



D6.3: Dissemination, Communication Report

1st Update

Revision: v.1.1

Work package	WP 6
Task	Task 6.1
Due date	30/06/2024
Submission date	15/07/2024
Deliverable lead	MARTEL
Version	1.1
Editors	Kevin Keyaert, Maria Chiara Campodonico (MARTEL)
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Abstract	This document describes the ETHER communication and impact creation activities carried out during the first half of the project. Thanks to a close monitoring of KPIs and achievements, this document provides an overview of the activities implemented based on the strategy and plans outlined in D6.1 and the plan for the second half of the project.
Keywords	Dissemination, Communication, Liaisons, Community Building, Impact

Document Revision History *(update it or remove in the final version)*

Version	Date	Description of change	List of contributor(s)
V0.1	15/05/2024	Template with ToC and skeleton structure	Kevin Keyaert (MARTEL)
V0.2	10/07/2024	1 st version with comments	Kevin Keyaert, Maria Chiara Campodonico (MARTEL), all partners contributions
V1.0	12/07/2024	Final version ready for submission	Konstantinos Ntontin (UL)

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V1.1	24/07/2024	Updating scientific publications	Kevin Keyaert (MARTEL)
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ETHER (*sElf-evolving terrestrial/non-Terrestrial Hybrid nEtwoRks*) project has received funding from the [Smart Networks and Services Joint Undertaking \(SNS JU\)](#) under the European Union's [Horizon Europe research and innovation programme](#) under Grant Agreement No 101096526. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.

This work has received funding from the [Swiss State Secretariat for Education, Research and Innovation \(SERI\)](#).

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Project co-funded by the European Commission in the Horizon Europe Programme		
Nature of the deliverable:	R	
Dissemination Level		
PU	<i>Public, fully open, e.g. web (Deliverables flagged as public will be automatically published in CORDIS project's page)</i>	✓
SEN	<i>Sensitive, limited under the conditions of the Grant Agreement</i>	
Classified R-UE/EU-R	<i>EU RESTRICTED under the Commission Decision No. 2015/444</i>	
Classified C-UE/EU-C	<i>EU CONFIDENTIAL under the Commission Decision No. 2015/444</i>	
Classified S-UE/EU-S	<i>EU SECRET under the Commission Decision No. 2015/444</i>	

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

DEM: Demonstrator, pilot, prototype, plan designs

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

DATA: Data sets, microdata, etc.

DMP: Data management plan

ETHICS: Deliverables related to ethics issues.

SECURITY: Deliverables related to security issues

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

EXECUTIVE SUMMARY

ETHER's Work Package 6 (WP6), is the main vehicle for dissemination, communication and impact creation within the project. As such, it defines all the required actions to ensure that the project's work, solutions, and results are disseminated, demonstrated, and communicated among the appropriate stakeholders at the right venues to timely impact, improve, and drive innovation management activities.

This deliverable, prepared by WP6, builds on deliverable D6.1 Dissemination and Communication Plan that was submitted to the EC on June 13, 2023. The document describes pursued communication and dissemination activities, as well as tools and channels created to maximise the visibility of the project during its initial phase, i.e., since the project kick-off in January 2023, up to the project mid-term in June 2024. The document also outlines communication and dissemination activities planned for the remainder of the project.

During the first half of the project, the consortium has harvested fruitful results from a wide range of dissemination promotion and engagement activities. The different communication channels and dissemination tools identified at the beginning of the project were used to promote the main news, activities and results of ETHER. The key results are listed as follows:

- ETHER has participated in 26 relevant external events and presented itself to relevant stakeholders.
- ETHER set-up the dissemination and communication framework, including brand guidelines, website and social media launch and multimedia promotional tools, such as videos and postcards.
- 25 scientific publications have been published or submitted, presenting ETHER's progress.
- In total, ETHER has widely promoted its results and activities, including subscribers to social media channels, website visitors and through exposure on other relevant initiatives and projects, such as the European Smart Networks and Services Joint Undertaking (SNS JU).
- ETHER was featured in 2 news articles on specialised press and SNS JU publications.
- Over 3000 unique visitors browsed through the ETHER website.
- ETHER and its individual partners organised and co-organised a total of 2 events, often in close collaboration with related EU-funded projects within the overall SNS JU context.

For the second half of the project, the strategic perspective of the ETHER impact creation effort will continue to serve the overall success of the project and maximise the dissemination and communication effect within the communities of target stakeholders. Such effort includes:

- Continuation of the active promotion of project activities through different channels (such as project website, social media, newsletter, mailing lists of relevant other initiatives and projects).
- Participation to conferences and events.

- Organisation of ad hoc workshops and webinars.
- Publication of scientific articles and presentations in international peer-reviewed journals and conferences.

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ABBREVIATIONS

SNS JU	European Smart Networks and Services Joint Undertaking
TN	Terrestrial Network
NTN	Non-Terrestrial Network
GDPR	General Data Protection Regulation
URLLC	Ultra-Reliable Low Latency Communications
WP	Work Package

1 INTRODUCTION

AIM OF THE REPORT

The present deliverable is prepared in the context of **Work Package 6 (WP6)** “**Dissemination and Communication**” and aims to:

- Report on the progress and key achievements of ETHER’s dissemination and communication activities held from month 1 to month 18 (January 2023 to June 2024).
- Lay out a plan of outreach and impact creation activities for month 19 to month 36 (July 2024 to December 2025) to ensure the fulfilment of targets and supporting the successful conclusion of the project.

STRUCTURE OF THE REPORT

The sections of this deliverable are organised as follows: After the introductory **Section 1**, **Section 2** depicts dissemination and communication activities and tools used during the first half of the project (M1-M18). Moreover, it also gives an overview of collaborations and liaising activities, as well as impact assessment efforts and future dissemination activities. **Section 3** is the concluding section of the document.

2 DISSEMINATION AND COMMUNICATION

ETHER DISSEMINATION AND COMMUNICATION MATERIAL

2.1.1 Project website

The ETHER website, which was created in early January 2023, has been developed to act as an information hub presenting the project's goals, activities, and achievements. To this purpose, content has been constantly updated and featured as follows:

- General information about the project, its vision and objectives;
- Introduction of the consortium;
- Information about the technical solutions that ETHER is developing for integrated Terrestrial and Non-Terrestrial Networks, as well as the use cases for the deployment of the ETHER toolset;
- Reference to ETHER as a project funded under Smart Networks and Services Joint Undertaking;
- News items and press releases;
- List of relevant events;
- A repository of resources, such as publications, presentations/talks, promotional materials, videos, and public deliverables;
- Contact information.

The website is being continuously updated according to the progress of the project. Until today (end of June 2024, the website counts around 3479 visitors, who generated around **7159 page views** on an **average visit duration of 01'42"**). Drilling down into specific pages, the most popular pages – alongside the homepage – are the pages with general project descriptions as well as the event calendar and output pages (deliverables and publications).

The figures below provide the aforementioned plus some additional details: Figure 1 (Traffic overview and visit duration), Figure 2 (Visits overview), Figure 3 (Top visitor countries), and Figure 4 (Most popularly visited pages).

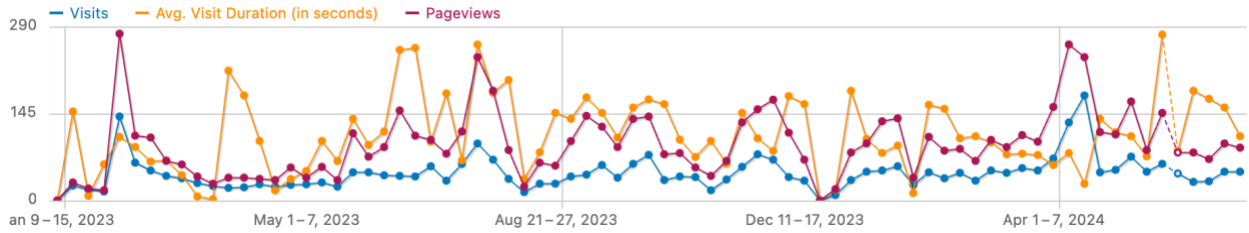


Figure 1: Website traffic overview (number of visits – blue, average visit duration – orange, pageviews – red), January 2023-June 2024

Visits Overview



Figure 2: Overview of visitor behaviour (January 2023-June 2024)

Country











COUNTRY	VISITS
 United States	407
 Spain	363
 France	306
 Greece	242
 Switzerland	227
 Germany	217
 Luxembourg	202
 United Kingdom	158
 India	142
 Italy	114

Figure 3: Top visitor countries



Page titles

PAGE TITLE	PAGEVIEWS	UNIQUE PAGEVIEWS	BOUNCE RATE	AVG. TIME ON PAGE	EXIT RATE	AVG. PAGE LOAD TIME
ETHER project	3,622	2,605	52%	00:00:39	74%	3.81s
About ETHER - ETHER project	523	412	62%	00:01:10	56%	1.28s
Consortium - ETHER project	386	322	44%	00:01:07	52%	1.05s
Public deliverables - ETHER project	212	178	42%	00:01:01	34%	0.89s
Scientific publications - ETHER project	178	154	76%	00:01:07	44%	0.95s
Presentations & talks - ETHER project	155	137	66%	00:01:11	45%	1.38s
Use cases - ETHER project	159	137	57%	00:01:29	45%	0.95s
Solutions - ETHER project	155	135	53%	00:00:37	37%	1.66s
News - ETHER project	139	123	53%	00:00:26	33%	0.91s
ETHER featured in Constellations from Kratos Magazine - ETHER project	116	102	77%	00:01:16	92%	2.27s

Figure 4: Most popular pages

Information and e-mails collected are protected under the General Data Protection Regulation (GDPR). Contact is and will continue to only be made with people who have submitted inquiries. Similarly, the newsletters are and will continue to be sent out only to individuals who have explicitly requested to receive them. Any person who has subscribed can request for their e-mail address to be removed from the list. The website provides information on the data kept and how they are used in alignment with the GDPR under the Privacy Policy link (footer of the webpage).

2.1.2 Social media

ETHER established its presence on social media channels to regularly promote the project activities and output while encouraging a wider promotion of integrated TNT solutions. The project has built a fair follower base on several social media channels, namely X, LinkedIn, and YouTube, which are all linked to the project’s website.

2.1.2.1 X (formerly Twitter)

ETHER uses X as a social network to cover the news in real-time, cross-share relevant and interesting initiatives, and to establish meaningful connections with targeted groups of stakeholders, including policy makers, industry, and the general public. So far, the [ETHER X account](#) has reached **167 followers** (including project partners, similar projects, interested stakeholders, etc.). In total, around **70 tweets** have been posted. The project also follows 66 accounts, mostly projects and initiatives in similar fields or of approximate nature where partners have been involved.

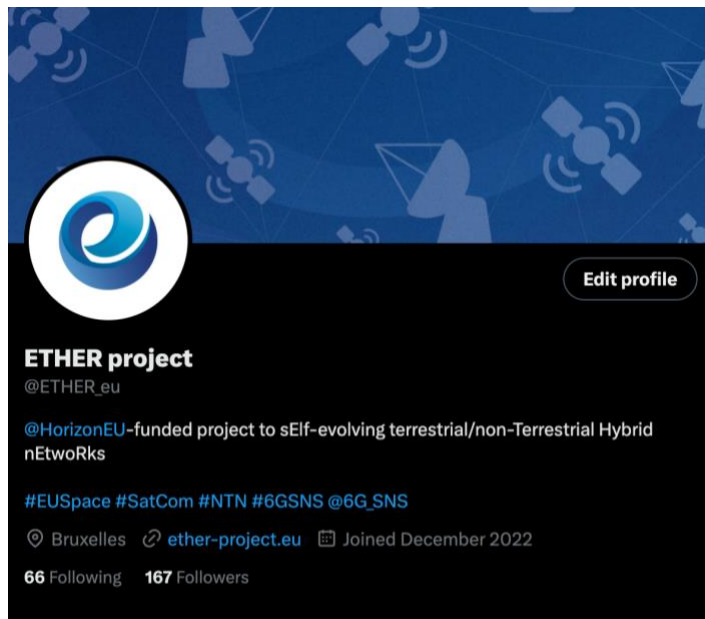


Figure 5: Screenshot of the @ETHER_eu X profile

2.1.2.2 LinkedIn

LinkedIn allows the project to network with individuals and organizations within the networking/Satcom/telecommunication industries/ecosystems and beyond, share crucial information about project activities, and stay up to date on the latest developments in the field. The [LinkedIn page](#) has gathered **419 followers** so far. Similarly to Twitter/X, the LinkedIn account is mostly used to share the latest progress of the project, echoing key promotional messages from the project website and sharing relevant news from the project’s partners, pertinent projects and the European Commission – but also via re-posting into relevant groups.

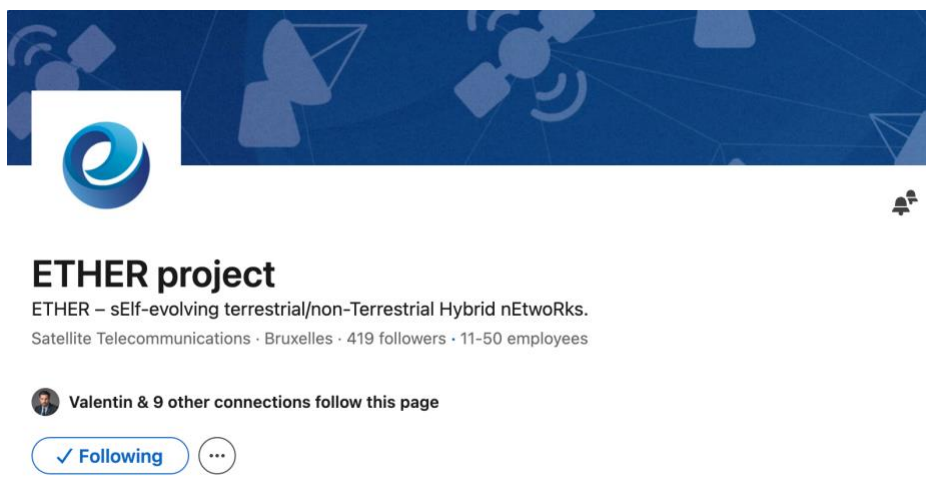


Figure 6: Screenshot of the ETHER LinkedIn profile

2.1.2.3 YouTube

ETHER has also created an [account on YouTube](#), one of the leading video-sharing platforms. This channel has been opened in the early project stages to disseminate the first project video. Subsequently, a video has also been created to illustrate ETHER use cases on *Advancing Radio Access Networking* to describe the application of pilot developments. The consortium plans on creating more video content for the project to explain the technological innovations in more detail for a wider set of audiences, and to echo content on X, LinkedIn, and in-person events. This will be used as an opportunity or means to generate a stronger virtual engagement with the project stakeholders. At the time of writing, the channel generated **135 views**.

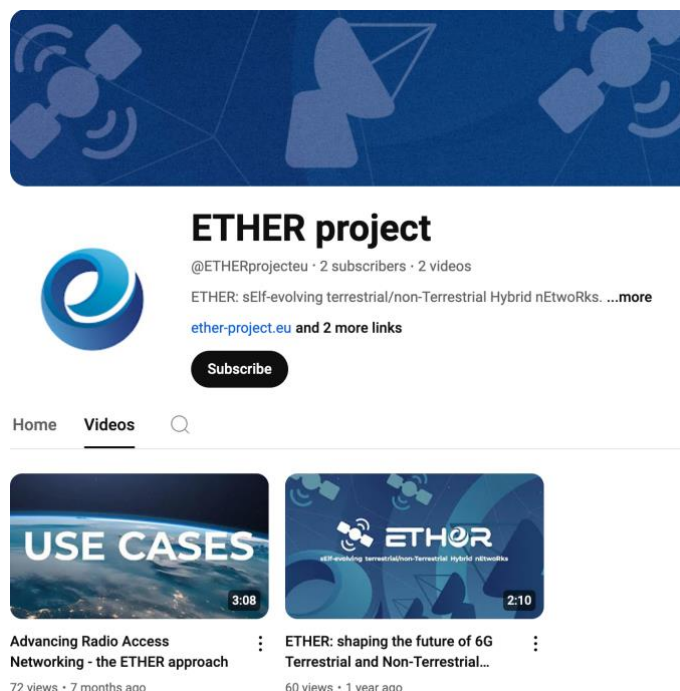


Figure 7: ETHER YouTube Channel – @ETHERprojecteu

2.1.3 Newsletters and newsflashes



sElf-evolving terrestrial/non-Terrestrial Hybrid nEtwoRks

ETHER will develop solutions for a Unified Radio Access Network (RAN) and for the energy-efficient, AI-enabled resource management across the terrestrial, aerial and space domains, while creating the business plans driving future investments in the area.

Have a look below about the various activities we have completed over the past months and [stay tuned](#) for the next period of action!

Latest news



ETHER kicks off

On January 19-20, 2023, the activities of the newly funded EU Smart Network Services (SNS) project ETHER kicked off in Luxembourg.

[Read more](#)



ETHER's participation at 6G Summit EuCNC

One of the most anticipated telecommunications events of the year is the EuCNC & 6G Summit.

[Read more](#)

Figure 8: Screenshot from an ETHER Newsletter

1 newsletter has been edited and distributed to stakeholders through ETHER's MailerLite account, as well as made available on the project website. So far, **13 stakeholders have subscribed** to receive ETHER's bi-annual newsletters. In terms of content and further analysis of the communication efficiency:

- The 1st newsletter (October 2023) was sent to 11 subscribers (64% opens/18% clicks) introduced the project's vision, objectives and consortium members through the project video, covered highlights from the first 9 months of the project's activities (in particular, those connected to events) and promotion of future events.
- The 2nd newsletter is to be published in M19.

Furthermore, to highlight significant project activities in a more *ad hoc* fashion, newsflashes are also issued. So far, **1 newsflash** was published to put a spotlight on a new video illustrating the various use cases of the project.



sElf-evolving terrestrial/non-Terrestrial Hybrid nEtworks

Welcome to the ETHER project newsflash. ETHER will develop solutions for a Unified Radio Access Network (RAN) and for the energy-efficient, AI-enabled resource management across the terrestrial, aerial and space domains, while creating the business plans driving future investments in the area.

As we wrap up a year of new beginnings, commitments and challenges, we're excited for what lies ahead.

Learn more about the ETHER technology and stay tuned to our activities and progress.

Discover more!

ETHER project advancing Radio Access Networking and its validation in 3 pilot cases

ETHER project is going to bring about advancements in Radio Access Networking and Networking in 6G communication networks and these advancements will be validated across 3 of its use cases.

Watch this short video featuring ETHER's coordinator Dr. Konstantinos Ntontin, *University of Luxembourg* and Dr. Rita Santiago, *Ubiwhere* (a use case partner in ETHER project), to understand what these advancements are, and what are the 3 use-case scenarios of the ETHER project.



Figure 9: Screenshot of an ETHER Newsflash

2.1.4 Publications

ETHER’s partners have been active in submitting scientific papers to conference publications and scientific journals: within the first half of the project, **28 papers** have been produced in open access. The papers are made available on the project’s website in a [dedicated section](#). The list below details the publications that are confirmed to have been published up until and including M18 (until 30 June 2024).

Table 1: List of ETHER publications

Title	Authors	Conference or Publication
Publications 2023		
Analysis of Age of Information in Dual Updating Systems	Z. Chen et al.	IEEE Transactions on Wireless Communications

Title	Authors	Conference or Publication
Scheduling Policies for AoI Minimization With Timely Throughput Constraints	E. Fountoulakis, T. Charalambous, A. Ephremides and N. Pappas	IEEE Transactions on Communications
Semantic Filtering and Source Coding in Distributed Wireless Monitoring Systems	P. Agheli, N. Pappas and M. Kountouris	IEEE Transactions on Communications
Semantics-Aware Active Fault Detection in Status Updating Systems	G. Stamatakis, N. Pappas, A. Fragkiadakis, N. Petroulakis and A. Traganitis	IEEE Open Journal of the Communications Society
Short-Packet Communication Over a Two-User Rayleigh Fading Z-Interference Channel: From Stability Region to the Age of Information	J. D. Kumar, P. Mohapatra and N. Pappas	IEEE Open Journal of the Communications Society
Towards Natively Intelligent Semantic Communications and Networking	S. E. Trevlakis, N. Pappas and A.-A. Boulogeorgos	IEEE Open Journal of the Communications Society
Adaptive Gradient Methods For Over-the-Air Federated Learning	C. Wang, Z. Chen, H. H. Yang and N. Pappas	2023 IEEE 24 th International Workshop on Signal Processing Advances in Wireless Communications (SPAWC)
Age of Information Under Frame Slotted ALOHA in Random Access Networks	Z. Yue, H. H. Yang, M. Zhang and N. Pappas	2023 IEEE International Symposium on Information Theory (ISIT)
Age of Information Under Frame Slotted ALOHA-Based Status Updating Protocol	Z. Yue, H. H. Yang, M. Zhang, N. Pappas	2023 IEEE International Symposium on Information Theory (ISIT)
Age of Information in Locally Adaptive Frame Slotted ALOHA	Z. Yue, H. H. Yang, M. Zhang and N. Pappas	2023 21 st International Symposium on Modeling and Optimization in Mobile, Ad Hoc, and Wireless Networks (WiOpt)
Age of Information with On-Off Service	Sinha, P. D. Mankar, N. Pappas and H. S. Dhillon	2023 IEEE Information Theory Workshop (ITW)
Analysis of the Age of Information in Age-Threshold Slotted ALOHA	H. H. Yang, N. Pappas, T. Q. S. Quek and M. Haenggi	2023 21 st International Symposium on Modeling and Optimization in Mobile, Ad Hoc, and Wireless Networks (WiOpt)
AoI Minimization with Timely-Throughput Constraints over Time-Correlated Wireless Channels	E. Fountoulakis, T. Charalambous, A. Ephremides and N. Pappas	ICC 2023 – IEEE International Conference on Communications
Distortion Minimization with Age of Information and Cost Constraints	J. S, N. Pappas and R. V. Bhat	2023 21 st International Symposium on Modeling and Optimization in Mobile, Ad Hoc, and Wireless Networks (WiOpt)
Goal-Oriented Transport Layer Protocols for Wireless Control	P. Kutsevol, O. Ayan, N. Pappas and W. Kellerer	2023 20 th Annual IEEE International Conference on Sensing, Communication, and Networking (SECON),

Title	Authors	Conference or Publication
Value of Information and Timing-aware Scheduling for Federated Learning	M. A. Khan, H. H. Yang, Z. Chen, A. Iera and N. Pappas	2023 IEEE Conference on Standards for Communications and Networking (CSCN)
Network slicing vs. network neutrality – is consent possible?	L. Tomaszewski, R. Kołakowski	19th International Conference on Artificial Intelligence Applications and Innovations (IFIP AIAI 2023)
Mobile Services for Smart Agriculture and Forestry, Biodiversity Monitoring, and Water Management: Challenges for 5G/6G Networks	L. Tomaszewski, R. Kołakowski	MDPI Telecom
Advanced Air Mobility and evolution of mobile networks	L. Tomaszewski, R. Kołakowski	MDPI Drones special issue on AAM
An Optimized Medium-Transparent MAC Protocol for Multi-service FIWI 5G Transport Networks	G.Kalfas, M. Gatzianas, D.Palianopoulos,A. Mesodiakaki,C. Vagionas,R.Maximidis, A.Miliou, N. Pleros	IEEE Globecom 2023
ETHER: Energy- and Cost-Efficient Framework for Seamless Connectivity over the Integrated Terrestrial and Non-terrestrial 6G Networks	L. Tomaszewski, R. Kołakowski, Robert, A. Mesodiakaki, K. Ntontin, A Fiore, M. Mosahebfard, S. Watts, P. Harris, C.-K. Lin, A. R. Santiago, F. Lazarakis, S. Chatzinotas	19 th International Conference on Artificial Intelligence Applications and Innovations (IFIP AIAI 2023)
Publications 2024		
Real-time Reconstruction of Markov Sources and Remote Actuation over Wireless Channels	M. Salimnejad, M. Kountouris, and N. Pappas	2023 IEEE International Conference on Communications Workshops (ICC Workshops)
Flexible Optical Circuit Switched Network Architecture based on Tunable SFP+ Transceivers for Reconfigurable Low-Latency 5G/6G Networks	G. Michail, M. Vargemidou, C. Vagionas, M. Gatzianas, G. Kalfas, R. Maximidis, A. Mesodiakaki et al.	7 th Panhellenic Conference on Electronics and Telecommunications (PACET 2024)
ETHER: A 6G Architectural Framework for 3D Multi-Layered Networks	K. Ntontin, L. Tomaszewski, J. A. Ruiz-de-Azua, A. Cárdenas, R. Pueyo Centelles, C.-K. Lin, A. Mesodiakaki et al	IEEE Wireless Communications and Networking Conference (WCNC 2024)
Hierarchical Deep Reinforcement Learning-based Load Balancing Algorithm for Multi-domain Software-Defined Networks	Robert Kołakowski, Sławomir Kukliński, Lechosław Tomaszewski	IFIP/IEEE Networking 2024
On 6G-enabled SDN-based mobile network User Plane with DRL-based Traffic Engineering	Robert Kołakowski, Lechoslaw Tomaszewski, Sławomir Kukliński	20th International Conference on Artificial Intelligence Applications and Innovations (IFIP AIAI 2024)
On the efficient architecture for 6G System	Lechosław Tomaszewski, Robert Kołakowski	20th International Conference on Artificial Intelligence Applications and Innovations (IFIP AIAI 2024)

Title	Authors	Conference or Publication
Online Energy-efficient Resource Allocation in Integrated Terrestrial and Satellite 6G Networks	A. Mesodiakaki, M. Gatzianas, C. Bratsoudis, G. Kalfas, C. Vagionas, R. Maximidis, A. Antonopoulos, N. Pleros, A. Miliou	IEEE ICC 2024

2.1.5 Promotional materials

As anticipated in D6.1, WP6 also planned and created a wide range of promotional online and offline items in support of ETHER’s communication and dissemination. These materials serve to document and communicate the progress, findings, and outcomes of the project and contribute to the dissemination of knowledge, providing valuable insights to stakeholders and handy overviews for the wider community. Here below, a breakdown of all such items generated in the first half of the project.

2.1.5.1 Print materials

At the start of the project, a postcard was developed with a key description and the main technological solutions proposed by the project. These can be used at in-person events for a concise and easy way to convey the aim and content of ETHER.

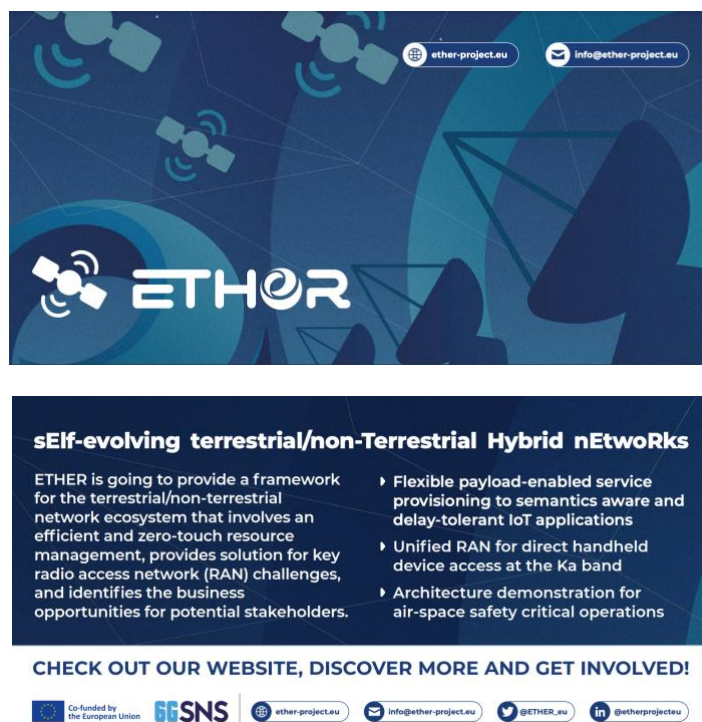


Figure 10: Image of the ETHER promotional postcard

In preparation of upcoming events in late 2024 with the opportunity to showcase the project, a roll-up will be created to support the visual presence at conferences.

2.1.5.2 Videos

As touched upon in D6.1, the **first project video** (entitled “*ETHER: Shaping the Future of 6G Terrestrial and Non-Terrestrial Network Technologies*”) was shot, edited and published on the project website, YouTube and social media channels in May 2023. The footage contained in the piece was captured at ETSI Conference 2023 and features Project Coordinator Konstantinos Ntontin, talking about ETHER’s ambitions and activities on creating a unified and integrated hybrid network of terrestrial and non-terrestrial networks. In the second half of the video, a shorter statement from project partner Monique Calisti (Martel) is also featured, bringing the perspective of consortium participants and underlining the importance of the envisioned activities for the field of telecommunications at large, through the synergy with the other projects of the SNS JU initiative. At the time of writing, the video counts over **60 views**.



Figure 11: Screenshot of the video “*ETHER: Shaping the Future of 6G Terrestrial and Non-Terrestrial Network Technologies*”

In addition to a descriptive video with the overview of the project, a **second video** was produced to highlight the three use cases that demonstrate the deployment of ETHER’s technical advancements. The video is titled “*Advancing Radio Access Networking – the ETHER Approach*” and features Use Case Partner Rita Santiago from Ubiwhere describing the three use cases, as well as Project Coordinator Konstantinos Ntontin elaborating how the use cases are in fact engendering a number of advancements for Radio Access Networking (RAN). This video has garnered **75 views** at the time of drafting this report.



Figure 12: Screenshot of the video
"Advancing Radio Access Networking – the ETHER Approach"

EVENTS

2.1.6 Event organisation

In fulfilment of the plan outlined in the deliverable D6.1, ETHER's partners **organised 2 workshops**, both at the annual gatherings of the EuCNC & 6G Summit, in [2023](#) (Gothenburg, Sweden) and [2024](#) (Antwerp, Belgium) respectively.

- **EuCNC & 6G Summit 2023:** ETHER co-organised a workshop in collaboration with [6G-NTN](#), [6G-SANDBOX Project](#), and [5G-STARDUST](#) titled "[Aligning European NTN Convergence and Integration](#)" session, which provided an overview on how the various projects can all contribute to a coherent strategy to achieve NTN/TN convergence in Europe.
- **EuCNC & 6G Summit 2024:** ETHER co-organised/participated the following workshops:

"[Architectural Considerations Enabling the IMT 2030 Framework by European 6G R&D Activities](#)". ETHER alongside 6G-NTN, 5G-STARDUST, and 6G-SANDBOX, participated in this workshop and presented a consolidated overview focused on enabling ubiquitous connectivity for the unconnected, addressing key architectural considerations for future networks. Furthermore, ETHER alongside 6G-NTN, 5G-STARDUST, and FLEXSCALE presented a consolidated overview focused on sustainable massive connectivity, driven by one of its examined use cases that focuses on the massive facilitation of IoT devices through LEO satellites.

"The 6G series workshop by Hexa-X-II". ETHER participated in this workshop and presented where it presented the ETHER architectural vision for 6G unified networks.

"Non-Terrestrial Networks and Terrestrial Networks unification – from Vision to Reality". This workshop was a continuation of the relevant workshop of EuCNC & 6G Summit 2023, where ETHER alongside 6G-NTN and 5G-STARDUST presented its vision about the 6G unified architecture, driven by its use cases, and also the demonstration activities planned for them.

“EU Collaborative Research & Innovation Focal Points in the SNS JU”. In this workshop ETHER presented its proposed architectural framework in the corresponding workshop.

2.1.7 Event participation

ETHER’s partners have attended or participated in **26 external events** so far, giving keynote presentations and promoting the projects goals and achievements. The table here below summarises the events attended. These participations have been reported in the [news section](#) and the [events calendar](#) of the project’s website and have been promoted through the social media channels and newsletters.

Table 2: List of events attended by ETHER partners

Event	Date and location	Dissemination activity	Target stakeholder
ETSI Research conference	Nice, 6-8 Feb 2023	conference	miscellaneous
6G SNS Webinar series	Online, 6 Mar 2023	webinar	miscellaneous
Mobile World Congress 2023	Barcelona, 27 February 2023-2 Mar 2023	conference	miscellaneous
EuCNC 2023	Gothenburg, Sweden, 6-9 Jun 2023	conference	miscellaneous
Total Telecom Congress 2023	Amsterdam, Netherlands, 21-22 Nov 2023	conference	industry stakeholders (companies)
IEEE WCNC 2024 Workshop	21-24 Apr 2024, Dubai	conference	academic (researchers/scientists)
IEEE ICASSP 2024 Workshop	14-19 Apr 2024, Seoul, South Korea	conference	academic (researchers/scientists)
IEEE SPAWC 2023 Special Session on Timely and Private Machine Learning over Networks	25-28 Sep 2023, Shanghai, China	conference	miscellaneous
IEEE SECON 2023 Workshop on Distributed, Private, and Robust Machine Learning over Networks	11-14 Sep 2023, Madrid, Spain	conference	miscellaneous
IEEE ICASSP 2023 Workshop on Timely and Private Machine Learning over Networks	4-10 Jun 2023, Rhodes, Greece	conference	miscellaneous

Event	Date and location	Dissemination activity	Target stakeholder
IEEE ICC 2023 Workshop on Beyond URLLC: Research Trends and Open Challenges in Real-Time IoT toward 6G (BUW-6G)	28 May – 1 Jun 2023, Rome, Italy	conference	miscellaneous
IEEE Globecom 2023	4-8 Dec 2023, Kuala Lumpur	conference	miscellaneous
MWC 2024	26-29 Feb 2024, Barcelona, Spain	conference	miscellaneous
ETSI Research Conference 2024	3-4 April 2024	conference	miscellaneous
EuCNC & 6G Summit 2024	3-6 Jun 2024, Antwerp, Belgium	conference	miscellaneous
IEEE INFOCOM 2024 Workshop	20-23 May 2024, Vancouver, Canada	conference	academic (researchers/scientists)
IFIP AIAI 2023	14-17 Jun 2023, León, Spain	conference	academic (researchers/scientists)
11th FOKUS FUSECO Forum	14-15 Sep 2023, Berlin, Germany	conference	miscellaneous
IFIP/IEEE Networking 2024	3-6 June 2024, Thessaloniki, Greece	conference	academic (researchers/scientists)
Digital Transformation World	18-20 June 2024, Copenhagen, Denmark	conference	miscellaneous
IFIP AIAI 2024	27-30 June 2024, Corfu, Greece	conference	academic (researchers/scientists)
SSSIF 2024	20-22 February 2024, Malaga, Spain	conference	miscellaneous
ETSI NTN Conference 2024	3-4 April 2024, Sophia Antipolis, France	conference	miscellaneous
43rd AIAA/IEEE Digital Avionics Systems Conference (DASC 2024)	Oct. 2024	conference	miscellaneous
IEEE ICC 2024	9-13 Jun 2024, Denver, CO	conference	miscellaneous
Online lecture Next Generation Systems and Network	29 May 2024, online	webinar	academic (researchers/scientists)

PRESS RELEASES AND PRESS CLIPPINGS

To date, **2 press releases** were issued in conjunction with major announcements, one of which was the [project kick-off meeting](#) – published on the official website and effectively disseminated to specific media outlets through the [Prowly](#) tool – as detailed in D6.1. The [other press release](#) details how ETHER will be contributing with its own framework to a groundbreaking constellation of satellites offering 5G IoT connectivity to 25 million people in European rural areas through its consortium partner Sateliot.

Task 6.1 intends to increase releases in the second half of the project, to boost the envisioned announcements for events organised and participated in. All press releases will continue to be made available on the [dedicated section of the project's website](#).

Furthermore, ETHER features in external publications, have also been made available in the [“Press clipping”](#) section of the project's website. Currently, **2 press clippings** refer to an ETHER reference in the [SNS Journal 2023](#) and in Constellations of [Kratos Magazine](#).

COLLABORATIONS AND LIAISONS WITH OTHER INITIATIVES

2.1.8 Smart Networks and Services Joint Undertaking

As stated in D6.1, ETHER is a member of the Smart Networks and Services Joint Undertaking (SNS JU) under its Phase 1's Stream B (Research for Revolutionary Technology Advancement Towards 6G). This Public-Private Partnership aims to foster and advance industrial leadership in Europe regarding 5G and 6G networks and services. ETHER's involvement in its Stream B cluster is to focus on novel technologies that are expected to be adopted in commercial networks in the mid-to-long term with special attention to novel 6G system architectures, advanced wireless and optical communication technologies, advances in Non-Terrestrial Networks, and secure ultra-reliable and low-latency communications (URLLC) applications.

As a member, ETHER attends monthly **SNS JU Communication Task Force Meetings** involving representatives of all fellow Stream B projects – and beyond – where information about the respective and joint/common activities is exchanged and orchestrated, which has led – and is continuously leading – to active collaboration with the other projects.

Let us break down some key concrete results of this synergy, for the reporting period:

- ETHER is featured among the SNS projects on the [6G SNS website](#) and communication materials, **and it is actively contributing to and echoing SNS JU social media efforts.**
- The participation to the **SNS Lunchtime Webinar** (February 2023), which introduced the SNS projects.
- The participation to the **“Aligning European NTN Convergence and Integration” Workshop** at EuCNC & 6G Summit (6-9 June 2023, Gothenburg, Sweden) alongside SNS JU projects 6G-NTN, 5G-STARBUCK, and 6G-SANDBOX.
- Direct support of fellow 6G4Society project's Citizen Survey on the public acceptance of 6G networks).

- Promotion of **SNS Journal 2023 and 2024** via social media, website and newsletter (upcoming July 2024 issue, in the case of the latter).
- Participation to the Eurescom and ESA-led workshop for this year's edition of EuCNC & 6G Summit (3-6 June 2024, Antwerp, Belgium), entitled "**Non-Terrestrial Networks and Terrestrial Networks unification – from Vision to Reality**"; the presentation held at this event, being a joint effort involving 6G-NTN, 5G-STARBUCK, and 6G-SANDBOX.

On the same day, ETHER was also featured in the EuCNC workshop titled "**Architectural Considerations Enabling the IMT 2030 Framework by European 6G R&D Activities**" as part of another synergic presentation on "Ubiquitous Connectivity for the Unconnected", crafted once again in collaboration with 6G-NTN, 5G-STARBUCK and 6G-SANDBOX. Furthermore, ETHER alongside 6G-NTN, 5G-STARBUCK, and FLEXSCALE presented a consolidated overview focused on sustainable massive connectivity for this particular workshop, driven by one of its examined use cases that focuses on the massive facilitation of IoT devices through LEO satellites. Furthermore, ETHER participated in the workshop "The 6G series workshop by Hexa-X-II". where it presented the ETHER architectural vision for 6G unified networks and the "EU Collaborative Research & Innovation Focal Points in the SNS JU" workshop, where it presented its proposed architectural framework.

2.1.9 Other projects and collaborations

In this section we offer instead a summary of the other initiatives the project has connected and collaborated with – and of their respective mission – with some updates from what previously presented in D6.1.

The 6G Smart Networks and Services Industry Association (6G-IA) is the voice of European Industry and Research for next generation networks and services. Its primary objective is to contribute to Europe's leadership on 5G, 5G evolution and SNS/6G research. While the European Commission represents its public side, the 6G-IA represents the private side in both the 5G Public Private Partnership (5G-PPP) and SNS JU. The 6G-IA brings together a global industry community of telecoms & digital actors, such as operators, manufacturers, research institutes, universities, verticals, SMEs and ICT associations.

One6G is a membership organization focused on evolving, testing and promoting next generation cellular and wireless technology-based communications solutions. By supporting global 6G research and standardization efforts, the goal is to accelerate its adoption and overall market penetration, while addressing societal and industry-driven needs for enhanced connected mobility. The shared network of the One 6G initiative, alongside the knowledge base represents additional inputs for the project (both in technical and business-related manners), and a chance to create broader awareness amongst ETHER's key stakeholders.

6G-NTN is a 6G SNS-funded project that aims to design and validate NTN's key technical, regulatory, and standardisation enablers for the integration of TN and NTN components into 6G, focusing on multidimensional network infrastructure, multi-constraint RANs, and multi-user terminals. As dissemination and communications in the project are also run by WP6 leader Martel, there's a direct line for collaboration and mutual support, as materialised in joint workshops and showcase activities.

5G-STARBUCK is a 6G SNS-funded project that aims at developing solutions for a fully integrated 5G-NTN autonomous system with novel self-adapting end-to-end connectivity

models for enabling ubiquitous radio access. The connection with ETHER is also of immediate nature due to Martel being partner in the project, thus resulting in the involving of ETHER in workshops and showcases' co-organisation.

6G-SANDBOX is a 6G SNS-funded project bringing a complete and modular facility for the European experimentation ecosystem (in line and under the directions set by SNS JU), which is expected to support for the next decade technology and research validation processes needed in the pathway towards 6G. Common themes and partners connected us with it over the course of the first half of the project, in a fruitful collaboration which made 6G-SANDBOX a regular contributor of common presentations and workshops, as stated above in the section.

6G-XR is a 6G SNS-funded project on a mission to strengthen European leadership in 6G technologies by enabling next-generation XR services and infrastructures that will provide beyond-state-of-the-art capabilities towards the 6G era. Beyond the thematic/ecosystem connection, the shared Martel communication and dissemination leadership between 6G-XR and ETHER greatly facilitates cross-posting and mutual support (which started within the reporting period) as highlighted above.

6G4Society is a 6G SNS-funded project aiming to ensure that societal and sustainable values are properly embedded into the development of 6G technology, bringing a sociological perspective to technological development. Kickstarted later on in the reporting period, the project connects to ETHER's efforts not only by bringing to the mix another essential angle, but also as its communication is led by Digital For Planet, which Martel has a direct line with, adding to the already extensive "echo chamber" system in place.

IMPACT ASSESSMENT

The consortium has kept a close eye on the KPIs set at the beginning of the project, to monitor the Dissemination & Communication Results. The table below offers details on the currently achieved and planned KPIs.

Table 3: List of dissemination and communication KPIs and their current status

Tool/Activity	Indicators	Target (M36)	Status at M18
Website	Total visits (yearly)	>1500	2016 (M1-M12) 1507 (M13-M18)
Social media	# followers (by project end) on X	300	167
	# followers (by project end) on LinkedIn	150	419
	#views on YouTube channel (average per video)	60	68
Press releases	#published press releases (by project end)	≥ 3	2
Newsletters	#newsletters sent out	8	1
Videos	#produced videos	≥ 4	2

Tool/Activity	Indicators	Target (M36)	Status at M18
Publications	#peer-reviewed publications in journals, conferences and workshops	>10	25
Events (attendance, incl. online events)	#attended events (by project end)	> 8	26
Events (organisation)	#organised events (by project end) #participants in each event	≥ 2 60+	2 20+

PLANNED DISSEMINATION ACTIVITIES

ETHER's dissemination and communication plan will continue to be coordinated by Martel, as WP6, T6.1 and T6.2 leader, with the contribution and support of all partners. Activities will be run both at consortium level and at partners' level, based on each organisation expertise, existing network and relevant exploitation plan. At the core of the work to be conducted are, of course, organisation of and participation to events, and publications' submissions.

2.1.10 Events

At the time of writing, WP6 is organising a potential session and/or booth at the co-located IEEE PIMRC and/or One6G Summit in Valencia (altogether 2-6 September 2024). Moreover, similar plans are devised for FOKUS FUSECO Forum, which will be held in Berlin, Germany in November 2024. The envisioned showcase would be project-branded, but the plan would be for it to also carry promotional material from the fellow SNS projects 6G-NTN and 5G-STARDUST – given that WP6 leader Martel is also running dissemination and communication in those projects, granting easy access to such material for the representatives at work on ETHER. Follow-up participation to the 2025 editions of MWC, ETSI Conference and EuCNC will naturally be in the project's sights (the latter in particular, in terms of workshop proposals' submissions) with detailed plans to be formulated in the early months of ETHER's second half.

The table below presents a list of events for which participation in the second half of the project has been planned, already secured, or that will be in ETHER's radar for communication and dissemination activities:

Table 4: List of targeted event participation (M19-M36)

Event	Date	Location	Proposed Format
IEEE PIMRC 2024	2–5 September 2024	Spain	Presentation session
IEEE GLOBECOM 2024	8-12 December 2024	South Africa	Presentation session

Event	Date	Location	Proposed Format
One6G Summit	22-6 September 2024	Spain	Working Group 2 contribution
FOKUS FUSECO Forum	7-8 November 2024	Germany	Booth and presentation session
ETSI SNS4SNS	12-14 November 2024	France	Presentation and poster session
12th Advanced Satellite Multi-media Systems Conference + 18th Signal Processing for Space Communications Workshop	26-28 February 2025	Spain	TBD
Mobile World Congress 2025	3-6 March 2025	Spain	TBD
IEEE WCNC 2025	24-27 March 2025	Italy	TBD
IEEE ICC 2025	8-14 June 2025	Canada	Presentation session
IEEE GLOBECOM 2025	TBD	TBD	Presentation session
EuCNC and 6GSummit 2025	3-6 June 2025	Poland	TBD

2.1.11 Publications

The table below presents instead the list of publications (Journals and Conferences) planned or targeted for the second half of the project:

Table 5: List of pending publications (M19-M36)

Publication	Submission to
Intelligent Message Routing and Optimization for Aircraft in Terrestrial and Non-Terrestrial Networks	43 rd AIAA/IEEE Digital Avionics Systems Conference (DASC 2024)
Graph-Based Handover for Future Aeronautical 6G Integrated Terrestrial and Non-Terrestrial Networks	43 rd AIAA/IEEE Digital Avionics Systems Conference (DASC 2024)
Software-Defined High Altitude Platform Relays in Integrated Terrestrial-HAP-Satellite Networks	43 rd AIAA/IEEE Digital Avionics Systems Conference (DASC 2024)
Software-Defined End-to-End Aeronautical Data Flows Management	43 rd AIAA/IEEE Digital Avionics Systems Conference (DASC 2024)
SDN/NFV-based satellite networks: Challenges and developments	International Astronautical Congress (IAC 2024)

<p>Integrating geographical information systems in management and orchestration of satellites constellation to achieve a spatial-aware 6G Non-Terrestrial Networks architecture</p>	<p>International Astronautical Congress (IAC 2024)</p>
<p>Extending the ETSI NFV Architectural Framework to Support Clusters of Satellites towards 6G Non-Terrestrial Networks</p>	<p>IEEE Open Journal of the Communications Society</p>

3 CONCLUSIONS

The document at hand reported on communication and dissemination conducted in the first half of the ETHER project, with a comparison of the progress against the set KPIs, in addition to presenting the plan for the second half of the project.

Having advanced on all communication and dissemination-related KPIs (especially in terms of events), the project consortium is satisfied with the results achieved by WP6. The various types of promotional activities described in this document will continue to support the successful promotion of the work performed by the project consortium and uptake of its results, benefiting project stakeholders and the extended ETHER and SNS JU communities.

To summarise a few key points that would be at the core of our upcoming actions to further boost outreach, as emerged by the complete review of activities conducted through this document:

- the consortium will strive to keep the steady pace of events participation and organisation;
- print communication material will be updated, as needed, to go hand-in-hand with that;
- an increase in press releases and video output is needed.