOG | | | | | | | | | |
|--|-----------|------|-------------------|---------------|-------|--|--|--|--|
| TARGET KPIs: N. of engagements: 250 interactions; 50 posts | | | | | | | | | |
| Partner | Blog link | Date | Number of replies | Documentation | Notes | | | | |
| | (link) | | | (link) | | | | | |

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