

A Lightweight Software Stack and Synergetic Meta-Orchestration Framework for the Next Generation Compute Continuum

D8.1 Dissemination, Communication and Exploitation Plan

Document Identification			
Status	Final	Due Date	30/11/2022
Version	1.0	Submission Date	30/11/2022

Related WP	WP8	Document Reference	D8.1
Related	N/A	Dissemination Level (*)	PU
Deliverable(s)			
Lead Participant	ATOS IT	Lead Author	Belén Gallego
Contributors	ZHAW, ERCIM,	Reviewers	Antonio Salvador (FBC)
	ECL, FBA, FBC, IBM, ININ		Symeon Papavassiliou (NTUA)

Keywords:
Dissemination, Communication, Exploitation, Business Plan, Strategy

Disclaimer for Deliverables with dissemination level PUBLIC

This document is issued within the frame and for the purpose of the NEPHELE project. This project has received funding from the European Union's Horizon Europe Framework Programme under Grant Agreement No.101070487. The opinions expressed and arguments employed herein do not necessarily reflect the official views of the European Commission.

The dissemination of this document reflects only the authors' view, and the European Commission is not responsible for any use that may be made of the information it contains.

This document and its content are the property of the NEPHELE Consortium. The content of all or parts of this document can be used and distributed provided that the NEPHELE project and the document are properly referenced.

Each NEPHELE Partner may use this document in conformity with the NEPHELE Consortium Grant Agreement provisions.

(*) Dissemination level: **PU**: Public, fully open, e.g., web; **CO**: Confidential, restricted under conditions set out in Model Grant Agreement; **CI**: Classified EU RESTRICTED, EU CONFIDENTIAL, **Int** = Internal Working Document, information as referred to in Commission Decision 2001/844/EC.



Document Information

List of Contributors	
Name	Partner
Belén Gallego	ATOS
Eloísa Villar	ATOS
Leonardo Militano	ZHAW
Weronika Gasior	FBA
Diana Jarve	FBA
Inés Arias	FBC
Antonio Salvador	FBC
Dave Raggett	ERCIM
Marie-Claire Forgue	ERCIM
Marco Jahn	ECL
Rosaria Rossini	ECL
Sofiane Zemouri	IBM
Rudolf Susnik	ININ
Anastasios Zafeiropoulos	NTUA

Document H	Document History		
Version	Date	Change editors	Changes
0.1	30/09/2022	Belén Gallego	First draft
0.2	27/10/2022	Eloísa Villar	Website sitemap added
0.3	03/11/2022	Eloísa Villar	Section 2 and general proofreading and style correction
0.4	04/11/2022	Belén Gallego	Integration of sections 3 and 6 and provisional Section 5
0.5	07/11/2022	Belén Gallego & Eloísa Villar	Integration of Section 4 and general proofreading and style correction
0.6	8/11/2022	Belén Gallego & Eloísa Villar	Integration of section 3.8 and general proofreading and style correction
0.7	11/11/2022	Belén Gallego	Integration of ERCIM comments to section 2 and IBM and ININ comments to section 5
0.8	11/11/2022	Antonio Salvador, Anastasios Zafeiropoulos	General revision of the document and changes in section 2
0.9	29/11/2022	Belén Gallego & Eloísa Villar	Quick revision of section 2 & KPIs
1.0	29/11/2022	Symeon Papavassiliou	Final version to be submitted

Quality Control		
Role	Who (Partner short name)	Approval Date
Deliverable leader	Belén Gallego (ATOS)	08/11/2022

Document name: D8.1 Dissemination, Communication and Exploitation Plan Page: 2 of 58



Internal reviewers	Antonio Salvador (FBC), Anastasios Zafeiropoulos (NTUA)	11/11/2022
Project Coordinator	Symeon Papavassiliou (NTUA)	29/11/2022



Table of Contents

Document l	nformation	2
Table of Co	ntents	4
List of Tabl	es	6
List of Figu	res	7
List of Acro	nyms	8
Executive S	ummary	10
1 Introduct	ion	11
1.1.Purpo	ose of the document	11
1.2.Relat	ion to other project work	11
1.3.Struc	ture of the document	11
2 Commun	ication strategy	13
2.1.Proje	ct identity definition	13
2.1.1.	What is NEPHELE about	
2.1.2.	Key Messages	
2.1.3.	Logo & design guidelines	
2.1.4.	Imagery	
2.2. Targe	et group definition and stakeholder groups	17
2.3.Chan	nels	19
2.3.1.	Website	
2.3.2.	Social Media	
2.3.3.	Communication material	
2.3.4.	Materials	
2.3.5.	Media and press releases	
3 Dissemin	ation strategy	
3.1 Scop	e of the dissemination activities	
3.1.1	General objectives	
3.2 Coop	eration with dissemination activities of other projects in the call	
3.3 The s	trategy	
3.3.1	Why to disseminate information about NEPHELE?	
3.3.2	What information is going to be disseminated?	
3.3.3	Who is going to disseminate?	
3.3.4	To whom is it disseminated?	
3.3.5	Where is the best "place" to reach the targeted audience?	
3.3.6	When should the message be delivered to increase efficiency?	
3.3.7	How to deliver the most effective message?	
3.4 Disse	mination methods, tools, and channels	



3.4.1	Dissemination activities to specific target audiences	
3.5 Scie	entific Papers, Technical Demos/Presentations and Journal Publications	35
3.5.1	Open access strategy	39
3.5.2	Guidelines for partners	40
3.5.3	Public and open access technical deliverables	41
3.6 Eve	nts and workshops	42
3.7 Ope	n source and open standard communities list	42
3.8 Ope	n Call dissemination strategy	43
3.8.1	Preparation for the Open Calls	
3.8.2	Launching and running of the Open Calls	44
3.8.3	Closing the Open Call	45
4 Standar	lisation activities	46
4.1 Wh	ich standards will be used during the project?	46
4.2 Con	tributions to standards development organisations and industry fora	48
4.2.1	Standardisation bodies and industry fora where W3C is already active	
5 Exploita	ation strategy	49
6 Open so	urce strategy	51
7 Manage	ment and reporting	54
8 Key Per	formance Indicators (KPIs)	55
8.1 Cor	nmunication KPIs	55
8.2 Diss	semination KPIs	56
9 Referen	ces	57
Annexes		58



List of Tables

Table 1: Target groups audience and materials	
Table 2: NEPHELE's sibling projects	2
Table 3: Coordination and Support Actions of interest	2
Table 4: Planned dissemination activities	
Table 5: Dissemination activities to the industry and stakeholders	
Table 6: Dissemination activities to the Scientific & Technology community	
Table 7: Dissemination activities to direct contacts with businesses identified as potential users of Project	
results	
Table 8: Dissemination activities to the press and public	
Table 9: Dissemination activities for technology transfer	
Table 10: Dissemination activities for training to university students	
Table 11: Identified Academic Conferences	
Table 12: Identified Industrial Conferences	
Table 13: Identified Journal Publications	
Table 14: List of Dissemination Requests	
Table 15: Publication Report Form	_ 4
Table 16: Dissemination Activity Report Form	_ 4
Table 17: List of Public and open access technical deliverables	_ 4
Table 18: NEPHELE Open Call Activities	_ 4
Table 19: NEPHELE overview of the main exploitation assets (From NEPHELE DoA)	_ 4
Table 20: Open Source Strategy Timeline	
Table 21: NEPHELE Communication KPIs	
Table 22: NEPHELE Dissemination KPIs	



List of Figures

Figure 1: NEPHELE logo (positive)	14
Figure 2: NEPHELE colour palette	15
Figure 3: NEPHELE logo (negative)	16
Figure 4: Example of NEPHELE imagery	16
Figure 5: Poppins font	. 17
Figure 6: An example of NEPHELE Tweet Card for social media	. 17
Figure 7: NEPHELE website - Home	. 19
Figure 8: NEPHELE favicon - Navigation bar/ browsing story	. 19
Figure 9: NEPHELE Project website - Sitemap	20
Figure 10: NEPHELE Twitter profile	. 22
Figure 11: NEPHELE YouTube channel	. 22
Figure 12: NEPHELE Deliverable Template	. 24
Figure 13: NEPHELE Presentation Template	. 24
Figure 14: Completing the Funding section with NEPHELE grant when uploading a publication to Zenodo _	40
Figure 15: Framework for successful, business-friendly open source	53



List of Acronyms

Abbreviation /	Description
acronym	Description
5G	Fifth-generation technology standard for broadband cellular networks
5GPPP	5G Infrastructure Public Private Partnership
AI	Artificial Intelligence
AIOTI WG	The Alliance for Internet of Things and Edge Computing Innovation Working
API	Group Application Programming Interface
ATOS	Atos IT Solutions and Services Iberia SL, partner 4 of NEPHELE Consortium
B5G	
	Beyond 5G (networks)
CA	Consortium Agreement
CEI	Cloud-Edge-IoT
CG	Communication Group
CIM	Context Information Model
CNCF	Cloud Native Computing Foundation
CSA	Coordination and Support Action
DM	Direct message (social networks)
DoA	Description of the Action
Dx.y	Deliverable number y belonging to WP x
EC	European Commission
ECL	Eclipse Foundation Europe GmbH, partner 11 of NEPHELE Consortium
ENI	Experiential Network Intelligence
ERCIM	GEIE ERCIM, partner 16 of NEPHELE Consortium
ETSI	European Telecommunications Standards Institute
EU	European Union
FAQ	Frequently asked questions
FBA	FundingBox Accelerator sp. Zo.o., partner 7 of NEPHELE Consortium
FBC	FundingBox Communities sl, affiliated entity or linked third party of FBA in NEPHELE Consortium
FSTP	Financial Support for Third Parties
GA	Grant Agreement
GfA	Guidelines for Authors
GPL	General Public License
IBM	IBM Ireland Limited, partner 13 of NEPHELE Consortium
ICOS	IoT-Cloud Operating System
ICT	Information and Communication Technologies
IIC	Industrial Internet Consortium
ID management	Identity management
IEEE	Institute of Electrical and Electronics Engineers
IETF	Internet Engineering Task Force
IG	Internet Group
10	



Abbreviation /	Description
acronym	
ININ	Internet Institute, Communications Solutions and Consulting Ltd, partner 10 of NEPHELE Consortium
ІоТ	Internet of Things
IP	Intellectual Property
IPR	Intellectual Property Rights
ISG	Industrial Specification Group
ISO	International Organisation for Standardisation
ITU	International Telecommunication Union
KPI	Key Performance Indicator
M2M	Machine-to-Machine
ML	Machine Learning
Mx	Month x of the project
NFV	Network Function Virtualisation
OC	Open Call
OCF	Open Connectivity Foundation
OSM	Open Source Management and orchestration
PEST	Political, Economic, Social and Technological
Q&A	Questions and answers
R&D	Research and Development
R&I	Research and Innovation
ROS	Robot Operating System
RT	Retweet
RTD	Research and Technology Development
SME	Small and Medium-sized Enterprise
SN	Social Networks
SWOT	Strengths, Weaknesses, Opportunities and Threats
TBD	To be defined
TRL	Technology Readiness Level
VO	Virtual Object
VOs	Virtual Objects
W3C	World Wide Web Consortium
WG	Working Group
WoT	Web of Things
WP	Work Package
ZHAW	Zürcher Hochschule fúr Angewandte Wissenschaften, partner 17 of NEPHELE Consortium
ZSM	Zero-touch networks and Service Management



Executive Summary

NEPHELE is a Research and Innovation Action with a duration of 36 months involving 17 partners from 9 countries and several sectors. The project aims to "enable the efficient, reliable and secure end-to-end orchestration of hyper-distributed applications over programmable infrastructure that is spanning across the compute continuum from Cloud-to-Edge-to-IoT, removing existing openness and interoperability barriers in the convergence of IoT technologies against cloud and edge computing orchestration platforms, and introducing automation and decentralised intelligence mechanisms powered by 5G and distributed AI technologies" [1].

This document presents the NEPHELE's project's dissemination, communication and exploitation plan and provides the communication and dissemination roadmap of the project, along with the implementation of the project website. It includes the goals and mechanisms for the outreach activities and the first materials that have been prepared to be shared with the target audiences. The branding produced by the NEPHELE's consortium is also presented.

D8.1 also defines the instruments that will be used during the project execution to reach the target audiences and the Key Performance Indicators (KPIs) that the consortium aims to achieve.

This document will be updated two times along the lifetime of the project, including KPIs and main outcomes achieved during each period through deliverables D8.2 and D8.3. These updates will take place in M18 and M36.



1 Introduction

1.1. Purpose of the document

This deliverable describes the strategy for dissemination, communication, standardisation, open-source communities and exploitation, along with the implementation of the project website and social networks.

The purpose of this document is to present the strategy on WP8 tasks that will guide the activities for the whole project in order to maximise its impact on the defined target audiences, and to present the KPIs defined that will allow to monitor and evaluate the success of the work performed on this WP.

As stated in the NEPHELE Description of Action (DoA) [1], the objectives of WP8 are:

- To undertake the continuous dissemination, promotion and exploitation activities, maximising the impact of the project to the best possible extent.
- To coordinate standardisation activities based on the technical outcomes of the project.
- To maximise the impact of the project aligning business opportunities with the technical activity and creating exploitation plans both at individual and joint level.

- To interact and obtain feedback from other relevant projects, initiatives, and stakeholders. The document aims to:

- Define the roles of the partners in the different work package tasks.
- Identify the channels and tools for this WP to be used along the project.
- Define communication, dissemination, standardisation, exploitation, and open-source strategies.
- Set the KPIs to measure the success of this WP.
- Set the baseline for the creation of a calendar that will gather the milestones of all the WP tasks.

WP8 has been led by Atos until M3 and from now onwards it will be led by University of Macedonia (UoM).

1.2. Relation to other project work

The work of this WP is linked to and depends on the progress of the other WPs in the project. The availability of results will feed dissemination activities as well as partners communication actions. This WP is tightly linked to WP7 as it includes the dissemination and communication strategy of Open Calls.

1.3. Structure of the document

This document is structured in 8 major sections:

- Section 2 presents the communication strategy (ATOS).
- Section 3 presents the dissemination strategy (ZHAW).
- Section 4 presents standardisation activities (ERCIM).
- Section 5 presents the exploitation strategy (IBM, ININ).
- **Section 6** presents the open-source strategy (ECL).
- Section 7 presents the KPIs.
- **Section 8** contains the references.

In order to better structure this document and the future dissemination and communication actions, this deliverable includes two separate strategies - one for communication activities and one for dissemination actions. This detailed and more targeted information will allow the consortium to apply tailor-made



communication and dissemination strategies as per objective and target. For this reason, as from now on communication and dissemination are understood as follows:

- The communication activities of Horizon Europe projects go beyond dissemination: communication activities are used to promote the entire project, not just the results. They include a variety of methods: public websites, videos, visual identity social media, leaflets, etc. to make sure that non-specialists can understand the goals and means of the project. The language used in these actions should be simple and avoid, when possible, technical jargon. The target of communication activities includes a much wider audience, including the media and the general public.
- Dissemination activities refer to the public disclosure of results to a specific and specialised audience (e.g., scientific communities, industry stakeholders) using a scientific language and via specific channels. Dissemination aims at maximising the impact of research results in the public domain. The target of dissemination activities is anyone who might benefit from the project results e.g., the scientific community, stakeholders, industry, policy makers, investors, civil society, etc.



2 Communication strategy

As stated in the NEPHELE DoA [1], Task 8.2 will prepare the communication and promotion material and channels needed to address and engage suitable audiences from scientific and stakeholder communities. This task is also in charge of defining a concrete promotion and communication strategy and plan to lead all relevant activities from the very beginning and throughout the project.

The first step is to define the project identity (section 2.1); then the target audience and stakeholder groups potentially interested in the project are identified (section 2.2). Materials and channels are described in section 2.3, and promotion and communication strategy and plan are set in section 2.4.

2.1. Project identity definition

As stated in NEPHELE DoA [1], the project identity definition must provide recognisable, clear and effective messages that can communicate the project vision and results, as well as stimulate interest in the project technology and outcomes.

The project identity is the set of characteristics that describes the project. It includes the key messages to be communicated about it and a set of design elements like the logo, the colour palette, the fonts, the guidelines to use them and the imagery.

2.1.1. What is NEPHELE about

Why is NEPHELE important?

As stated in the DoA [1], due to the present state of the art of **high heterogeneity of IoT technologies** (different types of intelligent IoT devices, communication protocols, information models) there is a set of specific needs that is the main reason for NEPHELE:

- **Need for convergence of IoT technologies** to support interoperability and avoid the necessity for custom solutions and middleware.
- **Need for integration of IoT technologies** with edge computing technologies to enable efficient provision of IoT functions at the edge and take advantage of evolutions in the edge/cloud computing domain.
- Need for the development of open and modular synergetic orchestration mechanisms to tackle diverse requirements across the compute continuum and manage orchestration of hyper-distributed application workloads.
- **Need for support of distributed intelligence mechanisms**, considering the interplay between edge computing functions and functions executed at IoT devices.

NEPHELE expected results

As stated in the DoA [1], several results are expected to arise during the project such as technical outcomes in the form of specifications, design guides and demonstrators and scientific material (documents, papers, research data, etc.):

- **Open-source release of VOStack**, as an IoT and edge computing software stack for leveraging virtualisation of IoT devices at the edge part of the infrastructure and supporting openness and interoperability aspects in a device-independent way.
- **Open-source release of the synergetic meta-orchestration framework** for managing the synergy between cloud and edge computing orchestration platforms.
- Development of a set of Virtual Objects (VOs) for specific types of IoT Devices.
- **Development of a set of IoT** enablers (service mesh functions) and a set of virtualised IoT-specific functions.



• **Implementation of successful demonstrators in a set of vertical industries** based on WP6 activities and on the outcomes of the open call.

2.1.2. Key Messages

Key messages are the main information point that our target audience wants and needs to know and remember about this project. Key messages must be recognisable, clear, and effective and should stimulate interest in the project and its results.

With respect to communication, the goal is to promote the project by providing targeted information to multiple audiences (including the media and the public). This includes non-specialists and stakeholders potentially interested in the application of the results beyond the stakeholders involved in the project use cases. The project will exploit different communication channels to maximise its outreach to different audiences. Statistics of publications, audiences addressed, submitted standard proposals, as well as the number of website visitors will be collected and serve as performance metrics.

NEPHELE will balance traditional and new communication tools, such as social media and online events. Each stakeholder group will be addressed with materials appropriate to its needs, which can include printed materials, social media posts, and live events.

2.1.3. Logo & design guidelines

The logo is the image that will identify the project through the use of a mark or icon. The logo identifies the project in its simplest possible form by the mere use of this mark or icon in a way that makes it recognisable and memorable.

The logo that has been designed for the NEPHELE project is shown in the figure below.



Figure 1: NEPHELE logo (positive)

Logotype font and colours

For the logotype in the brand name two different fonts have been combined: consonants are in Croogle 4F Extra Light and the only vowel "e" is Gillca Thin. Both fonts belong to the sans-serif family, and all the characters in the brand name (NEPHELE) have been used in lower case. The dominant font Croogle 4F, very rounded, communicates the meaning of "user friendly". The only Gillca vowel "e", a bit sharper, confers the meaning that user friendly does not mean too simple or prudish. The font base links our brand name with the following concepts: youth, stable, clean, stylish, progressive, forward thinking, catchy.

The font colour is a gradient between a medium turquoise and a celadon blue.

While the blue hue is frequently associated with professionality, reliability, trustworthiness, calmness, serenity and peace, the turquoise, or teal, with a strong green warmer and more balanced component is not as detached from practical reality as blue is. Turquoise is the colour that we associate to creativity, mental clarity, and emotional stability. This is a colour that stimulates introspective reflection and focuses on the real needs. Tibetans have appreciated the gradual shift of the turquoise stones from blue to green as they are worn since they are extracted from the earth by the chemical reaction due to solar light. In their belief this colour change is the symbol of enlightenment and wisdom. This colour has been



very appreciated for many other cultures: Ancient Egyptians and Greeks, Persian Empire, native American and pre-Columbian cultures.

Tagline

As the tagline or slogan of the project is "A lightweight software stack and synergetic meta-orchestration framework for the next generation compute continuum", for more agile and immediate communication it will only be added to the logo on the website and on certain visual elements such as large posters or brochures with a dark background.

Icon

The icon is essentially a cube in isometric projection, a common graphic design technique that helps depicting 3D figures on a 2D plane. This element provides the feeling of dimension and new technology. It also suggests the idea of a tidy, well-organised central resource to integrate many tiny objects in perfect order. Convergence, integration, modularity, and interoperability are represented here, as are the fundamentals of the Internet of Things.

The cube shows three sides:

- First side on the left represents a radiating icon, with the meaning of communication of elements at a distance, via the Internet.
- The second side on the right represents four small, interconnected squares organised into a node. This is related to edge computing: decentralised storage and processing near the data, bandwidth savings, lower latency, and cybersecurity concerns.
- The third side down shows a cloud enclosing three small circles, and an outer circle that could be a newborn cloud. At the same time, it suggests the idea of an infant building block with the little circles as stumps. This depicts the ideas of meta-orchestration and managing the synergy between cloud and edge computing orchestration platforms.

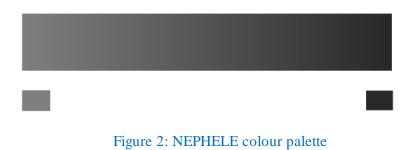
The background of the three cube sides shows lines simulating printed circuit tracks.

Colour palette

The colour palette contains the following colours. For the creation of texts or decorative elements, the use of the following colours in the palette is strongly recommended.



Backgrounds



Document name:	D8.1 Dissemination, Communication and Exploitation Plan Page:	15 of 58
----------------	---	----------



Logo use and guidelines

The guidelines for the use of the NEPHELE logo should be as simple as possible. It should be bome in mind that the logo will be used in presentations, deliverables and other documents by consortium partners who do not necessarily have a background in branding and/or graphical design and concepts. Simplification of the rules to be used is of paramount importance here to guarantee correct usage.

The logo has been created in two versions and the rules are as simple as follows:

- The main version (full coloured logo) is conceived for the website and for printing purposes and must always be used on a dark background.
- The negative version (grey and blue) is designed for frequent use on light backgrounds such as printed white paper, deliverable covers and page headers, and content pages within presentations.



Figure 3: NEPHELE logo (negative)

Both versions of the logo have been uploaded to the project repository to make them available to all project partners.

2.1.4. Imagery

NEPHELE communications (social media posts, website inserts, press releases, leaflets...) should be accompanied by images that convey and reflect the main purpose of the project. These images can have multiple colours, but those on the palette must be the predominant ones. The motives will be circuits, networks, and technology.

In fact, it is proven that tweets with images are 34% more likely to be retweeted than tweets without them [4], which means that the use of imagery and designs such as Canva [5] Tweet Cards will be basic to provide more visibility and guarantee boost engagement across social Networks.

The following figure is an example:

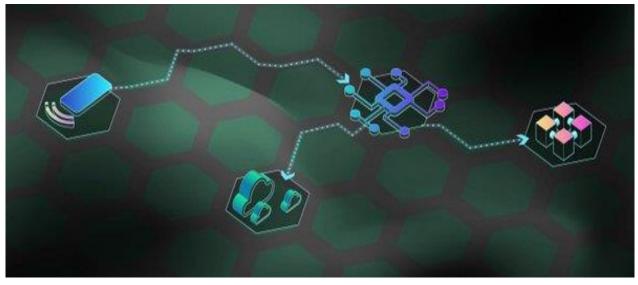


Figure 4: Example of NEPHELE imagery



For the creation of texts inside images, Poppins font is recommended. Poppins is a geometric sans-serif typeface that usually appears in website design. Each letterform is nearly monolinear, with optical corrections applied to stroke joints where necessary to keep a uniform typographic colour [6]:

Poppins regular

Lorem ipsum dolor sit amet, consectetuer adipiscing elit, sed diam nonummy nibh euismod tincidunt ut laoreet dolore magna aliquam erat volutpat. Ut wisi enim ad minim

Poppins italic

Lorem ipsum dolor sit amet, consectetuer adipiscing elit, sed diam nonummy nibh euismod tincidunt ut laoreet dolore magna aliquam erat volutpat. Ut wisi enim ad minim

Poppins semibold

Lorem ipsum dolor sit amet, consectetuer adipiscing elit, sed diam nonummy nibh euismod tincidunt ut laoreet dolore magna aliquam erat volutpat. Ut wisi enim ad minim

Poppins light (use for big size text)

Lorem ipsum dolor sit amet, consectetuer adipiscing elit, sed diam nonummy nibh euismod tincidunt ut laoreet

Figure 5: Poppins font

As an example, we are providing a proposed basic design for Tweet Cards that uses the elements and colours described above.



Figure 6: An example of NEPHELE Tweet Card for social media

2.2. Target group definition and stakeholder groups

As stated in the NEPHELE DoA [1], one of the main objectives of WP8 is to plan, coordinate and lead dissemination and communication activities for the promotion of the project work and results to appropriate scientific and stakeholder communities.

This means that the communication activities will be tailored to the different target groups, and communication channels and dissemination materials will have to be designed according to the needs

Document name: D8.1 Dissemination, Communication and Exploitation Plan Page: 17 of 58



of each target group. The following table summarises the different audiences on the target groups potentially interested in NEPHELE that have been identified, the information needs of each group, the main focus of the communication actions, the materials that could serve to that purpose and the consortium partner that will be in charge of the required actions.

Target	Audience	Information needed	Main focus	Materials	Partner
Social	General public End users Public administrations	Understandable for a non- specialist large audience	Economic impact Social benefits	 General project presentation Press releases Newsletters Leaflets/brochures Videos Tweets 	ATOS
Technical	Open-source communities Software developers System administrators	Understandable for ICT system developers and system managers	Focus on techniques and end-user requirements	 Specific project presentations Journal articles and conference papers Technical public deliverables Technical blog posts Video recordings of virtual technical workshops Demonstrators Design guides Tweets and LinkedIn posts 	ZHAW + Technical partners
Scientific	Academia Research community International forums	High level main scientific & technical innovations introduced by NEPHELE	Focus on scientific innovations	 Technological presentations Journal articles and conference papers Technical public deliverables Technical blog posts Video recordings of virtual technical workshops Tweets and LinkedIn posts 	ZHAW + Technical partners
Standardisation	Open-source communities Developers Standardisation bodies	Specifications for standardisation introduced by NEPHELE	Focus on standardisation measures	 Technical public deliverables Virtual Object specifications Design guides Semantic models' specifications related to the Web of Things Description Features and libraries that pertain to the Web of Things Scripting API. 	ERCIM
Calls participants	Relevant IoT stakeholders	NEPHELE Call information	Focus on call requirements and objectives, funding, and administrative procedures	 Funding opportunity flyers/posts/ letters/web inserts Call info sessions -specific presentations Call documents 	FBA, FBC
Business	Entrepreneurs Industry SMEs Start-ups Investors Industrial events organisers	Business opportunities and potential of technology and societal benefits	Focus on scientific, business, and technical innovations	 Business-oriented project presentation Business model descriptions Business opportunities identification documents Societal benefits identification List of results with TRL and IPR models Cost base and recurring revenues 	ININ, IBM

Table 1: Target groups audience and materials



2.3. Channels

As stated in the NEPHELE DoA [1], the main communication channels will be:

- Website
- Social networks presence
- Press releases, media and EC media support. Major activities will be disseminated, when possible, through press releases and direct contacts with the media

2.3.1. Website

The basic NEPHELE website has been available from M2 at https://nephele-project.eu. The website intends to perform as the main communication channel of the project towards the stakeholders. It presents a short introduction about NEPHELE and most relevant information about it such as consortium partners, EC data regarding the project, objectives and use cases. It will be a living site that will continuously update its contents with information about ongoing events, calls, meetings, scientific publications and results.



Figure 7: NEPHELE website - Home

In terms of design, it follows the project visual guidelines (logo, imagery and colours) and has been built according to the best SEO recommendations and accessibility features. The website has been developed by ATOS under T8.2 and will be managed and regularly updated according to the needs of each stage of the general communication plan.

Moreover, a favicon based on the icon has been created. The favicon is the icon or symbol that accompanies the URL and usually appears on browser tabs, on the navigation bar, in the browsing history or in the bookmarks and favourites sections; its function is to help identify the website even before reading the text of the URL.

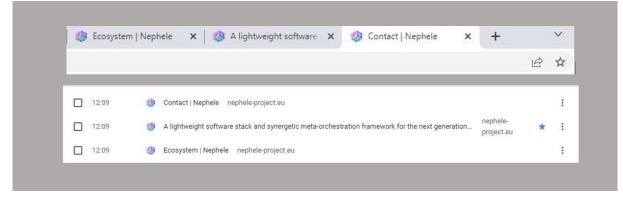


Figure 8: NEPHELE favicon - Navigation bar/ browsing story

Document name: D8.1 Dissemination, Communication and Exploitation Plan Page: 19 of 58



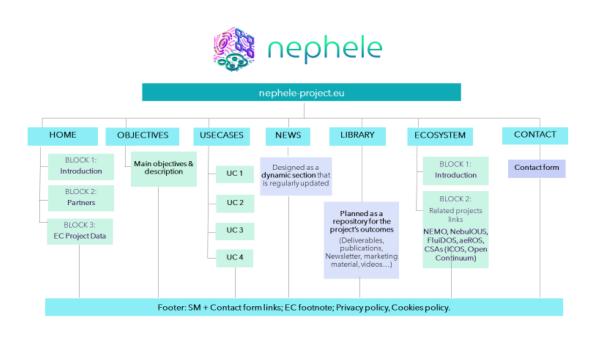


Figure 9: NEPHELE Project website- Sitemap

In this initial stage, the website includes the following sections:

- **Header:** a classic menu presenting a comprehensive view of the sections and the available content. It is displayed the same in all sections of the site.
- **Home:** This section offers a short introduction, the project scope, consortium partners identified with their logos, and EC data regarding the project consisting of a table with information about the grant agreement number, call and topic, and relevant dates.
- **Objectives:** This section gathers the information related to the six main objectives of the project.
- Use cases: A section that describes the benefits and main technical challenges of the four NEPHELE use cases as they are explained in the DoA.
- News: This section has been created to be updated with news throughout the lifetime of the project. It will include information about events, meetings (both internal and external), publications announcements, achievements, open calls... The section will be updated periodically to support the SEO positioning of the website, and each new post will be promoted through the project social media accounts.
- Library: As stated in the DoA [1], this section is designed as a repository to provide a centralised access to the various publicly available deliverables, scientific publications, papers and articles and public materials, such as flyers, posters, videos, newsletters and any other marketing material related to the project.
- Ecosystem: The NEPHELE DoA [1] states that liaisons with other Horizon Europe projects will also be pursued. As a first step, a section devoted to NEPHELE's sibling projects funded under the Horizon Europe programme's Cluster 4, Destination 3: "Future European Platforms for the Edge: Meta-Operating Systems" has been created. Communication actions will also be oriented to create synergies between these projects. This mission will be carried out in more detail within the dissemination task (see Section 3 on this deliverable: Dissemination)
- **Contact:** This section includes a contact form linked to <u>nephele@netmode.ntua.gr</u> that allows visitors to get in touch with the coordinator.
- **Footer:** Featuring icons and links to the project social media accounts & YouTube channel and to the communication form, the footer also shows acknowledgement for the EU support and funding by the grant and displays the European flag (emblem) and funding statement



agreed through the Grant Agreement (Article 17, section 17.2, Visibility – European flag and funding statement). It also includes a link to the contact form and the privacy policy.

• **Privacy policy:** Information on how the project manages the information of visitors and how the data from comments/contact forms are collected.

These sections could be modified or expanded according to the variations of the project needs along its lifetime.

The website will integrate statistics information on the web analytics. The URL will be available for the team in charge of dissemination reporting. As Google Analytics is going to disappear on 1 July 2023, we will export the data available to the date and move on to another free analytics tool - like "Koko Analytics".

2.3.2. Social Media

As stated in the NEPHELE DoA [1], the project intends to ensure its presence in social networks and media (e.g., Twitter, LinkedIn, YouTube). These channels will be used for interacting both with a professional community (researchers, SMEs, large industry), and the public.

Social media –like Twitter or LinkedIn– will help increase the project visibility and to grow the number of members of the NEPHELE community. They can also be used to increase the website visitors and are essential to communicate project news and to keep our audience aware of progress and results.

Messages posted in these social media accounts will consist of events, announcements of new papers and publications, news, milestones, relevant activities, announcements of calls, interactive and engagement material, and any content that can contribute to generating awareness of the project.

The social media strategy has been divided into:

Owned social media

Twitter (@**NepheleProject**): it is used to spread the word about the project activities and news (milestones, events, pilots, calls etc.). It also enables real-time coverage of internal and external events to increase the audience's engagement. Some points on the strategy to boost NEPHELE's presence on Twitter include:

- Interactions with target groups (mention, RT, like, DM, etc.)
- Strategy for the selection of the key persons, companies, projects, communities... to engage with and to be followed by.
- Tagging consortium partners, paper authors and key stakeholders.
- Controlled presence of the appropriate emojis.
- Use of relevant hashtags and keywords within the messages. E.g.: 5G, AI, Automation, Autonomic functions, B5G, Cloud, Cloud-to-Edge, Cloud-to-Edge-to-IoT, Cloud-to-IoT, Communication networks, Community building, Compute continuum, Computer languages, Convergence, Decentralisation, Decentralised, Distributed technologies, Distribution, EC, Edge computing, End-to-end, EU, European research, Framework, Hyper-distributed applications, Infrastructures, Internet of Things, Interoperability, IoT, Meta Operating Systems, Meta-orchestration, Meta-orchestration mechanisms, Networks, Open access, Open call, Open source, Open-source ecosystem, Open-source software, Operating systems, Orchestration, Platform, Semantic interoperability, Sensor networks, Sensor virtualisation, Service mesh, Software engineering, Software stack, Sustainability...
- Promotion of papers published, and events organised by the consortium, presence on events organised by consortium members, synergies with other projects and any new contents in the project website to increase its traffic.



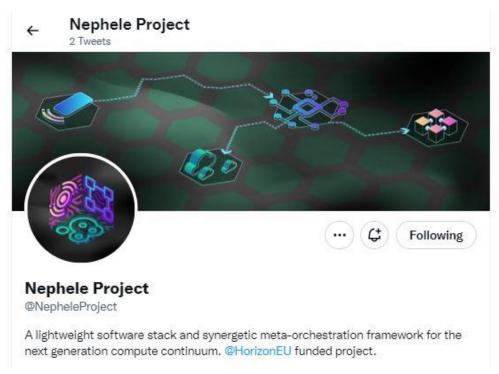


Figure 10: NEPHELE Twitter profile

A **YouTube channel** has also been created so that videos can be uploaded and linked to the website and social media.

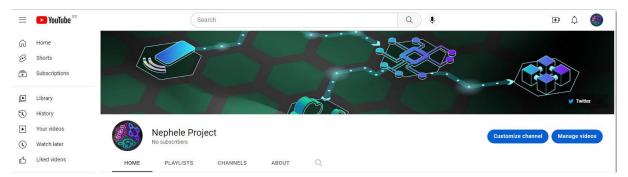


Figure 11: NEPHELE YouTube channel

NEPHELE Consortium will also create a LinkedIn account.

LinkedIn is focused on a professional audience as a social media channel related to business, employment and corporate communication. It would allow sharing longer posts with more in-depth commentary, while still focusing on the project and its milestones, success stories and participation in events.

The page will be set up as a "Company" profile so that consortium members can add it to their personal profiles. It will give more visibility to the project and further within the expert community, enabling engagement with other relevant communities, projects and pages. It will also facilitate the tagging of relevant people and organisations to increase connections and visibility, with the added use of relevant hashtags to get discovered.



NEPHELE Community under the IoT Online Community powered by https://spaces.fundingbox.com/

The NEPHELE Community will be based on the FundingBox community platform, a complete collaboration tool that empowers communities to build knowledge and networks. The community will be hosted on https://spaces.fundingbox.com/, which is a dynamic and interactive web-based platform that includes communication services fostering collaborative work, aiming at facilitating interaction among stakeholders while providing information on best practices, funding opportunities, market trends, among others.

NEPHELE Community will be hosted into a general IoT Community. The integration of different thematic blocks and related projects within the same industry, with a specific section for NEPHELE, guarantees content synergies and greater dissemination of the activities carried out by the project.

The NEPHELE Community and IoT Communities are meant to become the reference point for stakeholders to interact, gain visibility, showcase technologies and services, create synergies with their industry peers and find the latest information and opportunities about the project and other related initiatives within the field.

The ultimate objective of the online community is to spread awareness of NEPHELE methodology to create a broad ecosystem that facilitates market uptake, promotes end-to-end orchestration in Europe, and workforce upskilling. This will help to enhance the adoption of the NEPHELE approach across the European Cloud-to-Edge-to-IoT industry as well as among general public. The community will continue to thrive in the future and their members will be encouraged to join other related European projects.

Shared social media

This stands for the social media accounts and websites owned by NEPHELE partners that will also contribute to disseminating and sharing the project's messages. The first step will be to create a chart of professional accounts of the partners' companies and of the project participants, with their consent.

2.3.3. Communication material

The NEPHELE DoA [1] states that for promotion purposes the project will design and deliver communication materials "tailored to the selected target groups" and proposes "general presentation material (such as brochures, flyers, fact sheets, roll-ups, video, and printed material); PowerPoint presentations; newsletters; more specific presentations such as technology descriptions, proceedings of workshops; demonstrators, such as videos, and downloadable software demonstrators". The team involved in this task will continue designing these materials based on the already designed and delivered imagery and templates (explained below).

2.3.4. Materials

Dissemination and marketing material will be part of the strategy to position NEPHELE and spread the project's messages wherever the project is present: conferences, workshops, webinars exhibitions and others.

All the materials will show acknowledgement for the EU support and funding by the grant and display the European flag (emblem) and funding statement agreed through the Grant Agreement (Article 17, section 17.2, Visibility – European flag and funding statement) [2].

So far (M3), the development of material has been focused on template production to be used by the consortium.



Deliverable template

	() neshek	() nephek	
		No serve and a serve scalar and a final final serve and a server scalar server se	Libra of Co.
1 Introduction 1. Transaction for some Production of the some 1. Some of the some 1. Some of the some 1. Some of the some of the 1. Some of the some of the some of the 1. Some of the some of the some of the 1. Some of the some of the some of the 1. Some of the some of the some of the 1. Some of the some of the some of the 1. Some of the some of the some of the some of the 1. Some of the some of the 1. Some of the some of the some of the some of the some of the 1. Some of the	2 Conclusion Antonio Martine	Тем" Бурк че мака ма техна ма техна ма техна ма техна ма на техна ма на тех	() reghek
	land and a second second	an an Intelligences	an late

Figure 12: NEPHELE Deliverable Template

Presentation template



Figure 13: NEPHELE Presentation Template

Brochure/flyer, rollup, video(s)

After the development of templates, the plan for the first year foresees the development of a brochure and/or a flyer, a roll-up, and at least one video. This material will be described, included and reported on D8.2. For the project lifespan, materials will be also produced as per need.

Newsletters



A newsletter will be produced and launched bi-annually to generate awareness about the NEPHELE project and to keep audiences periodically informed about the progress done on the project. A PDF format version will be available also on the website.

The team is currently working on a content calendar aligned with the milestones and with the progress of the technical WPs, as a first step to develop a communication strategy accurate enough to be capable of establishing a more precise potential subscriber reach than can be anticipated at this stage of the project. A special section with information about the NEPHELE Open Calls will also be included.

Other materials

More specific strategy, channels and materials as technology descriptions, proceedings of workshops, demonstrators, technical workshop videos, downloadable code, papers, whitepapers, technical presentations and/or public technical deliverables and their format and strategy are drafted in Section 3, "Dissemination strategy".

A quick reference note on how to report dissemination activities within the WP8 activities, sending contributions to social networks, uploading papers to Zenodo (a one-stop guide that everyone can consult when being involved in NEPHELE dissemination and communication activities) will be prepared and distributed to all partners.

2.3.5. Media and press releases

Press releases and clipping

Press releases are a means of communicating and distributing information about NEPHELE achievements, progress and results to mass media for communication purposes, to raise awareness about the project among the target audience.

Press releases will be produced on strategic moments of the project, such as the beginning, mid-life and end of the project, open calls, as well as whenever important milestones or relevant activities or events take place.

For this purpose, all the partners will collaborate to distribute NEPHELE's press releases within their professional networks – inside and outside their organisations.

The tone for press releases must be formal but fresh and understandable, and will describe the scope, aim, and benefits of NEPHELE in a way that allows any reader to understand them.

A table will gather the clippings achieved after the launch of each press release, including publications on partners websites.



3 Dissemination strategy

The dissemination strategy is in the hands of T8.1 (ZHAW).

3.1 Scope of the dissemination activities

The scope of this section is to describe the project's dissemination plan, the methods, tools, and channels to be utilised and the actions that will be made by the NEPHELE consortium during the project lifecycle. The goal is to implement a strategy to ensure the diffusion of the knowledge generated within the project, to promote the project outcomes and to address the identified stakeholders and potential users from the research, academia, and industrial communities. This will include the dissemination through the submission of papers in topic-specific journals, technical magazines, and transactions, as well as the organisation of scientific and technical workshops targeting mainly the scientific research communities, and workshops for supporting the two open calls. The dissemination action plan will also identify how the project results can be promoted towards open source and open standard communities, that are the most relevant communities to monitor and impact. This deliverable acts as a reference point for the NEPHELE partners in establishing a common understanding regarding planned activities, dissemination opportunities and the success criteria (KPIs) of the performed activities. Nonetheless, the dissemination plan will be regularly reviewed and updated based on the project's evolution and new knowledge acquired. If needed, corrective actions will be taken, in close collaboration with the WP leader and the consortium. To enable and expand the outreach of the NEPHELE's results and further guarantee a wide spread of the dissemination activities which will help maximise the impact and benefits derivable from the project, the consortium partners have agreed to carry out dissemination activities throughout the entire lifespan of the project. All procedures for the dissemination activities are in line with the Consortium Agreement and the Horizon Europe communication and dissemination guidance for research and innovation projects.

3.1.1 General objectives

The overall objective is to ensure that the knowledge generated within the NEPHELE project, and the project outcomes are systematically disseminated to the targeted open-source and open-standard communities, the relevant stakeholders and potential users from the research, academia, and industrial communities to increase the reach and impact of NEPHELE. Key messages as identified in section 2.1.3 will be addressed to the target groups as defined in Section 2.2. High-level objectives for the dissemination strategy can be summarised as follows:

- 1. Disseminate the project's results and outcomes to the relevant stakeholder and expert communities to raise *awareness* and encourage their *uptake*.
- 2. Ensure the *involvement* of the relevant research organisations as well as business stakeholders and public authorities' representatives.
- 3. Support the impactful *completion* of the whole project and strengthen *collaboration* amongst partners for research and industry innovation initiatives.
- 4. *Coordinate* with other relevant actors, related projects, and standardisation bodies, facilitating the exchange of knowledge and experience between industry and research community.
- 5. Ensure that all dissemination produced is *engaging and interesting* to the target audience.

3.2 Cooperation with dissemination activities of other projects in the call

NEPHELE will cooperate with other funded projects in the HORIZON-CL4-2021-DATA-01-05 call, namely NEMO, Nebulous, ICOS, FluiDOS and aeROS as they are addressing the same topic. The objective of the cooperation is to exploit results and synergies, maximise impacts of the Cloud-Edge-IoT project portfolio and coordinate dissemination activities. A short description of the sibling projects funded under the same Horizon Europe programme are reported in Table 2.



Table 2: NEPHELE's sibling projects	
-------------------------------------	--

Title	Short Description
NEMO	NEMO (see website <u>http://nemo-iot.eu</u>) establishes itself as the gamechanger of the AIoT-edge-cloud continuum by introducing an open source, modular and cybersecure meta-operating system, leveraging on existing technologies and introducing novel concepts, methods, tools, testing and engagement campaigns. This project will bring intelligence closer to the data and make AI-as-a-Service an integral part of network self-organisation and micro-services execution orchestration. Its widespread penetration and massive acceptance will be achieved via new technology, pre-commercial exploitation components and liaison with open-source communities.
NebulOus	NebulOus will contribute to research in cloud and fog computing brokerage, by introducing advanced methods to enable secure and optimal application provisioning, resource adaptation and reconfiguration. It will contribute to the cloud computing continuum through the development of a meta-operating system and platform to exploit edge and fog nodes, in conjunction with multi-cloud resources, to cope with requirements posed by low latency applications.
ICOS	ICOS (see website https://www.icos-project.eu/) will cover challenges of the IoT- edge-cloud paradigm, proposing an approach to embed a set of functionalities, defining an IoT-Cloud Operating System (ICOS). Its aim is to design, develop and validate a meta-operating system by addressing the challenges of device volatility and heterogeneity, continuum infrastructure virtualisation and diverse network connectivity, optimised and scalable service execution and performance, as well as resources consumptions. It will also cover security, privacy, and trust, and reduce integration costs and effective mitigation of cloud provider lock-in effects, in a data-driven system built on openness, adaptability, data sharing and a future edge market scenario for services and data.
FluiDos	FluiDOS (see website <u>https://www.fluidos.eu</u>) will deliver a fluid, dynamic, scalable, and trustworthy computing continuum, spanning across devices and unifying edge and cloud in an energy-efficient manner. This project will build on consolidated operating systems and orchestration solutions, resource sharing in the computing continuum, AI-based optimisation for cost and energy, and a zero-trust paradigm to enable an open, collaborative ecosystem that will support European digital autonomy. Stakeholders will be involved through pilots and demonstrators in the fields of agriculture, energy, and logistics, challenging the project's ability to adapt to different environments and operating conditions, showcasing its true innovation potential.
aerOS	aerOS (see website <u>https://aeros-project.eu</u>) will deliver common virtualized services to enable orchestration, virtual communication (network-related programmable functions), and efficient support for frugal, explainable AI and creation of distributed data-driven applications. aerOS will be based on continuum infrastructure elements like smart devices, tiny/far/near edge computing nodes, and public/private clouds (including virtual services and NetApps), providing scalable and secure access to applications and services while keeping its data autonomy. The final solution will be generic and directly applicable to any vertical, cross-vertical business process, and several different physical or virtual platforms.



In addition, the project will contribute to the consolidation and coherence work that will be implemented by the two Coordination and Support Actions (CSAs) OpenContinuum and UNLOCK-CEI supporting the horizontal activities from the topic call text HORIZON-CL4-2021-DATA-01-07 (see a short description in Table 3). The project partners will be prepared to exchange information, achievements and lessons learned with these other projects. The horizontal activities will require the participation in meetings and workshops, and the contribution to relevant activities (such as activity groups) of common interest.

Table 3: Coordination and Support Actions of inter	est
--	-----

Title	Description
OpenContinuum	OpenContinuum (see website <u>http://www.eucloudedgeiot.eu</u>) supports the cloud- edge-IoT domain by focusing on the supply side of the computing continuum landscape. Its goal is to foster European strategic autonomy and interoperability through an open ecosystem for the computing continuum, with open source and open standards as two key enablers to be supported and leveraged throughout the community. Such an ecosystem will contain R&I projects in the cloud-edge-IoT portfolio to be coordinated, the diverse community evolved from the current cloud and IoT ones, with the addition of actors, initiatives, and significant alliances. The supply-side nature of OpenContinuum's agenda will orient the themes and focus of project activities but will not limit the scope of community building. The project's active landscaping and engagement work will bring the cloud and IoT communities together and express all points of view with a common understanding. It will then provide guidance to European actors to contribute to and lead open-source projects and standardisation efforts.
Unlock-CEI	Unlock-CEI's ambition (see website <u>http://www.eucloudedgeiot.eu</u>) is to unlock the potential for accelerating the deployment of the cloud-edge-IoT (CEI) computing continuum in Europe by focusing on demand-side drivers and challenges to identify technology driven innovation and business opportunities driving demand value chains. The project represents the cloud-edge-IoT demand constituency, provides insights and guidance to Horizon Europe R&I projects, and contributes to a proactive dialogue with suppliers to encourage the development of an open European cloud-edge-IoT ecosystem. It focuses on emerging value chains where investment is needed to foster the deployment of the cloud-edge-IoT continuum through forthcoming large-scale pilots, which will ultimately foster European autonomy in the digital economy.

3.3 The strategy

To maximise the impact of all dissemination activities, a clear strategy must be defined, and its specific objectives should be identified. The dissemination strategy is composed of interrelated activities that will assure that all communication is relevant to the core objectives of the dissemination strategy and that key messages are consistently delivered. This is achieved by answering some very simple questions as detailed next, that will ensure that the project maximises the impact achieved across targeted audiences.

- Why to disseminate information about NEPHELE?
- What information is going to be disseminated?
- Who is going to disseminate?
- **To whom** is it going to be disseminated?
- Where is the best "place" to reach the targeted audience?
- When should the message be delivered to increase efficiency?
- **How** to deliver the most effective message?



3.3.1 Why to disseminate information about NEPHELE?

The answers to this question are very important since they will drive all the following activities with a clear purpose in mind. To ensure that the NEPHELE results are disseminated according to the expectations of all members of the consortium, all dissemination activities should have the following final objectives:

- To ensure that target audiences are convinced that the NEPHELE project is a powerful keyenabler for achieving scientific excellence, contributing to competitiveness, and solving important technological and societal challenges.
- To demonstrate how the outcomes of the NEPHELE project will be relevant to the everyday lives in a broad set of scenarios and use cases.
- To receive feedback from the users and interested target groups.
- To contribute to the advancement of the state of the art and make scientific results a common good.
- To assure, where possible, that the results of the NEPHELE project influence policy makers and decision makers in industry and the scientific community to ensure the long-term impact of the project through follow-up initiatives and exploitation actions.

3.3.2 What information is going to be disseminated?

The main information to be disseminated are the project achievements and the results. Anything that has been achieved and how it was achieved is the object of the dissemination activities. Moreover, anything related to the project that is useful for third parties to become aware of and either endorse or avoid is part of the information to be disseminated.

3.3.3 Who is going to disseminate?

The project partner that has undertaken the lead of the activity will be driving the dissemination activity together with the contributing partners.

3.3.4 To whom is it disseminated?

The aim of the dissemination strategy is to reach a large and heterogeneous audience. Therefore, several communities will be targeted as identified among the target groups in Section 2.2 and the message will be adapted to the specific audience. A set of target audiences are further described in more details in Section 3.4.

3.3.5 Where is the best "place" to reach the targeted audience?

The dissemination message needs to reach the target audience using the most adequate channels. This means that it is imperative to properly identify the preferred means for each targeted audience (online presence, scientific journals, physical events, etc.). A dissemination action plan will be finalised within the first six months of the project, to identify, among others, how the project results can be promoted towards open source and open standard communities, that are the most relevant communities to monitor and impact. Nonetheless, an initial indicative list of conference venues, journal publications and industrial events relevant to the NEPHELE project have been identified in Section 3.5.

3.3.6 When should the message be delivered to increase efficiency?

The scheduled time for the dissemination activities will follow the project's lifecycle and will differ in intensity based on the evolution of the project. A calendar of important events and attendance will be created (see an initial list in Section 3.5) and kept up-to-date collaboratively within the consortium. The dissemination activities will be carried out in four main phases, spanning throughout the project duration and extending beyond it, with increasing level of intensity, starting from the creation of general awareness and concluding with attracting potential supporters and customers/users of the project results. The four main phases include: i) A mild phase that runs in parallel with the conceptualisation and design



of the proposed framework, which spans throughout the first 12 months of the project; ii) an intense phase with a scientific and academic focus, that runs in parallel with the technical implementation of the NEPHELE framework. This second, intense phase spans from M13 until M32 of the project; iii) an equally intense phase with an industrial and business focus, that runs in parallel with the demonstration and performance evaluation and validation of the deployed methodologies, tools and mechanisms of the integrated NEPHELE framework; iv) an intense phase with an industrial and business flavour that runs for approximately a year after the end of the project, in parallel with the additional exploitation activities of the consortium partners in order to reach the project medium-term objectives.

3.3.7 How to deliver the most effective message?

The dissemination activities can be split into interactive and non-interactive:

- The **non-interactive activities** include dissemination of the information through the submission of papers in topic-specific journals, technical and scientific magazines, and transactions.
- The **interactive activities** include human interaction and aim to establish more trusted relationships between the consortium members and potential stakeholders and strengthen the target audience involvement. Such activities include submission of papers and posters in topic-specific conferences and workshops, accompanied by (physical) presentation, the participation in industrial events and workshops for supporting the two open calls.

3.4 Dissemination methods, tools, and channels

Dissemination **methods** that will be employed are:

- **Publications** (conference proceedings, journals).
- Face-to-face activities such as workshops, meetings, invited talks and demonstrations.
- **Online activities** which include the project's website, e-newsletters, invitations via email direct distribution.
- Press-based activities i.e., press releases, TV or radio interviews, articles on press.
- **Direct distribution of paper-based promotional materials** (brochures, flyers) in events, meetings, workshops, and fairs.
- Establishing collaborations (liaisons) with similar projects, initiatives, and organisations.

A wide range of **tools** will be utilised for effectively disseminating the project, its developments and results:

- E-Newsletter issues will be published throughout the project's lifecycle.
- Roll up banners will be created for point of reference usage in major events and conferences and reinforce the on-spot activities of project partners.
- Flyers and brochures in printable format for distribution in all kinds of events and face-to-face meetings with stakeholders. It should be noted that the digital format of those promotional materials will also be available online at NEPHELE website for any one interested in.
- Demos and/or videos related to project's developments.
- Press releases for announcing to the target audience as well as to the general public the most important achievements of the consortium.

A variety of **channels** will be used to effectively reach out the identified key audiences, taking into consideration the specific characteristics and needs of each group. The following list is not exhaustive as new needs or opportunities may arise during the project implementation:

- Presentations at external conferences, fairs, exhibitions, workshops, and other external events.
- Project events (demonstrations events, including the final event, and technical workshops).
- Webinars.
- NEPHELE website.
- Social media accounts (e.g., Twitter and LinkedIn).
- Journals and other scientific publications.
- Liaison activities with related projects and organisations.



Presentations at external events, in webinars or at events organised by the project ensure visibility and raise awareness and understanding of the project activities and outcomes to the relevant stakeholder's communities. Together with the scientific publications, they foster exploitation and uptake of the project results. Consultation workshops and liaison activities involve and strengthen collaboration with relevant research organisations, business stakeholders and public authority representatives inside and outside Europe. They also facilitate the exchange of knowledge and experience between industry and research stakeholders. A fundamental dissemination channel will be the dynamic and interactive website https://nephele-project.eu/ which will be a powerful channel for boosting information flow between all entities involved: the European Commission, industrial companies, universities, technological centres, standardisation bodies, etc. It will also be used to disseminate targeted information to interested parties. The following table gives an overview of the planned dissemination activities divided for either academic or industry partners in the consortium.

Table 4: Planned dissemination activities

Activity type	Dissemination activities
Academic	- Publish project results in related top-level international journals.
research	- Publish project results in top peer-reviewed conferences.
	- Organise specific project workshops co-located with important events and conferences.
	- Contribute to relevant standardisation bodies, industry forums.
Industry	- Demonstrate results in industrial, commission organised and expert events.
	- Organise industrial workshops, keynote speeches and panels on topics including but not limited to Intelligent IoT Devices Modelling and Management, Intelligent IoT Devices Development, Cloud-native IoT Applications Composition and AI-assisted Orchestration.
	- Present results to third parties and stakeholders to promote the results, stimulate their adoption and establish collaborations.
	- Promotion of project material (e.g., project brochures, posters) at relevant industrial and expert events, publication of results in partners' innovation portals/web sites, etc.
	- Production of an end of project volume with findings for specific stakeholders in vertical domains related to the use cases addressed in the project.
	- Involvement of open-source communities.

3.4.1 Dissemination activities to specific target audiences

In the following tables a classification of the target audiences that are in focus for the dissemination activities during NEPHELE is presented.

Table 5: Dissemination activities to the industry and stakeholders

Action	Dissemination to the industry and stakeholders
Target audience	Cloud Service Providers, IoT solutions Providers, Telecom Operators, Software Vendors and Software Houses, SMEs, stakeholders of smart applications in the IoT, Edge and Cloud domains, product owners, developers, business managers, engineers, entrepreneurs, stakeholders of smart cities/buildings, Industry verticals (ICT vendors and operators, logistics), Public services stakeholders (smart cities, Public Protection & Disaster Relief, utilities).
Communication channels	Scientific articles, NEPHELE website, social media, industrial events, and fairs (e.g., Thessaloniki International Fair), Open-Source events (e.g., EclipseCon,



Action	Dissemination to the industry and stakeholders
	OSXP), Eclipse Newsletter (>250.000 subscribers), direct contacts, participation in conferences, workshops and exhibitions, open calls.
Objective	Disseminate the project goals/main objectives, the results and the business benefits, demonstrate NEPHELE's architecture, platform, and innovations, incorporate novel outcomes of NEPHELE into future releases of existing tools/products or brand-new solutions that will broaden the customer base of the companies, make open source forums and target international markets aware of NEPHELE's results and main exploitable achievements, demonstrate the advantages in industry -related companies by adopting NEPHELE technical outcomes, increase awareness and "appetite" for key industry stakeholders to enable uptake of NEPHELE's results, create synergies between NEPHELE and relevant Open Source Communities (e.g., Eclipse IoT/Edge) focusing on Open Source Software, disseminate the business-value of Open Source and Open Collaboration, share business cases, application fields and best practices from NEPHELE, user experience gathering and collection of feedback for enhancements and improvement of the TRL levels of the provided solutions, proposing/searching for new partnerships.
Expected impact	Increased exploitation opportunities through awareness of project goals and results, raise the awareness of potential users at the early stages of the project to get feedback that will help NEPHELE to broaden the categories of uses it can accommodate, share early experiences and knowledge with interested stakeholders, raise awareness among open source communities to get familiarised with the NEPHELE project, foster up-take of NEPHELE Open Source results, foster open collaboration between companies through Open Source, recognition of the knowhow and expertise, gain interest from market clients, improve the bid capture rate on new tenders by proposing innovative added-value solutions, increase exploitation opportunities by enlisting new customers, "buy-in" from clients to proceed with future engagements aiming at applying the NEPHELE's outcomes, engagement of stakeholders into the NEPHELE approach (e.g., development of VO functionalities and supportive functions), initiation of direct communication channels with industrial stakeholders and of collaboration opportunities for the development of customised solutions for their business fostering new partnerships.

Action	Dissemination to the Scientific & Technology community
Target audience	Technical experts from industry and research, researchers, developers, and practitioners on edge/cloud computing orchestration, IoT, AI/ML and NFV, ICT programme community, national & international partners and the scientific community, national academia partners, industrial partners within the context of already active framework agreements, IT and ICT software developers.
Communication channels	Open access scientific publications in high-quality international journals and magazines, presentations and invited talks at conferences/workshops/trade & fairs, industrial workshops, conference panels, demos and tutorials, dedicated mailing list, corporate blogs, networking events by EU projects and other R&D initiatives, active education of young researchers with dedicated presentations at universities, leaflets, presentations, organisation of technological workshops/symposia and journal special issues, NEPHELE's website and social media, standardisation bodies (e.g., W3C WoT, ETSI OSM), open-source communities and the open-continuum CSA for interaction with other projects.

Table 6: Dissemination activities to the Scientific & Technology community



Action	Dissemination to the Scientific & Technology community
Objective	Disseminate the project results to the research and scientific community, establish synergies, release joint specifications/white papers, ensure and maximise the impact in the scientific community and attract the interest of S/T experts in NEPHELE to generate additional research and development activity supporting the exploitation of the outcomes, attract technology experts and ICT scientists in the fields of cloud-to-edge-to-IoT continuum, raise the awareness of the project's objectives and outcomes, gaining feedback on certain challenges from the community, communicating the know-how and products developed during NEPHELE to present a real reference of a complex implementation useful for research, and also for business purposes, maximise the impact of NEPHELE's output on the large research internal community and raise awareness of our technological partners, establish synergies between NEPHELE and the European Edge-Cloud RTD Ecosystem focusing on Open Source Software, evangelise the value of Open Source for research and academia in general and for European research specifically.
Expected impact	Dissemination of project outcomes to the scientific community, promote adoption and extension of the solutions, larger technical support for NEPHELE technology, strengthened technology base, additional knowledge and proof for the viability of technical approach, increased credibility and confidence of future users (businesses), acquire critical feedback and where possible contributions in open- source software from technology experts and scientists, which will render the NEPHELE outcomes more solid and relevant, thus more appealing to potential customers, engage and increase interest of the S/T Communities to enlarge the set of NEPHELE's users, a common strategy for the European Edge-Cloud RTD Ecosystem in terms of open source (instead of cluttered project re sults), educate the next generation of researchers and developers on the benefits of Open Source.

Table 7: Dissemination activities to direct contacts with businesses identified as potential users of Project results

Action	Dissemination to Direct contacts with businesses identified as potential users of Project results
Target audience	Telecom operators, software vendors and SMEs working in the telco domain, service providers and vertical industries, industrial partners, internal relevant company departments and units, affiliated companies, collaborators in businesses (cloud computing technology vendors, IoT vendors, cloud/telecom services providers), smart cities, port authorities, health stakeholders, emergency services/rescuers/first responders, energy stakeholders, C-suite or senior management level executives of leading companies across all industry sectors spanning from communication & media, retail, industrial manufacturing to energy & utilities leveraging on consortium's broad & diverse clientele, competitiveness clusters such as Cap Digital, i-Trans, Minalogic, NextMove or Images et Réseaux, companies/participants from relevant W3C Working Groups and Community Groups, such as the WoT Working Group and the WoT Community Group, companies from the Eclipse IoT/Edge Working Groups.
Communication channels	NEPHELE's website, brochures, leaflets, participation in workshops, publication of newsletters, press releases and announcements, industry events, blog posts, social media and techtalks in conferences, participation in business exhibits, point- to-point meetings, business meetings/workshops, forums with a scientific focus, national and international meetup communities, attending and speaking at events



Action	Dissemination to Direct contacts with businesses identified as potential use of Project results			
	that have an advanced cloud, IoT and Edge dimension (e.g., Robotics and ROS meetup in Zurich, CNCF meetups, serverless days etc.), direct contacts and corporate presentations to potential customers/relevant audiences, internal company communication means, Working Group meetings, EclipseCon, Eclipse newsletter, Eclipse community.			
Objective	Disseminate the project goals/main objectives, the results and the business benefit incorporate novel outcomes of NEPHELE into future releases of existin tools/products or brand-new solutions that will broaden the customer base of t companies, make open source forums and target international markets aware NEPHELE's results and main exploitable achievements, demonstrate t advantages in industry-related companies by adopting NEPHELE technic outcomes, increase awareness & "appetite" for key industry stakeholders to enal uptake of NEPHELE results, build commercial offers on top of research resul disseminate key benefits for each stakeholder from project's solutions, promo solutions and get feedback regarding their exploitation potential, disseminate NEPHELE Open Source results and leverage synergies between NEPHELE ar existing Eclipse Open Source projects.			
Expected impact	Increased exploitation opportunities through awareness of project goals and results, raise the awareness of potential users at the early stages of the project to get feedback that will help NEPHELE to broaden the categories of uses it can accommodate, share early experiences with interested stakeholders, raise awareness among open source communities to get familiarised with the NEPHELE project, recognition of the know-how and expertise, gain interest from market clients, improve the bid capture rate on new tenders by proposing innovative added-value solutions, increase exploitation opportunities by enlisting new customers, "buy-in" from clients to proceed with future engagements aiming at applying, results improvement, real use case contexts, knowledge sharing, engagement of stakeholders into the NEPHELE concept and solutions, identify and take advantage of exploitation opportunities and clear business use cases, get comments and involvement, fostering open collaboration.			

Table 8: Dissemination activities to the press and public

Action	Dissemination to the press and public		
Target audience	ce Press and general public		
Communication channels	Press releases, NEPHELE's website (https://nephele-project.eu/), social media like Twitter (https://twitter.com/NEPHELEProject), YouTube channel, LinkedIn. Internal news channels (e.g., @ercim_news), CORDIS News Success stories to share via the EC's dedicated Web site (https://ec.europa.eu/research-and-innovation/en/projects/success-stories)		
Objective	ctive Explain the project, its objectives and demonstrate the use cases, results an achievements beneficial to the society.		
Expected impact	Awareness of new technologies benefits and their positive impact to the society, get press articles, get subscribers to all social media channels.		



Action	Dissemination activities for technology transfer		
Target audience	Collaborating research labs, businesses and national SMEs.		
Communication channels	Video-conferencing tools, forums with a scientific focus, national and international meetup communities, attending and speaking at events that have an advanced cloud, edge and IoT dimension (e.g., Robotics and ROS in Zurich, CNCF meetups, serverless days etc.), direct contacts with local companies.		
Objective	Knowledge transfer among research teams, identification of synergies, promotion of novel research axes, promotion of the technical achievements of the project within the identified communities.		
Expected impact	Establish synergies and promote joint research activities, attract the interest on the advanced topics developed in NEPHELE, create a direct collaboration or technology transfer projects for consultancy and technology transfer on the themes of the project.		

Table 10: Dissemination activities for training to university students

Action	Dissemination activities for training to university students		
Target audience	Undergraduate and postgraduate students, Ph.D. students.		
Communication channels			
Objective	Disseminate the novel technologies and solutions generated by NEPHELE among the next generation researchers.		
Expected impact	Gain the interest of future researchers on the NEPHELE project vision and results, consolidating and strengthening European position and competitiveness in the field.		

3.5 Scientific Papers, Technical Demos/Presentations and Journal Publications

The consortium has identified a list of scientific conferences, events, and journals as the ones which may be relevant for NEPHELE where participation in the form of paper submissions, presentations, and/or demonstrations will be considered. Academic and Industry conferences are outlined in Table 11 and Table 12, whereas in Table 13 an indicative list of journals and technical magazines is reported. The consortium will focus its efforts on the effective dissemination of NEPHELE results in these venues. However, these depict indicative lists, not all entries in the list will be part of the publication activities. Moreover, any other opportunity identified by the consortium during the project will be seized even though it is not included in the reported lists in this document.

No.	Event Name	Date	Place	URL
1	IEEE International Conference on Communications (ICC)	28 May - 01 June 2023	Rome, Italy	https://icc2023.ieee- icc.org/
2	IEEE Global Communications Conference (GLOBECOM)	4-8 December 2023	Kuala Lumpur Malaysia	https://www.comsoc.or g/conferences- events/ieee-global- communications- conference-2023

Table 11: Identified Academic Conferences



No.	Event Name	Date	Place	URL
3	European Conference on Networks and Communications (EUCNC) / 6G Summit	6-9 June 2023	Gothenburg, Sweden	https://www.eucnc.eu/
4	IEEE Conference on Cloud Computing Technology and Science (CloudCom)	TBD in 2023	TBD	https://www.2022.cloud com.org/
5	IEEE/ACM International Conference on Utility and Cloud Computing (UCC)	TBD in 2023	Messina, Italy	https://ucc- conference.org/
6	IEEE/ACM International Symposium on Cluster, Cloud and Internet Computing (CCGrid)	1-4 May 2023	Bangalore, India	http://cds.iisc.ac.in/facu lty/simmhan/ccgrid202 <u>3//</u>
7	IEEE International Conference on Computer Communications (INFOCOM)	17-20 May 2023	New York area, USA	https://infocom2023.iee e-infocom.org/
8	IEEE Conference on Network Function Virtualisation and Software Defined Networks (NFV-SDN)	TBD in 2023	TBD	https://nfvsdn2022.ieee- nfvsdn.org/
9	IEEE World Forum on Internet of Things (WF-IoT)	TBD in 2023	TBD	https://wfiot2022.iot.iee e.org/
10	IEEE Wireless Communications and Networking Conference (WCNC)	26-29 March 2023	Glasgow, Scotland, United Kingdom	https://wcnc2023.ieee- wcnc.org/
11	IEEE International conference on Cloud Computing (CLOUD)	2-8 July, 2023	Chicago, Illinois, USA	https://conferences.com puter.org/cloud/2023/
12	IEEE International Conference on Cloud Engineering (IC2E)	TBD in 2023	TBD	https://conferences.com puter.org/IC2E/2022/
13	IEEE International Conference on Cloud Networking (CloudNet)	TBD in 2023	TBD	https://cloudnet2022.iee e-cloudnet.org/
14	IFIP Networking 2023	12-15 June 2023	Barcelona, Spain	https://networking.ifip.o rg/2023/
15	IEEE International Conference on Network Softwarisation (NetSoft)	TBD in 2023	TBD	https://netsoft2022.ieee- netsoft.org/
16	IEEE/IFIP Network Operations and Management Symposium (NOMS)	8-12 May 2023	Miami, FL, USA	https://noms2023.ieee- noms.org/
17	IEEE Conference on Vehicular Technology (VTC)	18-21 June 2023	Florence, Italy	https://events.vtsociety. org/vtc2023-spring/
18	IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)	1-5 October 2023	Detroit, USA	https://ieee-iros.org/



No.	Event Name	Date	Place	URL
19	International Conference on Reviews in Internet of Things Technologies and Cloud and Fog (ICRITTCFC)	15-16 July, 2023	Stockholm, Sweden	https://waset.org/review s-in-internet-of-things- technologies-and-cloud- and-fog-computing- conference-in-july- 2023-in-stockholm
20	International Conference on Reviews in Internet of Things Technologies and Machine Learning (ICRITTML)	15-16 July, 2023	Stockholm, Sweden	https://waset.org/review s-in-internet-of-things- technologies-and- machine-learning- conference-in-july- 2023-in-stockholm
21	International Conference on Reviews in Internet of Things Technologies and Networking (ICRITTN)	6-7 July, 2023	Stockholm, Sweden	https://waset.org/review s-in-internet-of-things- technologies-and- networking-conference- in-july-2023-in- stockholm
22	International Conference on Internet of Things and Multi- Access Edge Computing (ICIOTMAEC)	20-21 December, 2023	İstanbul, Türkiye	https://waset.org/interne t-of-things-and-multi- access-edge-computing- conference-in- december-2023-in- istanbul
23	International Conference on Fog Computing and the Internet of Things (ICFCIOT)	4-5 November, 2023	Amsterdam, Netherlands	https://waset.org/fog- computing-and-the- internet-of-things- conference-in- november-2023-in- amsterdam
24	8th ACM/IEEE Conference on Internet of Things Design and Implementation (IoTDI)	9-12 May, 2023	San Antonio, Texas, USA	https://conferences.com puter.org/iotDI/2023/in dex.html
25	ACM Symposium on Cloud Computing (SoCC)	TBD in 2023	TBD	https://acmsocc.org/202 2/
26	ACM/IEEE Symposium on Edge Computing (SEC)	TBD in 2023	TBD	http://acm-ieee- sec.org/2022/
27	IEEE International Conference on Edge Computing & Communications (EDGE)	2-8 July, 2023	Chicago, Illinois, USA	https://conferences.com puter.org/edge/2023/
28	EclipseCon	TBD in 2023	TBD	https://www.eclipsecon. org/2022
29	International Conference on Network and Service Management (CNSM)	TBD in 2023	TBD	http://www.cnsm- conf.org/2022/
30	HiPEAC	16-18 January, 2023	Toulouse, France	https://www.hipeac.net/ 2023/toulouse/#/



No.	Event Name	Date	Place	URL
31	IEEE International Conference on Robotics and Automation (ICRA)	29 May 2 - June 2023	London, UK	https://www.icra2023.o rg/
32	International Conference on Software Engineering (ICSE)	14-20 May, 2023	Melbourne, Australia	https://conf.researchr.or g/home/icse-2023
34	IEEE World Congress on Services	2-8 July, 2023	Chicago, Illinois, USA	https://conferences.com puter.org/services/2023/
35	Open-Source Experience	TBD in 2023	TBD	https://www.opensource -experience.com/
36	International Electrotechnical and Computer Science Conference (ERK)	TBD in 2023	TBD	https://erk.fe.uni- lj.si/erk22.html
37	Workshop on Telecommunications VITEL	TBD in 2023	TBD	https://www.ezs- zveza.si/en/2021/10/37t h-workshop-on- telecommunications- vitel-2022/

Table 12: Identified Industrial Conferences

No.	Event Name	Date	Place	URL
1	IoT Week	June 2023	Berlin, Germany	https://iotweek.org/
2	IoT Solutions World Congress (ISWC)	31 January - 2 February 2023	Barcelona, Spain	https://www.iotswor ldcongress.com/
3	Mobile World Congress (MWC)	27 February - 2 March 2023	Barcelona, Spain	https://www.mwcbar celona.com/
4	IoT Tech Expo	26-27 September 2023	Amsterdam, Netherlands	https://www.iotteche xpo.com/europe/
5	Thessaloniki International Fair (TIF)	TBD	Thessaloniki, Greece	https://www.showsb ee.com/fairs/86802- Thessaloniki- International-Fair- 2023.html

Table 13: Identified Journal Publications

No.	Journals	URL
1	IEEE Transactions on Software Engineering	https://www.computer.org/csdl/journal/ts
2	Elsevier Future Generation Computer Systems	https://www.sciencedirect.com/journal/fut ure-generation-computer-systems
3	IEEE Systems Journal	https://ieeesystemsjournal.org/
4	IEEE Internet of Things Journal	https://ieee-iotj.org/
5	IEEE Access	https://ieeeaccess.ieee.org/
6	IEEE Communications Magazine	https://www.comsoc.org/publications/ma gazines/ieee-communications-magazine



No.	Journals	URL
7	IEEE Transactions on Cloud Computing	https://www.computer.org/csdl/journal/cc
8	Elsevier Journal of Systems and Software	https://www.sciencedirect.com/journal/jo urnal-of-systems-and-software
9	Elsevier Computer Networks	https://www.sciencedirect.com/journal/co mputer-networks
10	IEEE Computational Intelligence Magazine	https://cis.ieee.org/publications/ci- magazine
11	Elsevier Computer Communications	https://www.sciencedirect.com/journal/co mputer-communications
12	IEEE Transaction on Mobile Computing	https://www.computer.org/csdl/journal/tm
13	IEEE Transactions on Wireless Communications	https://www.comsoc.org/publications/jour nals/ieee-twc
14	IEEE Cloud Computing	https://ieeexplore.ieee.org/xpl/RecentIssu e.jsp?punumber=6509491
15	IEEE Transactions on Network and Service Management	https://ieeexplore.ieee.org/xpl/RecentIssu e.jsp?punumber=4275028
16	IEEE Vehicular Technology Magazine	https://ieeexplore.ieee.org/xpl/RecentIssu e.jsp?punumber=10209
17	MDPI Sensors	https://www.mdpi.com/journal/sensors
18	MDPI Smart Cities	https://www.mdpi.com/journal/smartcitie
19	Elsevier Internet of Things	https://www.sciencedirect.com/journal/int ernet-of-things
20	Inderscience International Journal of IoTs and Cyber-Assurance	https://www.inderscience.com/jhome.php ?jcode=ijitca
21	IEEE Wireless Communications	https://www.comsoc.org/publications/ma gazines/ieee-wireless-communications
22	Springer Wireless Networks	https://www.springer.com/journal/11276
23	IEEE Network	https://www.comsoc.org/publications/ma gazines/ieee-network
24	MDPI Future Internet	https://www.mdpi.com/journal/futureinter net/

3.5.1 Open access strategy

In line with the Guidelines on Open Access to Scientific Publications and Research Data in Horizon Europe, and as defined by the Data Management Plan in D1.2 (delivered in M6), open access to all peer-reviewed publications relating to project results and to research data is ensured. To satisfy this requirement, all scientific publications that are not freely available on the publisher website are deposited in Zenodo (https://zenodo.org/), a general-purpose open-access repository developed under the European OpenAIRE (https://www.openaire.eu/about) Program and operated by CERN, which promotes Open Science and the collaboration among researchers and other communities. The project beneficiaries will aim to ensure open access ('gold', or 'green') to all peer-reviewed scientific publications relating to the project results. In the case of the green access model, a pre-print or a post-print of papers will be available through Zenodo and/or on the project website delayed by the embargo period when it applies as for publisher policies. For those papers published under the gold open access



model, the original paper versions will be freely available on the publisher web site. In any case, the project website will provide all the details to retrieve official or pre-/post-print versions of scientific publications. Furthermore, publication of project results in open peer-review platforms (Open Research Europe) will be also promoted, as well as contribution on behalf of the project on reviewing relevant publications.

In NEPHELE, the consortium authors are responsible for checking that their publications are uploaded to Zenodo and properly linked to the project by completing the Funding section with the NEPHELE grant detail. ZHAW, as the final responsible of this task, will periodically check the list of publications with partners and if the link to an open version in Zenodo has been provided.

· > C (zenodo.org/deposit/new		G	@ @ ☆	🗯 🖬 😳 E
PSALib 🗏 ps	salib.auth.mpsa.co 🔤 Atos Safe Office 🎯	OneTrust JCADP -C 🔤 Contenido del sitio 📑 Currici	ulum Details 🔤 WIKI ARI-Horizon E 🔤 ARI Marcom - Cybe 🛓	Submit a propo	osal »
		you think that a license is missing from	m the list, please contact us.		
	Funding		recommend	led 💙	
	-	eporting lines for research funded by funded your research, and we will let	the European Commission via 🗹 OpenAIR your funding agency know!	Ε.	
	Image: Organity of the second seco	European Commission (E	NEPHELE	×	
		Optional. OpenAIRE-supported projec use the Additional Notes field. Note: a human Zenodo curator will ne	eNd to End scalable and dynamically	se delay	
		before it is available in OpenAIRE.	reconfigurable oPtical arcHitecture for application-awarE SDN cLoud datacentErs	Jeldy	
		• Add dhothor grant			
	Related/alternate identifier	S	recommend	led 🗲	

Figure 14: Completing the Funding section with NEPHELE grant when uploading a publication to Zenodo

3.5.2 Guidelines for partners

The dissemination procedures and guidelines to be followed by partners for the publication or presentation of work done within the framework of the NEPHELE project are defined in Section 8.4 of the Consortium Agreement [3] and Article 17 of the Grant Agreement [2]. To record, track, monitor, coordinate, and report all the project dissemination activities (publications, participation to events, contributions to press and media etc.) an Excel file was prepared to report each partner's contribution, prepare, and update a list of possible future actions, and monitor/assess each dissemination activity. This file, created at the very beginning of the project, is composed of three different sheets: Dissemination Requests, Publication Report and Dissemination Activity Report (see Tables 14, 15 and 16). The Dissemination Request form will be used to ensure that all partners respect the rules for Dissemination agreed on in Section 8.4 of the Consortium Agreement. Specifically, written notice per email using the form in Table 14 of any planned dissemination activity shall be given to the other Parties at least 30 calendar days before the publication/event. Any objection to the planned publication/presentation shall be made, in accordance with the Grant Agreement [2], by written notice (including electronic means, such as e-mail etc.) to the Coordinator and to the Party or Parties proposing the dissemination within 15 calendar days after receipt of the notice. The CA [3] defines in detail in which cases a partner can object and what to do in case of an objection. If no objection is made within the time limit stated above, the dissemination activity is permitted. The publication report and dissemination report tables (i.e., tables 15 and 16) include information about each dissemination activity performed within the project (type and title, URL and references, targeted public and participants, date, location, NEPHELE partner responsible for such Dissemination, visibility level, methods used etc.). The dissemination activities report should be filled in by the leading partner of every realised dissemination activity. The purpose of this is to



provide the necessary information to publish the activity to the NEPHELE website and report to the European Commission. In particular, the leading partner should report which version of the publication is possible to publish on the NEPHELE website in accordance with the open access strategy defined in Section 3.5.1. The Excel file is distributed amongst the Consortium members and updated internally during the whole NEPHELE project duration. This updated information will be inserted in the Deliverables D8.2 and D8.3 for dissemination activities at month M18 and M36 respectively.

Date of disseminat ion request	activity	Partner responsibl e/Main initiator of activity	Title of event/joumal/ book	Title of article/ book/thesis/p resentation	Open Access (gold/gre en)	Partners	publicati	Link to document or presentation	ce to	Approved by consortium / conflict objection

Table 14: List of Dissemination Requests

Table	5: Publication Report	Form
14010	er i demeddion reeport	

Type of publication	Main Author / Partner	Title of publication	Other authors / Partners	Title of journal/ book/ conference, Publisher, volume, page, ISSN	Date of publication	DOI number	URL	Permission to publish on NEPHELE website	Relevance to NEPHELE

Table 16: Dissemination Activity Report Form

Name of event	Type of event	Date	Place		Number of participants/Visibility	Dissemination material or means used	presentation/demo/	Relevance to NEPHELE

In accordance with the GA [2], at least the following disclaimer must be indicated for all dissemination activities: "Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. The European Union cannot be held responsible for them." The following acknowledgement text should be included in all publications related to the NEPHELE work: "This work is a part of the NEPHELE project. This project has received funding from the European Union's Horizon Europe research and innovation programme under grant agreement No 101070487. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. The European Union cannot be held responsible for them".

3.5.3 Public and open access technical deliverables

The consortium has identified a list of public and open access technical deliverables as reported in Table 17. This list can be extended with other technical deliverables if a specific request is received from the European Commission during the review process. The listed deliverables will be published on the NEPHELE website after the review and acceptance of the European Commission. In some cases, the partners could also agree on publishing an earlier version of the deliverable given that the following text is added to underline that it is not yet an approved version of the deliverable: *"This deliverable is subject to final acceptance by the European Commission"*.



No.	Deliverable name	WP	Leader	Туре	Delivery date
D2.1	Requirements, Use Cases Description and Conceptualisation of the NEPHELE Reference Architecture	WP2	INRIA	Report	M09
D2.2	NEPHELE Reference Architecture Final Specification	WP2	NTUA	Report	M18
D3.1	Initial Release of VOStack Layers and Intelligence Mechanisms on IoT Devices	WP3	SIEMENS	Report & Other	M15
D3.2	Final Release of VOStack Layers and Intelligence Mechanisms on IoT Devices	WP3	CNIT	Report & Other	M24
D4.1	Initial Release of Hyper-distributed Applications Synergetic Meta-Orchestration Framework, Development Environment and Repository	WP4	IBM	Report & Other	M15
D4.2	Final Release of Hyper-distributed Applications Synergetic Meta-Orchestration Framework, Development Environment and Repository	WP4	ATOS	Report & Other	M24
D5.1	First Release of NEPHELE Platform, Dashboard and DevOps Environment Setup	WP5	AW	Report & Other	M18
D5.2	Final Release of NEPHELE Platform, Dashboard and DevOps Environment Setup	WP5	NTUA	Report & Other	M36
D6.1	Use Cases Framework Definition and Initial Use Cases Execution Management and Evaluation	WP6	WINGS	Report	M22
D6.2	Final Use Cases Execution Management and Evaluation	WP6	ODINS	Report	M36
	Dissemination, Communication and Exploitation Plan	WP8	ATOS	Report	M03
	Initial Dissemination, Communication, and Exploitation Activities Report	WP8	ZHAW	Report	M18
D8.3	Final Dissemination, Communication, and Exploitation Activities Report	WP8	IBM	Report	M36

Table 17: List of Public and open access technical deliverables

3.6 Events and workshops

NEPHELE will organise events in the form of workshops where activities carried out within the project or also in conjunction with other peer projects will be presented and discussed. These workshops could either be organised alone by NEPHELE or co-organised with the concerned relevant peer projects. The main objective of these activities is the promotion of intensive interaction between relevant projects with interesting and complementary ideas that could help stimulate innovation and drive creativity for the projects to achieve higher productivity. This will foster the full maximisation of the outcomes of the scientific and technical results from NEPHELE. The partners, under guidance of the Coordinator, will evaluate during the project the best venues and the best fitting time meeting the needs for such an event or workshop organisation.

3.7 Open source and open standard communities list

NEPHELE is going to be based on open science principles and provide open access to the main produced outcomes, considering the open cooperative work among the consortium partners. Specifically, both the VOStack and the Synergetic Meta-Orchestration framework are going to be released as open-source,



while an open-source community is going to be built based on the support provided by consortium partners ECL and FBC (see Section 6 for more details on the strategy). Release of various versions of the open-source software and engagement of the community towards its maintenance and extension will be envisaged, also considering the involvement of various stak eholders through the open calls. Synergies will be fostered between NEPHELE, the European Edge-Cloud research and technology development ecosystem focusing on Open-Source Software, and relevant Open-Source Communities (e.g., Eclipse IoT/Edge) focusing on Open-Source Software. Regarding the datasets used or created within NEPHELE, their release as open data will be promoted, including documentation regarding the way that they can be reused by interested parties.

3.8 Open Call dissemination strategy

This project includes an Open Call. The Open Call launch, dissemination and management will take place in M10-M12/M19-21.

The project dissemination activities will be further supported by the open call communication and dissemination activities that will be led by FundingBox (FBA, FBC), and include the following stages:

- Preparation stage
- Launch of the open calls and communication activities to attract applicants
- Closing stage with a press release and infographics illustrating the main results of the open calls.

See details about the stages in the following subchapters.

3.8.1 Preparation for the Open Calls

The preparation stage will start at least 2 months before the launching of the Open Call. Dissemination activities will begin 1 month prior to the Open Call launch. These dissemination actions will include, among others, the preparation of the OC Landing Page, the dynamization of the community spaces and social media networks (owned and consortium ones). The communication actions involve, among others, the creation of the Open Call (OC) Communication Toolkits for partners and stakeholders as per need during the duration of the OC. The OC Communication Toolkit is a collection of promotional materials that will be created by the FundingBox team to facilitate the communication of the open calls. These materials will be distributed between the consortium members and external partners, who should be actively contributing to the promotion of the open calls. All materials will be easily accessible on the project repository and/or google sites to facilitate access to external partners.

The OC Communication Toolkit for partners will include, among others: social media banners and copies, newsletter and website content as well as emails for their networks and email signatures. Other toolkits will be created with tailor-made content for external partners i.e., external media, influencers, supportive partners.

See below further details on the most important communication actions.

Content in specialised media

After conducting market research on industry media, potential supportive partners, ambassadors and influencers with a strong following on social media, also targeting NEPHELE's target audience, FundingBox will produce tailor-made materials including, among others, infographics, banners, short and long entries for newsletters and social media copies. These actions will be replicated and promoted through the project's own channels.

Newsletters and Email Campaigns

Email marketing will be widely implemented while promoting NEPHELE's open calls. Information about the open call will be included in NEPHELE's newsletter and all partners should also include a section about the open calls in their newsletters. It is worth mentioning that the Open Calls will be also



featured in the FundingBox Opportunities Newsletter. This newsletter has 25K recipients of which a good percentage are among NEPHELE's key target audience for the open calls.

Email templates provided will include a call to action to apply for NEPHELE's open calls. These templates will be also used by all partners for cross-dissemination purposes (e.g., possible collaborations with influencers, ambassadors and other supportive entities).

Social Media

A social media plan for the dissemination of the open calls will be created. NEPHELE's social media accounts will be used to disseminate the open calls. Furthermore, all partners will be encouraged to share posts about the open calls using their own social media channels.

3.8.2 Launching and running of the Open Calls

Once the open calls launch, the activities listed in the table below will take place.

Activity	Description
Info days and webinars	Partners will be organising info days at a national level and FundingBox will organise online webinars in order to describe and promote the Open Call.
Social media dissemination	The Open Call's social media strategy will focus on three primary channels: Twitter, LinkedIn and the online community.
Owned & shared social media	NEPHELE's social media posts will be crucial to reach stakeholders that can be interested to apply for the Open Call. This is why all the consortium, supportive partners, influencers and ambassadors will be engaged in supporting the project's dissemination efforts.
	In terms of target impact, the dissemination through social media will be mainly addressed to potential applicants in the industry and the general public.
	Other EU Projects, especially those related to the scope of NEPHELE, will be contacted to spread the word to help the OC reach more applicants.
Paid social media	FundingBox will be launching a Paid Media Campaign with the goal of attracting profiles of potential applicants that work in SMEs.
	Lead Ads Generation Campaign will be launched within LinkedIn, a preferred channel that will help us conveniently identify the target audience able to make business decisions regarding new investments or funding opportunities.
Mailing campaign	NEPHELE will rely on a variety of Supportive Partners to help multiply the impact of our dissemination efforts and give visibility to the project and its achievements.
Open Call helpdesk in NEPHELE Community	FBA will put in place a Q&A/Helpdesk space inside the NEPHELE Community. All the applicants and potential applicants will be able to ask questions there, and the responses will be visible to everyone visiting the space. FBA will be in charge of answering all the questions in this space and publishing a FAQ guide and updates in the news section.

Table 18: NEPHELE Open Call Activities

Besides the activities listed above, NEPHELE will also utilise ambassadors and influencers for the dissemination purposes. The objective of the NEPHELE Ambassadors Programme is to increase the



community of the project, raise its awareness and visibility and enhance the connections of its members. There will be two types of ambassadors:

- 1. Influencers: well-known experts from the Cloud, Edge and IoT domains that have a substantial network of followers and would be able to attract users to our community.
- 2. Experts / Interlocutors: lesser-known people but with interesting expertise providers of content to our community.

The selected ambassadors will be enlisted to the following:

- 1. Disseminate information through their networks on the NEPHELE project.
- 2. Create brand awareness around a specific topic or area related to Cloud, Edge and IoT Continuum, so their recognition contributes to generate brand awareness around NEPHELE.
- 3. Provide content from their experience, work, and networks, all related to NEPHELE, on a regular basis and stay tuned to our social media and share some posts and tweets.

3.8.3 Closing the Open Call

Once an open call closes, a press release with an infographic informing about the results and the number of submitted applications will be published on the project's website, social media channel and on the online community. Furthermore, the social media actions in the different NEPHELE's social media channels will be analysed and pondered during the first Open Call by using Urchin Tracking Modules (also applied/used in all actions). This data will allow us to select the best performing actions to improve the strategy for the second Open Call.

Additional dissemination actions include featuring the most relevant/successful actions performed by external partners on the project's website, social media and community (e.g., articles by influencers/ambassadors or publications in relevant media). Moreover, Open Call beneficiaries will act as success stories that will be featured in all project channels. A dedicated space for this purpose will be created on the project's website and the community. Furthermore, dissemination materials will be created to feature the Open Call beneficiaries (e.g., interviews, short videos/stories, articles, testimonials, among others).

Finally, a survey about the open calls will be sent to all applicants to receive feedback from them and improve the process.



4 Standardisation activities

ERCIM leads Task 8.3 on standardisation. This task spans the entire project.

A plan to work with project partners to identify which standards will be used during the project will be set, along with identifying standardisation gaps and devising concrete plans for contributions to standardisation. ERCIM will need to work with the whole consortium - and not just those partners with effort in Task 8.3 – in order to establish an effective collaboration with those working on developing NEPHELE software as well as those working on user cases and pilots. Where appropriate, and as stated in the DoA [1], this task will liaise with other research projects –especially other funded projects in the HORIZON-CL4-2021-DATA-01-05 call quoted in section 3.2 of this document– and relevant stakeholders to gather support for standardisation proposals.

When it comes to contributions to standards development organisations, e.g., ETSI, IEEE, IETF, ISO, W3C etc, ERCIM will look for ways for partners to offer talks, use cases, specifications and project experience. Contributions are expected to industry fora, e.g., AIOTI Working Group Standardisation, which act to gather industry needs as well as to disseminate best practices for applying standards.

In addition, the task leaders expect to coordinate with other NEPHELE tasks in relation to open-source software as a basis for de facto standardisation. This includes consideration of licensing and governance models.

The approach to all of this is a combination of surveys, follow up interviews and discussions within the standardisation task force, using regular teleconferences and shared document editing as appropriate.

ERCIM has started to gather the technologies mentioned in the grant agreement and will analyse these further in preparation to drafting an initial survey.

4.1 Which standards will be used during the project?

Web Standards from the W3C Web of Things

W3C's Web of Things (WoT) work is designed to bridge disparate technology stacks to allow devices to work together and achieve scale, thus enabling the potential of the Internet of Things by eliminating fragmentation and fostering interoperability. The Web of Things complements existing IoT ecosystems to reduce the cost and risk for suppliers and consumers of applications that create value by combining multiple devices and information services. There are many sectors that will benefit, e.g., smart homes, smart cities, smart industry, smart agriculture, smart healthcare and many more.

The W3C WoT activity is composed of 3 groups:

• Web of Things Working Group (<u>https://www.w3.org/groups/wg/wot</u>)

With Web of Things a complete standard since 2020, the Web of Things Working Group continues to work on operability profiles, discovery, lifecycle/onboarding, and ID management. The WoT Working Group has published two web standards: Web of Things (WoT) Architecture and Web of Things (WoT) Thing Description. W3C membership builds standards by implementing them as they are being built. This has resulted in the WoT Technologies being available today in a number of solutions from their members and others in the technology industry. For example:

- Siemens Desigo CC, their flagship Building Management Station uses WoT to help easily integrate data points and functions from different IoT systems into the Desigo CC management station and from there to cloud systems;
- The Eclipse Thingweb node-wot is a reference implementation (in Node.js) of the WoT standards and used as baseline for many other implementations and WoT-based projects (including proof of concept projects for Smart Cities and Retail);
- Node-RED, the well-known low-code development tool from the OpenJS Foundation, supports the WoT Thing Description as part of the Node Generator project to simplify the development of Node-RED nodes;



- Mozilla WebThings is an open platform based on WoT to develop privacy and security based smart home applications;
- Further WoT runtime implementations are WoTPy (in Python) and SANE Web of Things Servient (in Java).

The WoT Working Group conducts some of its work via 5 task forces:

WoT Architecture, responsible for the abstract architecture and interoperability profiles for the Web of Things.
 Current work is focused on two normative deliverables: WoT Architecture and WoT Profile.

See details in https://www.w3.org/WoT/activities/task-forces/tf-architecture/

- WoT Thing Description, responsible for defining the information model for WoT Thing metadata, its interpretation, and its common representation. Current work is focused on one normative deliverable: WoT Thing Description 1.1 and one informative deliverable: WoT Binding Templates. See details in https://www.w3.org/WoT/activities/task-forces/tf-td/
- WoT Discovery, responsible for defining a distribution mechanism for WoT Thing Descriptions that can be used to facilitate access to WoT Things and services while supporting security and privacy. Current work is focused on one normative deliverable: WoT Discovery. See details in https://www.w3.org/WoT/activities/task-forces/tf-discovery/
- **WoT Security**, responsible for identifying and analyzing the security and privacy considerations of the WoT and providing recommendations to support appropriate security technologies and to mitigate security and privacy risks. Current work is focused on one informative deliverable: WoT Security and Privacy Guidelines.

See details at https://www.w3.org/WoT/activities/task-forces/tf-security/

• **WoT Scripting API**, responsible for specifying an application programming interface (API) representing the WoT Interface that allows scripts to discover, invoke interactions with Things, and expose interactions for locally defined Things.

Current work is focused on one informative deliverable: Web of Things (WoT) Scripting API.

See details in https://www.w3.org/WoT/activities/task-forces/tf-scripting/

• Web of Things Interest Group (<u>https://www.w3.org/groups/ig/wot</u>)

The Web of Things Interest Group brings together stakeholders to explore ideas prior to standardisation by liaising with external standards development organisations and industry alliances. The group seeks to build a shared understanding of the Web of Things and to identify opportunities for initiating W3C standards-track work.

The group is chartered until the end of 2023, adding marketing and outreach to its scope which the group aims to fulfil via the development of supporting materials such as implementation guidelines and tutorials, and the organisation of PlugFest and Testing events.

The WoT IG has produced videos: <u>https://www.w3.org/WoT/videos/</u> (introduction, updates, tutorials, interviews)

The WoT IG is developing a "Group note": Web of Things (WoT): Use Cases and Requirements.

This document contains chapters describing the use cases that were contributed by multiple authors, functional and technical requirements on the Web of Things standards. Additionally, it contains a summary of the liaisons, where active collaboration is taking place at the time of writing. Since this document is a WG note, additional use cases will be added in future revisions of this document.



• Web of Things Community Group (<u>https://www.w3.org/community/wot/</u>)

The aim of the Web of Things Community Group (CG) is to accelerate the adoption of Web technologies as a basis for enabling services for the combination of the Internet of Things with rich descriptions of things and the context in which they are used.

4.2 Contributions to standards development organisations and industry fora

Beyond the W3C WoT working group, the project will disseminate results to relevant standard isation bodies and industry fora where partners are already active. This includes initiatives such as the Alliance for Internet of Things Initiative (AIOTI), the 5G Infrastructure Public Private Partnership (5G PPP). This also includes groups in ETSI such as the ETSI Industrial Specification Group (ISG) crosscutting Context Information Model (CIM), which develops the NGSI-LD information model, the ETSI Experiential Network Intelligence (ENI) working group, the ETSI Zero touch network and Service Management (ZSM) working group, or the ETSI OSM project that develops an open-source Management and Orchestration stack aligned with ETSI NFV Information Models.

4.2.1 Standardisation bodies and industry for where W3C is already active

In order to coordinate the development of the Web, W3C engages in liaisons with numerous organisations. The ones in which the WoT activity is affected are:

- Alliance for Internet of Things Innovation (AIOTI) <u>http://www.aioti.eu/</u>
- ECHONET consortium <u>https://echonet.jp/english/</u>
- ECLASS <u>https://www.eclass.eu/</u>
- ETSI <u>https://www.etsi.org/</u>
- Hypercat Alliance a wholly independent (not-for-profit) subsidiary of BSI Group https://www.bsigroup.com/en-GB/industries-and-sectors/Internet-of-Things/
- IETF <u>https://www.ietf.org/</u>
- Industrial Internet Consortium (IIC) <u>http://www.industrialinternetconsortium.org/</u>
- ISO/IEC JTC 1/SC 41 <u>https://www.iec.ch/dyn/www/f?p=103:7:0::::FSP_ORG_ID:20486</u>
- ITU-T Group 20 <u>https://www.itu.int/en/ITU-T/studygroups/2017-2020/20/Pages/default.aspx</u>
- Open Connectivity Foundation (OCF) <u>http://openconnectivity.org/</u>
- OneM2M <u>http://www.onem2m.org/</u>
- OPC Foundation <u>https://opcfoundation.org/</u>
- The Open Group <u>http://www.opengroup.org/</u>



5 Exploitation strategy

Task 8.4 will be in charge of the exploitation activities, and NEPHELE exploitation leader will be in charge of this task.

Exploitation plan

The exploitation plan will include a list of project results and target groups, the market analysis, the individual exploitation plans for each partner and the joint exploitation plan.

The NEPHELE project will produce a **list of results** in the form of specifications, design guides, demonstrators and other scientific material for the **target groups audience** in Table 1 of this document. During the first year of the project, the exploitation activities will cross this table with the list of results or main exploitation assets coming from the technical work packages to establish a realistic roadmap for the deployment of the developed solutions and its commercial exploitation. The refinement of this roadmap - with the leveraging on the ecosystem analysis and needed market research to maximise the project impact - will generate the exploitation plan.

Product	Туре	Stakeholder	Licence	Time to Market	Owner
Architecture	Document	Application providers	Creative	End of the lifetime of	Consortium
Specification		Application developers	Commons	the project	members
		IoT vendors			
VOStack	Software	Application developers	Open source	18 months after project	Consortium
		IoT vendors		completion	members
IoT Enablers	Software	Application providers	Open source	1 year after project	Consortium
		IoT application developers		completion	members
Virtual Object	Software	IoT devices vendors	Open source	1 year after project	Consortium
		IoT application developers		completion	members
Intelligent IoT	Hardware	IoT devices vendors	Proprietary	18 months after project	SIEMENS,
Devices				completion	ODINS
AI-assisted	Software	Application providers	Open source	1 year after project	Consortium
Synergetic		Application developers	_	completion	members
Orchestration					

Table 19: NEPHELE overview of the main exploitation assets (From NEPHELE DoA)

The market analysis will be developed during the first year and will include:

- State of the art
- Identification of the market potential and market needs
- PEST analysis to assess the external factors in relation to the business situation
- Porter's five forces for internal analysis
- SWOT analysis

The **individual exploitation plans** for each partner will be prepared by organising internal workshops to support partners in the generation of the relevant information.

The **joint exploitation plan** will consider the inputs of the individual exploitation plans and the considerations of intellectual property Rights.

As stated in the DoA [1] the exploitation plan progress will be reported in two iterations, in D8.2 (M18) and D8.3 (M36).

Business plan

During the first year of the project, the basis of the business plan will be also established with the help of the Business Model Canvas. This visual tool will help to analyse how business will happen (assets, partners, existing activities and resources), the value proposition, the customers and the financial structure (including inflows and outflows). The tool will be used in business-oriented interviews,



questionnaires, hands-on demonstrations and other feedback mechanisms with the engagement of the stakeholders. The calendar for these activities will be planned in synergy with the other WP8 task leaders and reflected in a general calendar.

The NEPHELE consortium will implement an open-source strategy based on the Eclipse Foundation framework. This strategy is described in Section 6 of this document and is handled by T8.5 leader. This resulted in the first description of a go-to-market strategy described in the DoA [1]

- *Phase 1:* NEPHELE will identify their commercial challenges in real market contexts. The results derived from the use cases will be used to create a community of "early adopters" (through activities in WP8).
- *Phase 2:* NEPHELE will reach the "early majority" with the partners and early adopters (through exploitation and impact creation activities in WP8).

Business plan key metrics

In order to define the business viability of NEPHELE solutions in the Next Generation Internet and the selected use cases specific domains, some key metrics will be analysed:

- Market size
- Recurring revenues
- Cost base
- Scalability

Intellectual Property, knowledge protection and regulatory issues

IPR Management during the project: A table with the essential aspects and explicit rules concerning IP ownership for each partner, access rights to any background and/or project results, protection of intellectual property rights (IPRs) and confidentiality of information will be prepared in the first months of the development. Forms will be distributed amongst the consortium partners to compile this information. If needed, meetings and internal workshops will be prepared to clarify any point.

Consortium Agreement: The NEPHELE partners have signed the Consortium Agreement (CA) in July 2022, prior to the starting date of the project. The CA includes terms based on the main IPR concepts. The CA establishes the legal framework and regulations for intellectual property ownership and access rights to any background and results and further details like joint inventions and joint patent applications. The use and transfer of results is also determined.



6 Open source strategy

This task will implement the open source strategy to maximise up-take and achieve sustainability of project results beyond the project lifetime and contribute to a sovereign, open European IoT-Edge-Cloud Continuum.

The strategy will work on several aspects, create and integrate NEPHELE in a rich online community, draw with NEPHELE the plan to contribute to existing communities and open source projects and put the basis to create an open source stack. It will lay out the plan and means to contribute to relevant existing open-source projects and communities and define licensing guidelines (inbound and outbound). In this way, NEPHELE will contribute to and support the Open European Iot-Edge-Cloud Continuum strategy.

One of the key points in the strategy is sustainability and the focus will be to integrate NEPHELE in a community. In particular, one of our priorities will be the creation of a rich online community, which includes end users that participate in the internal use cases (WP6), innovators, developers contacted through the Open Call (WP7) and all types of stakeholders interested in fostering the up-take of NEPHELE outcomes. This will support the creation of an active community of developers and early adopters, including open call participants.

In summary, the key aspects of a good open source strategy are:

- to draw and keep track of the open source landscape of the project,
- to create an environment that allows doing proper open source, and
- to lay out measures for community building, sustainability and long-term governance.

These aspects materialise in the following concrete actions for implementing the NEPHELE open source strategy:

1. Identify what partners bring into the project.

As an initial step of the landscaping activities, all the assets that partners bring into the project will be identified. This effort has been started during the proposal phase and is currently being refined with a more in-depth analysis with all technical partners.

2. Identify open source outputs.

The second part of the open source landscaping activities is related to the project outputs: Will the project develop new tools or products? Does it aim to provide a full-fledged integrated platform? Does it aim to extend or contribute significantly to already existing tools that partners bring into the project? Or probably a combination of all of those? It's important to identify and state as clearly as possible which parts of the project results will be open source and of what nature they will be, answering to the above questions. This activity contributes to a coherent open source landscape of the whole project. It has started and is currently work in progress.

3. Target relevant open source communities.

When an initial open source landscape is drawn, relevant communities can be identified. Naturally, these communities are to some degree defined by open source projects that partners bring into the project but it is always worth thinking about other communities beyond the obvious ones. When the initial steps have been made and the project has reached a solid architecture and definition, a close work with the dissemination activities will start also by considering ambassadors and influencers could be hired to disseminate the project in their ecosystems (e.g., technology leaders from Eclipse IoT & Edge Working Groups). In parallel, the content strategy for the community will be defined while a digital campaign will be organised to widely advertise the community within relevant domains in the EU. Content related activities such as posts, events and interactive activities, such as Q&A, webinars, will be continuously organised to keep users engaged with the community and success stories and/or



Testimonials interviews will be drafted. Close collaboration with standardisation, dissemination, exploitation and Open Call activities is mandatory.

4. Take care of IP and licensing.

Discussing open source licences is important. The consortium should agree on (the types of) licences for the project results, based on the open source licensing processes defined in the CA. For example, to allow for commercial exploitation of the open source results, strong copyleft licences should not be allowed to be brought into the project (at least not without prior agreement). When the project is running and code is being developed, it will be wise to keep track of all the inbound IP and licences. The goal here is to identify issues as early as possible. e.g. exchanging a GPL'ed library will be much easier when detected early, than it will be later, when a lot of code is already depending on it. The NEPHELE open source strategy is based on business-friendly open source to allow for exploitation of the results. Training, coordination and support on open source licensing will be provided throughout the project.

5. Develop in the open early.

As the name indicates, *open* source development is meant to happen in the open. In most cases it is not a good idea to wait until the end of the project because "the code has to be polished before showing it to the public" or "is not ready yet" for whatever reason. Developing behind closed walls is an open source antipattern. It will slow down the project and the effort to "do it later" will keep growing. Therefore, efforts to set up the project's infrastructure (i.e. a public repo) and training on open source best practices are underway. The goal is to implement these best practices at the heart of NEPHELE to foster knowledge transfer and unleash all the benefits of open collaboration.

The initial timeline of the NEPHELE open source strategy is shown in the table below. The Analysisand partially the Landscaping Phases have been initiated by collecting initial input from partners. The related questionnaire can be found in Annex 1.

Phase	Activities	Timing
Analysis Phase	- Identify partners' software and IP/licenses	M1 - M6
	- Identify open source software to use and build on	
Landscaping Phase	- Identify the NEPHELE open source assets (aligned with exploitation goals)	M3 – M14 (and
	- Identify in which projects and communities to engage / where to put the	ongoing)
	focus	
Engagement Phase	- Develop, contribute upstream, engage with developers	From M14 (and
	- Disseminate at open source & developer events	ongoing)
	- Organise events with community members	
Sustainability Phase	- Partners are actively engaged in communities	From M30
	- NEPHELE contributions are part of projects and communities or led to	(ongoing, beyond
	new open source projects	project lifetime)

Table 20: Open Source Strategy Timeline

Finally, the NEPHELE open source strategy is well integrated with the Eclipse Foundation framework for successful, vendor-neutral, business-friendly open source. This framework (see Figure 15) is based on four main pillars: (i) infrastructure for open collaboration & development (ii) integration relevant open source communities and business ecosystems (iii) governance for managing successful open-source projects and community building and (iv) intellectual property (IP) management that ensures IP is tracked and properly managed and open-source project results can be exploited by academic and commercial partners alike. This framework is operationalised by the NEPHELE open source strategy.



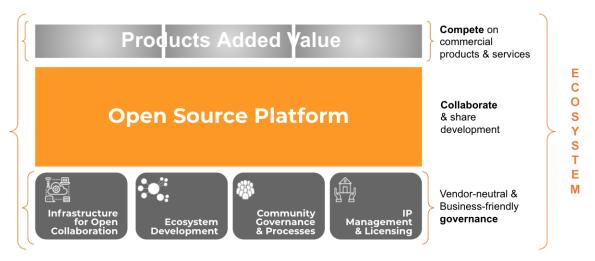


Figure 15: Framework for successful, business-friendly open source



7 Management and reporting

As stated in the NEPHELE DoA [1], one of the main objectives of WP8 is to plan, coordinate and lead dissemination and communication activities for the promotion of the project work and results to appropriate scientific and stakeholder communities. To ensure the best coordination possible among partners, the following mechanisms for management are set in place:

- Identification of communication and dissemination contacts per partner: one of the first actions that will take place are the identification of the communication and dissemination person in charge within each partner's organisation. Targeted communication with these selected contacts will optimise and improve the coordination of these actions.
- Coordination meeting: regular meetings will take place between the WP8 leader and the dissemination partner to align actions. Also, every two-months the WP leader will meet with the communication contacts per partner to coordinate communication and dissemination actions. The timing and recurrence of these meetings will be adapted to the needs of the project.
- Input forecast: In order for the strategy to be aligned with the evolution of the project, timetables will be drawn up including the specific input of each partner in all tasks, so that it can be foreseen well in advance what materials and information will be needed by the Communication team from each partner at each stage.
- Reporting and tools: Different reporting templates will be created and uploaded to the project repository to gather dissemination and communication actions, community building, content creation and any other required actions. These will be accessible to all project partners to report possible actions. Their revision should be done at least once a month. The templates should compile information about press clippings, social media actions, papers submission, participation in events, etc., that will facilitate the compilation of information for deliverables and will help to monitor the KPIs achievement and the effectiveness of the strategy. During the project lifetime, the strategy will be adjusted and redefined when needed.
- Evaluation: Feedback, for each communication activity, will be collected including qualitative and quantitative information (number of participants, cultural background, contact established, comments and suggestions) and will be analysed to derive indications used to improve the communication/dissemination activities and to better identify target audiences.



8 Key Performance Indicators (KPIs)

The evaluation of the communication and dissemination strategy concerns both qualitative and quantitative indicators. Once measurable objectives are defined, the process of evaluation will involve examining the progress of the strategy's implementation and will refer to an outreach activity that is quantifiable through the attendance of persons present from the audiences, quantity of material distributed, number of events participated, the development and dissemination of messages and materials, media presence and traffic created in social media, among others. In order to measure the impact of the conducted activities and to be able to adjust the communication and dissemination strategy for achieving the expected outcomes and maximising visibility, a set of initial metrics has been developed. Such metrics will allow having a regular update on the amount and the effectiveness of the activities conducted.

As stated in the DoA [1], "statistics of publications, audiences addressed, submitted standard proposals, as well as the number of website visitors will be collected and serve as performance metrics." An also adds: "Feedback, for dissemination activities, will be collected including qualitative and quantitative information (number of participants, cultural background, contact established, comments and suggestions) and will be analysed to derive indications used to improve the communication/dissemination activities and improve the identification of the needs of various audiences. When needed evaluation tools, such as forms and questionnaires, will be defined, distributed and compiled."

The purpose of dissemination & communication KPIs is to measure and report the success level of the actions designed. A table with some initial KPIs was provided in Table 4 of the DoA [1]. The DoA also includes a table of the Open Call KPIs (Table 6 of the DoA). Even if the Open Call KPIs will be reported in WP7, two of them that are more related to dissemination will also be reported here.

The following tables gather all KPIs that were listed in the DoA plus some other additional ones. The tables have also grouped the KPIs in tasks so they can be easily tracked and periodically reported by each task leader.

8.1 Communication KPIs

The communication activities of Horizon Europe projects go beyond dissemination: they do not involve project results only but also the project in general such as the societal challenges or European added value of the project. Thus, communication activities target a much wider audience, including the media and the general public. It is important to use a less technical language so that a non-specialist audience can easily understand the goals and means of the project.

Туре	KPI	Target by M36	Task
Website	Unique web visits	> 1000	Task 8.2
Twitter ¹	Tweets	300	
	Followers	250	
LinkedIn	Post Impressions	3500	
	Followers	100	
Marketing Material	PPT project presentation	1	
	Brochure	1	
	Videos	1	

Table 21: NEPHELE Communication KPIs

¹ Due to the recent changes in Twitter's policy the convenience of staying on this social network will be evaluated along the project's lifespan.

Document name: D8.1 Dissemination, Communication and Exploitation Plan Page: 55 of 58



Туре	KPI	Target by M36	Task
	Open Call Infographics (2)-FBA	2	
Media Coverage ²	Tweets and Linkedin posts, editorials and clippings and blog posts	100	
	Workshops/webinars organised (2 for FSTP/support programmes; 3 scientific and technical workshops)	5	
	Webinars (1 per open call)	2	
Events	Number of webinars and workshop participants	300	
	No. of attendees/recipients of information campaigns, webinars, peer networking events	>1000	
Collaboration with other projects in the call	Collaboration activities	>10	Task 8.1
Community	Size of the community (incl. Twitter followers, mailing list subscribers, bloggers)	>1000	Task 8.5
	No. of Companies involved	>50	
	No. of SMEs and start-ups reached	Around 1000	WP 7
Open calls	No. of SMEs and start-ups participating in Open Calls	At least 80	

8.2 Dissemination KPIs

Dissemination aims at maximizing the impact of research results in the public domain. Therefore, the target audience of dissemination activities is any potential user of the project results: the scientific community, stakeholders, industry, policy makers, investors, etc. Due to the current pandemic the dissemination KPIs may be remodelled to accommodate online event formats and other activities that may be equal in terms of impact.

Table 22: NEPHELE Dissemination KPIs	8
--------------------------------------	---

Туре	KPI	Target by M36	Task
Scientific Dissemination	Scientific/technical publications in high impact conference and journals	> 15	Task 8.1
	Conference presentations	> 20	
	Number of event participants in scientific events	200	
Standardization	Number of contributions to standardisation bodies	>3	Task 8.3
Standardisation	Number of contributions in commercial and industrial bodies	>4	

² Tweets + Linkedin posts (~70), editorials + clippings (~10), blog posts (~20)



9 References

- [1] NEPHELE Description of the Action (DoA). NEPHELE Consortium, 2021.
- [2] NEPHELE Grant Agreement 101070487, European Commission, 2022.
- [3] NEPHELE Consortium Agreement, 2022.
- [4] Webster, T. (2015), 8 Surprising Twitter Statistics That Will Help You Get More Engagement, https://postcron.com/en/blog/8-surprising-twitter-statistics-get-more-engagement/, retrieved 2022-10-28.
- [5] Canva Pty Ltd (2022), Canva, https://canva.com, retrieved 2022-10-28.
- [6] Tifa Studio (2021), 10 Fonts for Architectural Portfolio Design, https://illustrarch.com/articles/6400-10-fonts-for-architectural-portfolio-design.html, retrieved 2022-11-04



Annexes

Annex 1 (Open Source Strategy)

Tools/Software/Hardware that you bring into the project

Please fill out one table for each Tool, Software-, or Hardware Project you bring into the project. This information is valuable to draw an initial landscape of NEPHELE Open Source (and beyond) activities and identify where NEPHELE will make relevant contributions and which communities to engage with.

Name	Name of the Tool, Software- or Hardware Project
Main contact	Name and Email of main contact
Short description	BRIEF description of its purpose (general)
Role in NEPHELE	What are your plans for applying it to NEPHELE?
	In which NEPHELE Task(s) will this happen?
Extension	Do you plan to extend it in the scope of NEPHELE?
	If Yes, can you briefly describe in which way? e.g. what will be the main features, interfaces, extensions you plan to do?
Open Source or Proprietary	Is it proprietary or open source?
License	Under which Licence?
Community and Standardisation	Is the development embedded in any kind of community? Think open source communities, standardisation bodies, and the like.
Collaborations	Are other partners involved in the development (inside and outside NEPHELE)?
Link to repository (if any)	
Link to website (if any)	