SYCLOPS

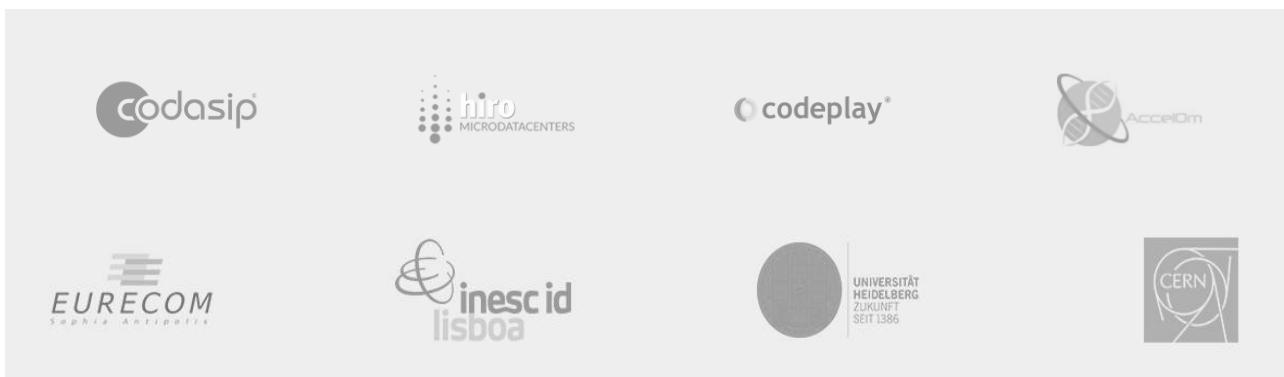# Deliverable 6.4 – Communication, Networking and Dissemination Plan and Activities M24

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D6.4 – Communication, Networking and Dissemination Plan and Activities M24			
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The SYCLOPS consortium consists of the following partners:

No.	Partner Organisation Name	Partner Organisation Short Name	Country
1	EURECOM	EUR	FR
2	INESC ID - INSTITUTO DE ENGENHARIADE SISTEMAS E COMPUTADORES, INVESTIGACAO E DESENVOLVIMENTO EM LISBOA	INESC	PT
3	RUPRECHT-KARLS-UNIVERSITAET HEIDELBERG	UHEI	DE
4	ORGANISATION EUROPEENNE POUR LA RECHERCHE NUCLEAIRE	CERN	CH
5	HIRO MICRODATACENTERS B.V.	HIRO	NL
6	ACCELOM	ACC	FR
7	CODASIP S R O	CSIP	CZ
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Statement of Originality

This deliverable contains original unpublished work except where clearly indicated otherwise. Acknowledgement of previously published material and of the work of others has been made through appropriate citation, quotation or both.

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Executive Summary

In deliverable D6.1, we had outlined the preliminary version of our Communication, Networking, and Dissemination Plan that included a variety of measures and activities to identify the consortium members' roles, analyse stakeholders' needs, build a community around SYCLOPS, and establish and maintain an effective communication and dissemination. In deliverable D6.3, we had provided an update to this plan at M12. This deliverable is the M24 progress update of the plan.

1 Introduction

The SYCLOPS Communication, Networking and Dissemination Plan was outlined in D6.1, with a list of KPIs and Objectives outlined for both Dissemination and Communication. The M12 update that covered the progress made at the end of the first year with reference to the identified KPIs and Objectives was submitted in D6.3. This is the M24 Update of the Communication, Networking and Dissemination Plan and Activities deliverable. This is part of WP6, and relates specifically to Objective 5 of the SYCLOPS Project which is outlined below,

Obj 5 (Exploitation, Dissemination, Standardization): To foster an open, innovative European ecosystem for accelerated AI and analytics by leading and feeding back to standardization efforts and communicating project outcomes via already well-established dissemination channels and developer communities.

The rest of this document is organized as follows. Section 2 of this report will recap the Dissemination KPIs and Strategy, while Section 3 will focus on the Communication KPIs and Objectives.

2 Dissemination

Dissemination aims to share scientific results, contribute to the wider academic ecosystem, advance technologies and maximise the impact of the project on society. In D6.1 deliverable, we outlined the following objectives of dissemination in SYCLOPS.

- D.O.1: Ensure maximum visibility of the project in the target audiences via appropriate key messages.
- D.O.2: Diffuse the scientific and technological knowledge generated in the project within and beyond the project's consortium in a timely manner.
- D.O.3: Establish liaisons with other projects and initiatives for knowledge and innovation transfer.
- D.O.4: Engage the targeted audiences to get feedback and validate results.
- D.O.5: Attract potential users/clients and stimulate the appropriate market segments to support the project's exploitation strategy.
- D.O.6: Encourage the development of further outcomes in new initiatives.

In D6.1 deliverable, we also outlined the list of dissemination mechanisms that are planned to achieve the aforementioned objectives as listed below.

- D.M.1: Organization of project events
- D.M.2: Conference/workshop participation
- D.M.3: Scientific publications
- D.M.4: Community Building, Stakeholder Engagement
- D.M.5: Synergies with projects
- D.M.6: Internal dissemination
- D.M.7: Standardization contributions

2.1 Dissemination Strategy

In the D6.1 deliverable, we also outlined a Dissemination Plan and Strategy. The dissemination activities of SYCLOPS will be divided into four phases:

1. Raise Awareness (M1 – M12): This phase includes the creation of awareness about the project by using various channels such as social media platforms, project website, flyer, banner, posters.
2. Inform and Interact (M12 – M24): 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 (M24 – M36): This phase includes the promotion of SYCLOPS benefits to potential users through targeted campaigns such as email campaigns or publications on websites, as well as engaging with stakeholders (e.g. workshops, high-level roundtables) to spread awareness about the project's objectives, benefits and outcomes.
4. Post-Project Communication: This phase includes communications and updates on the progress made during and after the project implementation such as evaluation reports or success stories related to SYCLOPS's contribution towards AI acceleration market on both an Industry level and Policy level.

We are currently in M24 of this plan, and hence at the completion of the "Inform and Interact" phase. During this phase, all dissemination mechanisms D.M.1 to D.M.7 are expected to have a high intensity with the goals D.O.1 through D.O.4. We have taken several steps towards meeting both these objectives. Here, we provide an update with respect to each dissemination mechanism

2.1.1 D.M.1 Project Events

Before the mid-term review at M20, we had organized four events. The first is the "oneAPI Iberian Tour" workshop that covered profiling tools and models that are covered in SYCLOPS. The second is a computing hackathon workshop led by CERN which covered various SYCL tools and libraries in SYCLOPS including Cling and SYCL-ROOT. The third is a Hackfest at IWOCL 2024 where UHEI was one of the organizers and covered AdaptiveCpp. The fourth is a hackathon at the RISC-V Summit Europe in 2024 targeting researchers and students, where participants were presented a problem on accelerating neural networks on small in-order cores with optimized C-code and custom RISC-V instructions with access to Codasip Studio. UHEI has also presented four tutorials about AdaptiveCpp work done in SYCLOPS in ISC'23, IWOCL'23, ISC'24, and IWOCL'24.

Since the review, the SYCLOPS Project has continued to make good progress with dissemination at events and conferences. CPLAY has presented on the main stage of the RISC-V NA Summit, in which their work on the oneAPI Construction Kit was explained to audiences, with the SYCLOPS Project highlighted as motivation for this work. This has received hundreds of views online and was presented to a packed in-person audience. The oneAPI Construction Kit and how to use it to provide OpenCL and SYCL support on RISC-V CPUs was also presented by CPLAY to a technical audience at the 1st Open-Source RISC-V Software Workshop at the RISC-V summit. This talk showed results obtained from a powerful RISC-V platform hosted/shared by EURECOM. Additionally, Ivan Kabadzhov of EURECOM presented on SYCLDB and the SYCLOPS Project at the first, virtual oneAPI DevSummit hosted by the UXL Foundation. This was a great opportunity to present the SYCLOPS Project to knowledgeable colleagues from across the industry, and these DevSummits will continue to provide good opportunities for knowledge sharing, project amplification and network building.

2.1.2 D.M.2 Conference/workshop attendance

On the academic front, we have made good progress with conference attendance (IWOCL'24, ISC'24, PASC'24, DAC'24, etcetera), and we have been active in disseminating information about the SYCLOPS Project at these via invited talks/keynotes, tutorials, and panel participations. As our research activities produce more results, we expect this activity to continue at a steady state in the next few years.

2.1.3 D.M.3 Publications

Our consortium members have collectively published 8 papers in leading journals and conferences (VLDB, CIDR, ISC, EUROPAR, Nature Sci Reports) covering a wide range of topics. Active research is being pursued on several aspects of the SYCLOPS stack, and we expect to see increased output in the third year as the project reaches more conclusions in our ongoing research.

2.1.4 D.M.4 Community

We have already engaged with 5 communities: (i) on the SYCL front, we are actively engaged with oneAPI community, with SYCLOPS partner CPLAY playing a pivotal the newly

established UXL foundation[1]. Our partner INESC-ID has also presented a popular webinar that spans the use of SYCL performance profiling and modelling tools for achieving efficient cross-architecture acceleration[2]. On the RISC-V front, our partner CSIP is a founding member of the RISC-V foundation and is actively engaged with the RISC-V community in Europe and beyond. Third, we are also actively engaged with hardware community, especially hardware for AI/analytics acceleration. An example of this is the collaboration between CPLAY and Axelera AI on expose their custom AI accelerators via OCK. Fourth, our partner HIRO is actively engaged in edge computing industry and is using this channel to disseminate work carried out in SYCLOPS. Fifth, on the application front, our partner ACCELOM has engaged with the bio banking and bioinformatics communities in India through their ongoing collaboration with Sapien Biosciences. In an online events organized by Sapien Biosciences, information about SYCLOPS and its goals for accelerating computational genomics have been shared with clinicians and bioinformaticians in a webinar. At the recent 2024 North America RISC-V summit in Santa Clara the oneAPI Construction Kit was also presented by the AI toolchain company Embecosm as an AI enabler for RISC-V accelerators.

2.1.5 D.M.5 Project Synergy

We have established synergy with six other European projects as part of the newly-formed DataNexus Cluster[3]. Together we have produced an initial brochure. We have also established synergy with Vitamin-V project which has a complimentary focuses, as Vitamin-V focuses on cloud services based on cutting-edge cloud open-source technologies for RISC-V cores, while we focus on hardware acceleration. We have already actively participated and given talks in workshops organized by Vitamin-V (CompContinuum workshop at HIPEAC, RISC-V open source software at the RISC-V summit).

2.1.6 D.M.6 Internal Dissemination

We have organized the first General Assembly meeting on September 4th, 2023. The second GA meeting was organized on September 9, 2024. We have also instituted a "Research Highlights" section in our monthly plenary meeting where one partner presents a deep dive of their respective software/hardware component. These deep dives were recorded, shared on the SYCLOPS youtube channel[4], and disseminated via SYCLOPS blog and other social media accounts.

2.1.7 D.M.6 Standardization Contributions

In the second year, we have continued to work worked on contributing to standardization efforts on both software (SYCL) and hardware (EMDC, RISC-V) fronts.

SYCL standardization. On the SYCL front, CPLAY continues to be a key member in the Unified Acceleration Foundation, which includes companies such as Intel, Samsung, Fujitsu, Google, Arm and more. The Foundation recently added the oneAPI Construction Kit to its governance. This is great news for the SYCLOPS Project as it will see the work undertaken as part of SYCLOPS become standardized, with greater collaboration and input from the wider

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[1] https://uxlfoundation.org/
[2] https://www.intel.com/content/www/us/en/developer/videos/inescid-9x-speedup-epistasis-disease-detection.html

[3] https://extract-project.eu/introducing-datanexus/
[4] https://www.youtube.com/@syclopseu

ecosystem on the oneAPI Construction Kit. This will continue to be a great opportunity for the SYCLOPS Project to engage with industry partners.

Our partner UHEI has also been actively involved in standardization as a member of the Khronos Group and SYCL Working Group. As a member of the SYCLOPS Project, At the Khronos Face2Face meeting in Brussels, UHEI presented AdaptiveCpp and raised a number of issues in the current SYCL specification which will be addressed in the next revision. AdaptiveCpp extensions (like sycl::specialized) were also presented as potential features for standardization in the next SYCL version.

Hardware standardization. On the hardware front, CSIP is a founding member of the RISC-V foundation. They have actively participated in several activities of RISC-V international (participation in SAFETY-SIG, AUTO-SIG, DSP-SIG, and chairing Security Model Task Group, Former Code Size Task Group). Our partner HIRO has discussed with the PICMG (PCI Industrial Computer Manufacturers Group) the uptake of CXL capable SoCs (Intel, AMD, RISC-V) in the Com-HPC standard. The com-HPC standard, designed for high-performance computing (HPC) and embedded applications, provides a robust platform that is being prepared to accommodate the latest technologies, such as PCIe Gen 5 and USB4. PICMG is planning to incorporate advanced technologies into their modules, including support for CXL (Compute Express Link). As HIRO is using this standard to develop the next generation of their powerful edge data center, we initiated a discussion with PICMG about uptake of CXL capable SoCs.

2.2 Dissemination KPIs

In the D6.1 deliverable, the following KPIs were identified for dissemination. A new column (KPI Results at M24) has been added to the table based on the status at M24. To note, these KPIs are set for the lifetime of the project and so we do not expect to have completed these at this stage in the project's lifespan.

Table 1: Dissemination KPIs

Activity	KPI Targets	KPI Results at M24
D1 – Project Events	2 workshops organized, **3** demo events	**1 workshop, 3 hackathons, 4 tutorials**
D2 – Conferences	**20** events attended, presented **in 10** events, **2** project demo booths	**21 events, with talks (keynotes, research presentations etc) in all of these**
D3 – Publications	At least **10** papers/articles in conferences, journals, and magazines	**8 papers**
D4 – Community	**5** industry communities informed, **2** webinars	**5, 2**
D5 – Project Synergy	**3** projects with synergies, **3** joint activities	**6, 2**
D6 – Internal Dissemination	**10** internal partner events, **4** training sessions	**1 general assembly + multiple Research highlight plenaries with tutorials and deep dives.**

2.3 Future Dissemination Planning

So far, we outlined the dissemination activities carried out until M24. The table below shows the upcoming dissemination phase of the project, together with their relevant dissemination objectives.

Table 2: Dissemination phases

Dissemination Mechanism	SYCLOPS Ph. I to Ph. II: Raise Awareness (M1-M12)	SYCLOPS Ph. II to III: Inform & Interact (M12-M24)	SYCLOPS Ph. III to IV: Promote (M24-M36)
D1. Organization of Project Events	DO. 1, 3 Activities' Intensity: Low	D.O. 1, 2, 3, 4 Activities' Intensity: High	D.O. 2, 3, 4, 5, 6 Activities' Intensity: High
D2. Conferences, Workshops Participation			
D3. Scientific Publications		Target Audience: ALL	Target Audience: ALL
D4. Community Building, Stakeholder Engagement	Target Audience: ALL		
D5. Synergies with Projects			
D6. Internal Dissemination in Partner's Networks			
D7. Standardization Contributions			

Over the next 12 months, we will continue to build on our established liaisons with other projects for knowledge and innovation transfer (D.O.3). In addition, as our use cases and research activities start producing more results, we will disseminate them broadly audiences both internal and external to SYCLOPS (D.O.2). As the open-source software/hardware results of SYCLOPS mature, we will engage targeted audiences to test and demo our solutions and solicit feedback to validate results (D.O.4). These activities will be reflected in the final M36 update with more progress toward meeting the KPIs shown in Section 2.2.

3 Communication

Through effective communication, we aim to engage with wider audiences to generate interest in the project. This should attract potential users, developers and contributors while also generating demand for the SYCLOPS Project by effectively conveying the problem statement, and successes of the SYCLOPS Project in solving this problem.

In D6.1, we identified the following communication objectives:

- C.O.1: Create project awareness among potential adopters/users in the general public
- C.O.2: Convey the project's concept, goals, results through key messages in communication material
- C.O.3: Activate a community of users, collect feedback
- C.O.4: Prepare for the exploitation of the project's results
- C.O.5: Targeted dissemination of the project's results
- C.O.6: Foster adoption of the project's results in industry and society

In D6.1, we also outlined a list of communication mechanisms that we will use to achieve the aforementioned objectives.

- C.M.1: Project website
- C.M.2: Social media presence
- C.M.3: Project blog
- C.M.4: Traditional media
- C.M.5: Communication material

3.1 Communication Strategy

Similar to dissemination, communication in SYCLOPS also follows the four-phased approach: (i) Raise Awareness (M1-M12), (ii) Inform and interact (M12-M24), (iii) Promote (M24-M36), and (iv) post-project communication. At M24, we are in the "inform and interact" phase of communication. At this stage, the target is to use communication mechanisms to primarily target objectives C.O.1 through C.O.5. Below, we described our activities in the second-year of the project for each communication mechanism.

3.1.1 C.M.1: Project Website

The SYCLOPS Website has been further optimised for SEO with the publication of our blog posts, has had a section on the advisory board added and continues to be the home of our published, publicly accessible deliverables.

We have also switched from Google Analytics to Fathom Analytics, which allows the website to be even more performant without the need for cookie storage and pop-ups, which can worsen the user experience. Fathom Analytics is compliant with EU law and best standards for ensuring anonymous browsing and minimal data collection, while also allowing us to view the most important analytics (avg. time on site, number of unique views, etc...) in a much more streamlined and simplified way. We will be remaining with Fathom Analytics for the duration of the project and using it to measure our progress against the relevant communication KPIs.

3.1.2 3.1.1 C.M.2: Social Media Presence

As we complete more work for the SYCLOPS Project over the next year, we will continue to seek beneficial partnerships such as these to best maximise the project's visibility. We will also use the blogs written by partners as an opportunity to promote the project across social media, and will intensify our efforts to ensure all partners send materials that we can use on social media from any relevant events that they attend throughout the year.

3.1.3 C.M.3: Project Blog

As we conclude the second year of the project, we have made good progress with our blog posts – having already met the KPI for interactions with these blog posts via social media amplification. We will continue to publish more blogs over the next year of the project with greater intensity, and in order to accomplish this we have prepared a blog template that is available to all partners. We will use this template to encourage partners to write more blogs that the SYCLOPS Project can publish and promote. Furthermore, we have recorded a series of long-length technical "deep dive" videos and it will be a priority for us to have partners write accompanying blog content for these videos in the first months of the next year, which we will then publish on the SYCLOPS website.

3.1.4 C.M.4: Traditional Media

We continue to be successful in this area, and have most recently had CPLAY's work on the SYCLOPS Project amplified by RISC-V across their YouTube channel with a talk by Charles Macfarlane that touches on the oneAPI Construction Kit and its role in the SYCLOPS Project. Additionally, RISC-V promoted a blog prepared by CPLAY that announces the RISC-V support brought to the oneAPI Construction Kit as part of the SYCLOPS Project. This was also announced on the main RISC-V social media channel and was a great boost to the visibility of the project. This work was also promoted in news articles.

We will focus on the publication of press releases across the next year of the project, which should be possible as we announce completed work and outcomes from our efforts as part of SYCLOPS. As part of the DATANEXUS Cluster, SYCLOPS will be involved in a White Paper for Extreme Data Analytics to be published by the end of 2025.

3.1.5 C.M.5: Communication Material

This has been a very successful year for our communication material. We now have a project brochure, as well as an additional factsheet through the SYCLOPS Project's participation in the recently formed DATANEXUS Cluster with six other research projects focusing on Extreme Data from across Europe. We have also commissioned a professionally animated SYCLOPS introduction and explainer video, which has been integrated with the SYCLOPS website homepage. In January of next year, we will work with all partners to begin promoting this video and maximise views over the course of the year. This video can also be embedded in presentations, and played at the stands of partners when exhibiting at conferences.

3.2 Communication KPIs

In D6.1, the following KPIs were identified to measure the success of each communication activity over the lifetime of the project,

Table 3: Communication KPIs

Activity	KPI Targets	KPI Progress at M24
C1 – Website	**5000** unique visitors, **1** min. average visit duration, **10000** page views	**909 unique visitors, 1.24min average, 1900 views**
C2 – Social Media	**500** accumulative followers, **250** interactions	**214, 250+**
C3 – Blog	**50** posts, **100** interactions	**18 posts, 100+ interactions**
C4 – Media	**3** press releases	**1**
C5 – Materials	**5** project factsheets/brochures and banners, **9** eNewsletters, **2** videos, **5** blog posts in EC mechanism	**1 project brochure, 1 factsheet, 5 videos, 0 EC blogs, 0 eNewsletters**

Overall, SYCLOPS is well on its way to achieving its communication KPIs. We would just like to point out a few key aspects that affect these KPIs. For the C1 KPI, for our website, the estimates are conservative as Google Analytics tracking was implemented only in January 2024 (at M12). In any case, we will regularly highlight this website across our socials and use QR codes on brochures to generate traffic to the site. For C3 KPI, we have set an aggressive target of 50 blogs, and we are pushing towards this. But the high-quality nature of our blogs is already visible in the number of interactions, as we have exceeded that KPI at M24 already. As we move into the third year of the project, we expect use case and research activities to mature and contribute substantially to all KPIs. In particular, we will be making project factsheets/brochures about research results and software frameworks developed in SYCLOPS that will be taken to events attended by consortium members. This will contribute to KPIs C4 and C5.

4 Conclusion

This document constitutes the M24 update of the Communication, Networking and Dissemination Plan and Activities and outlines activities conducted so far to ensure that the project's development and results are effectively communicated to all relevant stakeholders. The second year of the project marks the "Inform and Interact" phase of our three-phased dissemination and communication plan. Thus, our KPIs are broadly where we would expect them to be at this stage in the project. We will now move to the "Promote" phase of the project. We expect communication and dissemination activities to accelerate using all mechanisms listed in D6.1, D6.3 and in this document.