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KM3NeT-INFRADEV2 Dissemination and Exploitation Plan

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ABSTRACT

This document presents how the KM3NeT-INFRADEV2 project's results and outputs can be widely disseminated to appropriate target groups communities, such as scientists, policy-makers, general public and other stakeholders. It also presents the different steps of the project's results and outputs communication throughout its lifetime, and specifically at key milestones. This document is meant to be dynamic and will be updated and adapted according to the progress and evolution of the project.

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II. DELIVERY SLIP

	Name	Partner and WP	Date
From	Victoria Ciarlet Thaon	CNRS, WP1	12/05/2023
Author(s)	Victoria Ciarlet Thaon	CNRS, WP1	
Reviewed by	PMB and KM3NeT OC		26/06/2023
Approved by	Paschal Coyle	CNRS, WP1	30/06/2023

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5	26/06/2023	Comments and corrections from the KM3NeT OC	Marco Circella, INFN and Els de Wolf, NWO-I

IV. APPLICATION AREA

This document is a formal deliverable of the Grant Agreement (GA) of the project, applicable to all members of the KM3NeT – INFRADEV2 project, beneficiaries and third parties, as well as its collaborating projects.

V. TERMINOLOGY

ARCA	Astroparticle Research with Cosmics in the Abyss
CA	Consortium Agreement
CC	KM3NeT Conference Committee
CSA	Coordination and Support Action
DMP	Data Management Plan
EMSO	European Multidisciplinary Seafloor and water column Observatory
EOSC	European Open Science Cloud
EPM	European Project Manager
ERA	European Research Area
ESCAPE	The European Science Cluster of Astronomy & Particle Physics ESFRI Research Infrastructure
ESFRI	European Strategy Forum on Research Infrastructure
EU	European Union
FAIR	Findability, Accessibility, Interoperability and Reusability
GA	Grant Agreement
HTC	High-Throughput Computing
ICT	Information and Communication Technologies
IPR	Intellectual Property Rights
IVOA	International Virtual Observatory Alliance
KER	Key Exploitable Results
KM3NeT	Cubic Kilometer (km3) Neutrino Telescope
OC	KM3NeT Outreach and Communication Committee
ORCA	Oscillation Research with Cosmics in the Abyss
PC	KM3NeT Publication Committee

PMB	Project Management Board
RAMS	Reliability, Availability, Maintainability and Safety
RI	Research Infrastructure
VHE	Very-High-Energy
VODF	Very-high-energy Open Data Format
WP	Work Package

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IX. PROJECT SUMMARY

The Kilometre Cube Neutrino Telescope (KM3NeT) is a large Research Infrastructure (RI) comprising a network of deep-sea neutrino telescopes in the Mediterranean Sea with user ports for Earth and sea sciences instrumentation. During the EU-funded Design Study (2006-2020) and Preparatory Phase (2008-2012), a cost-effective technology was developed, deep-sea sites were selected and the Collaboration was formed. This proposal constitutes a second INFRADEV dedicated to KM3NeT in order to implement an efficient framework for mass production of KM3NeT components, accelerate completion of its construction and provide a sustainable solution for the operation of the RI during ten or more years. Following the appearance of KM3NeT on the 2016 ESFRI Roadmap and in line with the recommendations of the Assessment Expert Group, this project addresses the Coordination and Support Actions (CSA) to prepare a legal entity for KM3NeT, accelerate its implementation, establish open access to the RI and ensure its sustainability by transforming activities with a negative impact on the environment and the evaluation of the Collaboration's socio-economic impact.

X. EXECUTIVE SUMMARY

The KM3NeT-INFRADEV2 Dissemination and Exploitation Plan intends to guide, in an evolving way, the development and implementation of communication, dissemination and exploitation activities throughout the duration of the project and after. This Plan aims to ensure that the project's results and outputs can be widely disseminated to the designated and appropriate target groups.

The document outlines the objectives and key priorities of these activities in order to ensure a proper dissemination of the results and outputs of the project as well as to support their exploitation by a broad range of actors. In this sense, the document also identifies target audiences, messages and channels that will be used in order to meet these priorities and deliver on the objectives set out.

The KM3NeT-INFRADEV2 Dissemination and Exploitation Plan is a cooperative effort, led by the CNRS, as WP1 coordinator, in close collaboration with the KM3NeT Outreach and Communication Committee (OC) and the researchers involved in the project. As a dynamic document, the Dissemination and Exploitation Plan is to be regularly updated according to the progress and needs of the project. The latest version will be published each time on the KM3NeT Collaboration website in order to ensure visibility of the actions planned and implemented.

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1. Introduction

The KM3NeT-INFRADEV2 Dissemination and Exploitation Plan was conceived as an evolving document for the use of all the partners involved in the project, during its lifetime and after. It establishes the basis of a successful common communication, dissemination and exploitation strategy, by providing specific communication tools, identifying adapted activities and defining main target audiences. This strategy aims to promote the principal results and outputs of the INFRADEV2 project to key stakeholders, in order to create added-value among target communities and EU initiatives, within the framework of the KM3NeT Collaboration and at a European level.

Indeed, communication, dissemination and exploitation activities are an important part of the Horizon Europe programme, that all partners must take part in to promote exchanges, knowledge transfer and to participate in the construction of an innovative Europe. As a structuring project for astroparticles physics, collaborating with Earth and sea science communities, requiring high-level technological solutions and operating towards a sustainable future, the results produced by KM3NeT-INFRADEV2 have the potential to reach an important panel of actors at the international and European scales, within and beyond science.

In order to contribute to the objectives set by the European Commission and to reinforce the visibility of the project, INFRADEV2 benefits from the previous efforts made by the KM3NeT Collaboration. In particular, during the first INFRADEV project, an Outreach and Communication Strategic Plan was drafted and many outreach, communication and cooperation tools were set up in close collaboration with the KM3NeT Outreach and Communication Committee (OC)[1]. Therefore, the present Dissemination and Exploitation Plan aims to apply these materials to the actual project and in line with its own specificities, as well as to further develop and improve them to increase the reach of the KM3NeT experiment, regarding the objectives set in the INFRADEV2 project. Finally, the INFRADEV2 consortium will also work with the Conference Committee (CC) and the Publication Committee (PC) of the KM3NeT Collaboration for the management of conference and publication contributions**. Therefore, communication, dissemination and exploitation activities will be embedded in the outreach framework of the KM3NeT Collaboration**.

As a result of these features, activities carried out within INFRADEV2 are managed under a specific governance scheme:

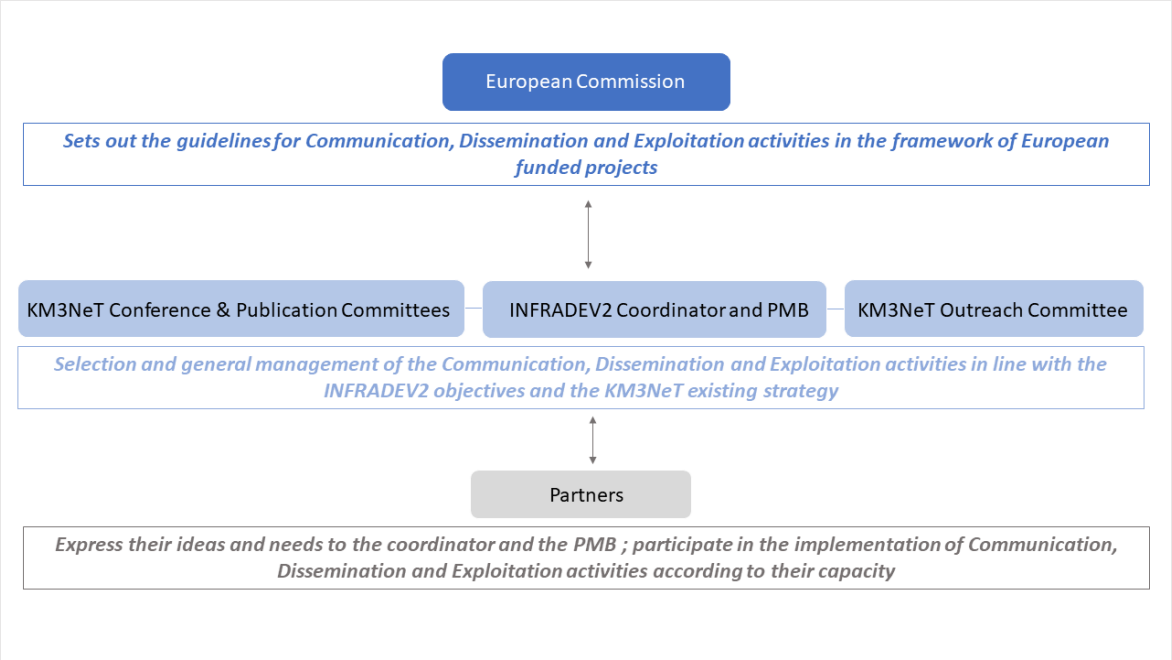
- According to the management set for the INFRADEV2 project itself[2], communication, dissemination and exploitation activities of INFRADEV2 will be monitored by the CNRS, as Coordinator of the project, with the approval of the Project Management Board (PMB) and in accordance with the EU obligations and recommendations. The European Project Manager (EPM) will be in charge of the follow-up of the actions.

[1] All documents are mentioned in the references listed at the end of the present document and are available on the KM3NeT Collaboration website at: https://www.km3net.org/km3net-infradev/project-outputs/

[2] The governance of the KM3NeT-INFRADEV2 project is detailed in the deliverable D1.1 – Kick-off Meeting Report, available on the KM3NeT Collaboration website: https://www.km3net.org/wp-content/uploads/2023/04/KM3NeT-INFRADEV2-WP1-D1.1-v.approved-2.pdf

- They will be selected and implemented in close association with the KM3NeT committees. The KM3NeT OC, CC and PC will be the final validators for any partnership-wide action. The Coordinator will be in charge of operating the relationship between the project actors and the Collaboration.
- All consortium members will participate, according to their capacity and in line with their own communication strategies.

Figure 1 : Governance of the Communication, Dissemination and Exploitation activities of the KM3NeT-INFRADEV2 project



The present Plan therefore presents the objectives, management and content of the foreseen communication, dissemination and exploitation activities of the KM3NeT-INFRADEV2 project. The first part is dedicated to the potential impacts and expected outcomes of the project in order to identify Key Exploitable Results (KER), specific target audiences and the priority goals of the strategy (2). The second part will address the issues related to communication, by defining the most adapted tools and activities to reach the objectives set in the first part (3). A third part will detail the objectives and strategy planned for dissemination to ensure the public disclosure and accessibility of INFRADEV2's results (4). Finally, possibilities for the further exploitation of the results and associated activities will be explored in a fourth part (5). **All the specific rules that apply to the production of content (material, conferences, publications, etc.) for communication, dissemination and exploitation are detailed in Annex 1, along with provisions regarding Intellectual Property Rights (IPR)**.

2. Expected outcomes and potential impacts of the KM3NeT-INFRADEV2 project

As a unique experiment in Europe, KM3NeT has a special position within the European and international context. The Outreach and Communication strategy of the Collaboration thus underlines some key aspects of the objectives and achievements set both in and beyond science. INFRADEV2 – as a continuity project – contributes to several of these priorities through its expected outcomes and impacts, which should be particularly addressed by the communication, dissemination and exploitation strategy of the project.

2.1. The place of KM3NeT in the European and international context

KM3NeT is one of the three existing very large volume neutrino telescopes in the world, along with the Baikal-GVD Experiment, installed in the depths of the freshwater lake Baikal in Russia, and IceCube, located in the ice of Antarctica. Being placed in two sites in the Mediterranean abyss, **KM3NeT is the only large telescope installed in these conditions in Europe and worldwide**. Indeed, KM3NeT is a unique multi-site deep-sea infrastructure, composed of two detectors: ARCA, anchored at a depth of 3 500m off the coast of Sicily (Italy), and ORCA, deployed offshore Toulon (France), at a depth of 2 500m. Both are permanently connected to a shore laboratory and power station to power-up the sensors, electronics and to allow high data-rate transmission. To ensure data acquisition and transfer, KM3NeT uses a specific computing model, of which the general concept consists of a hierarchical data processing system. KM3NeT follows an open-data access policy, based on reconstructed events including calibration, quality parameters and experimental uncertainties, software and documentation of how to analyse the data will be provided in due time. The infrastructures thus become optimal sites for installation of Earth and sea science nodes, allowing long-term and real-time access for oceanographic, geophysical and biological instrumentation deployed in deep sea. The KM3NeT deep-sea installations in France and in Italy already provide access to the Earth and sea science community, in particular through collaboration with the EMSO network. Another installation site is planned off the coast of Pylos (Greece), which will then be included in the final KM3NeT RI.

Because of this unique situation, KM3NeT requires **a high level of expertise in multiple fields**: science, engineering, technology, computing, administration… Therefore, it has an exceptional scientific and technological potential. Moreover, bringing together a large diversity of people, from more than 50 institutes, 15 countries and 4 continents, KM3NeT has the potential to **foster transnational exchanges as well as to strengthen the links between the academic, socio-economic and civil society spheres**. In fact, these links have been developed throughout the history of the project to the present day.

Because of this great potential and its strong history in Europe, **KM3NeT has received significant support from the European Union** (EU). For the 2006-2016 and 2016-2026 periods, the project was included in the ESFRI Roadmap for Research Infrastructures. It also benefited from different funding through European research and innovation programme, KM3NeT-

INFRADEV2 being the latest one. Thanks to this support, the KM3NeT Collaboration was able to set new goals, beyond science and technology. In particular, the first INFRADEV action was the opportunity to further develop **KM3NeT as a responsible and sustainable organisation**, by the agreement on its Code of Conduct and Ethical behaviour[3] and by setting up an internal Policy for Equality, Diversity and Inclusion as well as engaging in multiple eco-friendly initiatives.

2.2. KM3NeT Outreach and Communication Strategic Plan

The Collaboration adopted an Outreach and Communication Strategic Plan[4] to reinforce the visibility of the experiment and to highlight its objectives, results and potential. This Plan was also an opportunity to set guidelines for the management of relationships with key audiences and to inspire different communities. In this sense, this document outlines **specific communication themes and publics that should be targeted as priorities**.

Regarding **communication themes**:

- KM3NeT is to be presented as **"the next generation neutrino observatory"**[5], that will collect an unprecedented quantity of cosmic and atmospheric neutrinos, serve as an open observatory to a wide astrophysics and particle physics community and provide open access to the Earth and sea science community for real-time, continuous, long-term, high-frequency monitoring and observation of the deep-sea environment.
- KM3NeT's foundation is its **exceptional scientific potential**, by pushing both the low-energy and high-energy frontiers – where insight into some of the Universe's greatest mysteries may exist –, giving the resource to address the most perplexing questions in astrophysics and particle physics as well as to search for the sources of cosmic rays from our galaxy to the furthest reaches of the Universe and opening new possibilities for Earth and sea sciences.
- KM3NeT's potential for **technological innovation**, since KM3NeT has innovated new technologies for photo-detection, deep-sea technology, time-synchronisation over large distances and computing, that could have applications in other domains.
- **Diversity of people and competences**: People of many nationalities from across the globe are working for KM3NeT, with very diverse academic and professional background.
- **Inspiration and education**: KM3NeT trains future scientists, engineers and technicians, inspires school teachers for modern and up-to-date science education, motivates school students to pursue the study of science and, finally, inspires scientific awareness among citizens.

[3] KM3NeT Collaboration. (2019). *KM3NeT Code of Conduct and Ethical Behaviour*. Available at: https://www.km3net.org/wp-content/uploads/2019/06/KM3NeT_Code_of_Conduct_and_Ethical_behaviour-v20181023.pdf

[4] KM3NeT Collaboration. (2018). *The KM3NeT Outreach and Communication Strategic Plan*.

[5] *Ibid*, p.9.

These themes are to be communicated to a **wide range of different audiences**, in order the enhance the ability of KM3NeT to reach its objectives and the ensure the dissemination and exploitation of the results and impacts produced by the RI:

- **Governments and policy-makers** of KM3NeT stakeholders, potential new collaborators and associated collaborators, local communities hosting the telescopes sites and other international organisations that might benefit from the positive impact of KM3NeT and participate to the construction and running of the experiment.
- **The broader international scientific community**, including particle physics communities as well as Earth and sea scientists.
- **The civil society**, comprising the media, teachers and students as well as the general public.
- **The KM3NeT community:** students, postdocs, contractors' personnel, potential candidates and alumni.
- **Industry**.

According to these elements, the KM3NeT Collaboration has outlined **overarching key messages**, targeting all audience groups, to convey.

Table 1 : KM3NeT key communication messages

1	KM3NeT is a world leader in astroparticle and particle physics. This encompasses experimental research, engineering, data analysis techniques and computing.
2	Determination of the fundamental properties of the neutrino will have important implications on our understanding of the origin of the Universe, its matter/energy content and its ultimate fate.
3	The discovery of high-energy cosmic neutrinos opens a new window on the Universe, and will be a journey of discovery for the next decade and beyond.
4	To continue this journey of discovery, we need to enlarge the KM3NeT infrastructure. To build KM3NeT we push the boundaries of technology.
5	KM3NeT brings benefits to society. KM3NeT contributes to the human endeavour of acquiring knowledge and it has a strong positive impact on training future scientists and engineers, on driving innovation, on transferring knowledge and technology to society and industry, and on engaging citizens in the achievements of fundamental research.

6	KM3NeT is an open institution. KM3NeT's scientific results and data are available in open access and KM3NeT is committed to open innovation. KM3NeT is open to citizens and to the arts, humanities and other expressions of culture.

2.3. INFRADEV2 contributions and expected outcomes and impacts

As a continuity project, INFRADEV2's expected outcomes and impacts can strongly contribute to achieve the goals set in the Outreach and Communication Strategic Plan. Moreover, some advances made possible by the project can bring new communication themes, that should be addressed by the present plan.

Indeed, the INFRADEV2 project is divided in 5 work packages (WP), dedicated each to a specific issue for completing the full implementation of the KM3NeT RI. Therefore, **the first key communication message for the project is that INFRADEV2 is a decisive step towards the full implementation of the KM3NeT RI**. WP1, corresponding to the general coordination and communication strategy of the project, should not bring any added-value in terms of results. However, the rest of the WPs should have significant impact for the RI, that could be further disseminated and exploited by the entire KM3NeT Collaboration and its external partners. For each WP, a non-exhaustive list – depending on the progress of the project – of main results and impacts that should be given special attention for communication, dissemination and exploitation activities has been established:

- **WP2 – Prepare a Legal Entity**: WP2 aims to prepare a legal entity for the KM3NeT RI, by producing various legal reports. All WP2 deliverables are not intended for public release. The results of the work done are not likely to be disseminated, especially since the details discussed will be specific to KM3NeT. However, the creation and implementation of a specific legal entity will have a significant impact for the visibility of the RI at the European and international level as well as for the people involved in the Collaboration and its partners. Therefore, the creation of a legal entity for KM3NeT should be communicated among the KM3NeT Community, its funding agencies and partners, whether academic, industrial or financial. Particular attention will need to be paid to the members of the Collaboration and partners who wish to join, to ensure the operation of the RI, communicating on the changes brought by the creation of a legal entity, particularly in terms of governance, day-to-day management and funding.

- **WP3 – Accelerating Implementation**: The objective of WP3 is to reinforce the KM3NeT Project Office[6] to reach the objectives set by the KM3NeT mass production paradigm and guarantee the best possible efficiency of the detector during its lifetime, by recruiting a Procurement Officer to centralise the management of procurements and a R.A.M.S Officer to ensure the Reliability, Availability, Maintainability and Safety of the detector. By providing additional expertise in these fields, WP3 will largely contribute to accelerate the implementation of the KM3NeT RI as well as its

[6] See Annex 2: Organisation of the KM3NeT Collaboration.

accessibility for researchers and potential users. Some of the results produced contain sensitive information, that will not be made public. However, public results produced within WP3 should be first communicated and disseminated among the members of the KM3NeT Collaboration, particularly to ensure the use of a shared procurement management process. Results and impacts generated by R.A.M.S efforts should also be used for communication towards the Collaboration partners, so that the RI could attract a certain number of diversified actors. By participating in the construction of the detectors, WP3 contributes to presenting KM3NeT as a key-RI for sciences and technology.

- **WP4 – Data Management and Open Science**: WP4 aims to further develop KM3NeT Data Management and Open Science practices. By the end of the project, data management and open science platforms should be online and therefore ready to be exploited for scientific purposes. Moreover, KM3NeT data should fully contribute to a global multi-messenger alert system. Here, again, outputs first concern the KM3NeT Collaboration, its academic partners and the scientific communities. Regarding communication, WP4 confirms KM3NeT as an institution dedicated to open science, fully integrated into European and international networks and as a leading collaboration in astroparticle and particle physics regarding data analysis techniques and computing.

- **WP5 – Sustainability and socio-economic impact**: WP5 main impact will be to demonstrate KM3NeT as a role model for a RI with high sustainability standards and societal and environmental awareness. Outputs should underline the green measures taken by the Collaboration to limit its ecological impact as well as the positive impact of the RI regarding socio-economic issues, and especially regarding knowledge and technology transfer towards industrials. Results then should be widely disseminated among other RI and scientific collaboration to inspire them towards an eco-friendlier path. Also, the results of the socio-economic studies should be further exploited to participate in technology development as well as in the local development of the regions where the KM3NeT sites are located. Thus, WP5 will illustrate how KM3NeT can benefit to societies by generating regional economic development, stimulating industrial and technology innovation while actively participating in making research a sustainable sector.

Table 2 : INFRADEV2 expected main results and impacts, with associated target groups

WP & Field	Expected result or impact and associated message	Main target group(s)
INFRADEV2 Main message	INFRADEV2 strongly supports and is especially aimed at the full implementation of the KM3NeT RI. It is a decisive step towards the full implementation of the KM3NeT RI.	All

WP2 Internal governance & international visibility	The creation of an independent legal entity for the KM3NeT Research Infrastructure, in charge of the administrative, legal and financial management. The KM3NeT legal entity will be an independent structure, open to various partners and strongly embedded in European and international research networks.	KM3NeT community and external partners
WP3 Internal management & quality of the RI.	The KM3NeT RI has strong expertise in terms of equipment and maintenance, and therefore provides an available, reliable and safe access to all its partners. This reliability confirms KM3NeT as a world leader in astroparticle and particle physics, especially regarding engineering.	KM3NeT community and external partners
WP4 Internal functioning, Open institution, European and international dimension.	KM3NeT actively aims to provide high-quality open data products, that can be further exploited for the benefit of fundamental research. KM3NeT contributes deeply to the European Research Area's common efforts towards multi-instrument analyses and shared analysis techniques. KM3NeT implements high-quality data management for efficient and integrated use of European HTC infrastructures.	KM3NeT community, scientific communities, European and international networks
WP5 Sustainability	KM3NeT is a sustainable and eco- friendly RI, that is a role model in this area and that could inspire other international collaborations. Eco-responsible measures adopted can be transferred to others, especially in collaborations that involve the construction of very large facilities.	Other RI, scientific communities at European and international level, local societies and authorities
WP5 Socio-economic development & technology transfer	KM3NeT, while being a significant international collaboration, benefits to regional developments by providing work and soliciting industrial partners at the local level. KM3NeT contributes to innovation by adopting a strategy in favour of knowledge and technology transfer to industry. These impacts are long-term and will benefit to society throughout the lifetime of the KM3NeT project.	Industry, local societies and authorities

These outputs, related to the overarching key messages set by the KM3NeT Collaboration, should be especially targeted by the KM3NeT-INFRADEV2 communication, dissemination and exploitation plan. However, INFRADEV2 allowing significant advances in terms of sustainability, the results generated in this area will also be a focus point throughout the life of the project and beyond. Finally, although the results of the INFRADEV2 project are more relevant to the scientific, industrial and local communities, the communication and dissemination efforts carried out within the framework of the project will continue to include, inform and engage citizens, as mentioned in the KM3NeT Outreach and Communication Strategic Plan.

3. Communication tools and actions

In order to reach the widest audience possible and to ensure the visibility of the project as well as the visibility of the KM3NeT experiment, INFRADEV2 will implement **generic communication tools and actions, capable of reaching all kinds of audiences and of informing on the main progress of the project**. This section presents the types of actions targeted and the tools recommended in this respect.

3.1. About communication: definition, objectives and targets

Communication aims to inform and promote the project's activities and results. It should reach the largest audience possible, including the media and general public. In the context of EU-funded projects, communication is also a GA obligation. Therefore, **KM3NeT-INFRADEV2 has to set up a communication strategy to reach as much public as possible while respecting its EU commitment**.

If KM3NeT has a good communication, a brief analysis of the KM3NeT Collaboration's current communication has held to identify some **issues that the INFRADEV2 communication plan will have to address**:

- For the KM3NeT Collaboration itself, INFRADEV2 could be an opportunity to create an internal newsletter to share the latest news and main achievements of the project. This newsletter could be open to other Collaboration events, in particular to show how INFRADEV2 supports the overall activities of KM3NeT.
- KM3NeT's general communication tools, such as social networks, can be further mobilised, in particular by integrating content destined for audiences other than the scientific communities, funding agencies, or the general public interested in science, which predominates at the moment. For example, new means of communication could be created to reach new audiences, such as a TikTok account for younger general public.
- The KM3NeT's website could also be modernised in order to incorporate content designed to reach wider audiences, such as the general public, companies, teachers and students.

- KM3NeT's communication kit (brochures, flyers, posters) could be updated, to integrate changes that occurred during the past years, to be clearer and more modern. Special attention should be given to the brochures for industries[7].
- Finally, European support and funding are insufficiently presented on the Collaboration's communication tools. The present Plan should then pay particular attention to this point.

Therefore, INFRADEV2 priority objectives for general communication will be to create content for all kind of public, and especially for industries, and to reinforce the mention of the EU as an important contributor to the development of the Collaboration. A key objective will also be to make the contributions of INFRADEV2 known to the Collaboration members themselves.

3.2. INFRADEV2 communication tools

The KM3NeT Collaboration has multiple communication channels, which are made available to implement communication around INFRADEV2. Being an EU-funded project, INFRADEV2 also benefits from the means provided by Europe.

From KM3NeT, the main tools that will be used for INFRADEV2 are **online**: social media, the KM3NeT website and Wikipedia page. A particular effort will be made to upload, refresh and update their content with new material that reflects the project dynamic.

In this sense, INFRADEV2's communication strategy can also be supported by the existing **materials** produced by the Collaboration and by specific documents that will be created during the project. A non-exhaustive list includes images and illustrations, leaflets, flyers, brochures, posters or fact sheets. These should be adapted according to the target audience, their circumstances of use and the results to be promoted.

Another key communication channel are events that involve the partners and their **participation in person, such as conferences, networking or participation in various activities** (science fairs, visits, exhibitions, etc.). Indeed, KM3NeT has the privilege to be a large collaboration, with many partners, who are often involved in such events, thus providing a significant opportunity to reach out to other audiences. Moreover, these events are often a great occasion to engage with the media. INFRADEV2 efforts and results should be integrated in these events – when relevant – and specific activities could be planned to reinforce the promotion of the project and overall KM3NeT experiment. **Partners should be actively involved in seeking opportunities to present and showcase the project in their own countries and at both local and European levels**. The participation in events must be previously communicated to the EPM (in order to make visible activities through communication channels).

Regarding the framework of the EU funding, some tools made available by the European Commission could be used. For example, the Research and innovation "Success

[7] For example, the material suggested in: KM3NeT Collaboration. (2018). *Demonstrator on the material prepared for the participation of KM3NeT in technology exhibitions* and KM3NeT Collaboration. (n.d.). "Outreach material and events", *km3net.org*.

stories"[8] as well as the Horizon Magazine[9]. **Finally, the support of the European Commission must be recognised in the above-mentioned communication tools and materials, that must include the EU emblem, along with a specific funding statement.** When associated with other logos, the EU emblem must be the same size as the others.

Figure 2 : EU emblem and associated funding statement for communication tools and materials

This project has received funding from the European Union's Horizon research and innovation programme under grant agreement No 101079679.

3.3. Communication activities

This section presents the activities envisaged by the partners to promote and publicise the project in a rather general way. Here, the KM3NeT community as well as the scientific communities are particularly targeted. It also contains events aimed at the general public and/or schools. Events and materials specifically aimed at the scientific and industrial communities will be developed in the sections on dissemination (4) and exploitation (5) of results. Here the activities are listed in chronological order of priority. However, they will all be carried out throughout the project to ensure good communication throughout its lifetime.

- **Production and update of materials**: specific materials, such as brochures, posters, images, will be produced for INFRADEV2 (see Annexes 3 & 4). They will be used for the presentation of the project, on the website and especially during events, conferences, meetings, etc. They should point out the project highlights: its objectives, results and expected impacts. While keeping the same visual identity (logo, graphic charter, font) they will be adapted according to the contexts and target audiences. All the material produced will be referred to as a "communication kit" and will be available to all the partners involved in the project for the widest possible use.
- **Production and update of websites**: both the KM3NeT website and its Wikipedia page are ways of detailing the project and its implications, while allowing a large amount of information to be shared in one place. Firstly, both pages will be updated to make more visible the European support and the European projects in which the Collaboration has participated. A specific section for INFRADEV2 has been be created,

[8] "Success stories" is webpage on the European Commission website dedicated to successful Research and Innovation projects. More information on: https://ec.europa.eu/research-and-innovation/en/projects/success-stories

[9] The Horizon Magazine is funded by the European Commission and publish articles on innovative and thought-provoking EU-funded projects. More information on: https://ec.europa.eu/research-and-innovation/en/horizon-magazine/about-horizon

in order to present the project in detail, add the communication materials created and all the public deliverables of the project.

- **Social media and news content**: INFRADEV2 will be punctuated by the achievement of milestones (kick-off meeting, ICT system launch, closure meeting, events, etc). These will be the subject of specific posts on social networks and on the news section of the KM3NeT website in order to communicate on the project and its highlights. Social media posts should include the hashtag #INFRADEV2, along with the #KM3NeT one. For example, a twitter post (see Annex 5) and a news item[10] were published following the kick-off meeting to highlight the launch of the project and its contribution to the full implementation of KM3NeT RI.
- **KM3NeT and Public events**: INFRADEV2 should be mentioned in all related KM3NeT events, such as the Collaboration meetings, to inform the entire KM3NeT community about the progress of the project and possible impacts on the Collaboration. When possible, the project should also be presented at outreach events presenting KM3NeT or related projects. For example, at science fairs, visits to installation sites or participating laboratories. Events aimed at school audiences, in secondary or higher education, could also be envisaged. These events should use the project's communication kit.
- **Internal communication**: a newsletter could be created to ensure the project communication within the Collaboration. It could periodically report on the project's progress and results, and remind its impact on the development of the KM3NeT RI. Although internal to the Collaboration, this newsletter will still have to comply with European obligations in terms of communication, by mentioning European funding.

Table 3 : Overview of the planned activities for KM3NeT-INFRADEV2's communication

TYPE	MEDIA	OBJECTIVE(S)	TARGET(S)
Materials	Communication kit	Production and update for communication on the project main activities and outputs	All
Materials	Press/media material	Production of press release and press packs	Media, general public and external partners
Website	KM3NeT Collaboration website https://www.km3net.org/	Production and update of content for communication on the project details and news	KM3NeT community, scientific communities, general public

[10] The Kick-Off Meeting news item can be consulted on: https://www.km3net.org/the-km3net-infradev2-project-is-officially-launched/

Website	KM3NeT Wikipedia page https://en.wikipedia.org/wiki/KM3NeT	Production and update of content for communication on the project details	Scientific communities, general public
Social Network	Twitter https://twitter.com/km3net	Communication on the project main activities, outputs and on its news	All, with specific emphasis on scientific journalists
Social Network	Facebook https://www.facebook.com/KM3NeT/	If relevant: Communication on the project main activities, outputs and on its news	All, with specific emphasis on older general public
Social Network	YouTube Channel https://www.youtube.com/user/KM3NeTneutrino	If relevant: Communication on the project main activities, outputs and on its news	All
Social Network	LinkedIn https://www.linkedin.com/in/km3net-neutrino-9a491a79/?originalSubdomain=nl	Communication on the project main activities, outputs and on its news	All, with specific emphasis on companies
Social Network	Instagram https://www.instagram.com/km3net/?hl=en	If relevant: Communication on the project main activities, outputs and on its news	All, with specific emphasis on younger general public
KM3NeT Events	Collaboration meetings, conferences, etc.	Communication about the project's contributions to the experiment	KM3NeT community and possible partners
Public Events	Science fairs, fora, visits, exhibition, school events, etc.	Promotion of the project, its added-value and main impacts	General public, Media and possible academic, industrial or financial partners
KM3NeT Internal communication	Creation of a newsletter	Communication on the project's progress and results, and about its contributions to the experiment	KM3NeT community

4. Dissemination objectives and approach

One of the objectives of communication activities is to **broadly disseminate the results of the project to the interested publics**, i.e. the target groups that could further use them. In this section, the dissemination actions undertaken to share the results of INFRADEV2 are detailed.

4.1. About dissemination: definition, objectives and targets

Dissemination consists in making the project's results public for others. It implies to communicate about the results in order to make them visible to interested audiences and to release them free of charge and on the appropriate channels so they can be accessible to as many people as possible. Dissemination activities should thus be aimed at more specific and experienced audiences – in contrast to generic communication activities, targeted at a wider public – **in particular to the scientific communities or interested industrials, so that the results produced can be reused, and thereby maximise their impact. Dissemination aims at making the project's results a common good**. Dissemination will be intensified as the project advances.

In general, dissemination in research projects includes activities related to publications, open data access and conferences. INFRADEV2, unlike the rest of the projects conducted in the framework of the Collaboration, has a particularity: it is not entirely a research project, so no scientific data, nor technological innovation are created within the project. However, until now, the outreach strategy of KM3NeT has been more focused on the scientific and technical aspects of the telescope itself, which are not directly at the heart of the INFRADEV2 project. Therefore, the dissemination of the results produced must be approached in a different way, with **particular emphasis on the structure and organisation of the KM3NeT RI, its impact on the researches conducted, the partnerships developed and the benefits brought to society**.

4.2. INFRADEV2 approach for dissemination

For dissemination, the same tools as for communication will be used, with the addition of **possible publications and participation in specific conferences and events depending on the target groups**. These events will be identified by the partners concerned, in their respective countries, or *via* the KM3NeT committees. WP1 will still be in charge of the coordination of dissemination activities, even if the undertaken actions will be different for each WP, according to their work topics and the results produced.

Within INFRADEV2, some WPs are more likely to produce results that should be widely disseminated. For WP2 and WP3, the main results concern the KM3NeT Collaboration and partners who are wishing to join. Dissemination efforts should thus be made among these communities, without trying to reach a large public, and relate more to the exploitation strategy of the project (see part 5). However, special attention may be given to the results of WP4 and WP5.

- **WP4**, being dedicated to Data Management & Open Science, has a particular place as it aims to improve the data management and open science practices of KM3NeT. **Its main public results will be the effective implementation, online, of data management and open science platforms as well as the participation in global multi-messenger alert networks**. Thanks to these efforts, data produced within the KM3NeT experiment will be accessible and reusable according to FAIR principles, and an operational system with, at the minimum, test data will be available. In addition, production of high-quality data and the optimized infrastructure for full-scale data taking will be solved and a multi-site computing strategy implemented. Therefore, the INFRADEV2 dissemination strategy should emphasize on highlighting these advances and advertise their use, so that all interested scientific communities become aware of the opportunities offered by the KM3NeT RI. Regarding data management, data generated by KM3NeT will be managed according to the Collaboration's revised Data Management Plan (DMP)[11], insofar as they are not directly produced by the INFRADEV2 project itself.

- **WP5's results can inspire other communities to adopt an eco-friendlier approach, promote research projects as a potential for socio-economic development, both at regional and European level**. The results of the studies conducted in terms of sustainable development should therefore be shared with all interested groups, whether they are academic, scientific, regional or industrial stakeholders. The studies will be made public on the KM3NeT website, and may be the subject of specific publications or presented at conferences, to raise awareness of these issues in various communities. As an example, the effort made during the first INFRADEV project were presented during the 37th International Cosmic Ray Conference in 2021, which led to the publication of a paper on the online platform Proceedings of Science[12]. Specific material could also be produced as support. Finally, events with the relevant target groups could also be envisaged, such as meetings with local elected representatives, companies, media, etc.

4.3. Foreseen dissemination activities

This part mentions the type of activities planned for the dissemination. They will be specified as the project progresses, to indicate the publications envisaged, the events in which the partners will participate and the material produced. Each important activity will be communicated on the KM3NeT website and on its social networks. **Dissemination activities should be especially focused on the communities likely to reuse the results produced by INFRADEV2, i.e. the whole KM3NeT community, the associated scientific communities and**

[11] The KM3NeT Collaboration provided a DMP during the first INFRADEV project, which will be reviewed as part of WP4 Task 1. Reference: Graf, K. and Katz, U. (2017). *KM3NeT Data Management Plan*. Available at: https://www.km3net.org/wp-content/uploads/2018/10/D4.1-KM3NeT-Data-Management-Plan.pdf

[12] Grindberg, V.; Janhke, K.; Lindenstruth, V.; Markou, C.; Funk, S.; Katz, U. and Roth, M. (2021). "Sustainability in astroparticles physics", *Proceedings of Science*, 14-01. Available at: https://pos.sissa.it/395/1401/pdf

potential industrial partners. Partnerships in the framework of other European or international projects could be particularly mobilised as well as local networks.

As for communication, **every dissemination material** (such as publications, deliverables, conference reports or slides, etc) **and activity must bear the EU funded logo along with the appropriate disclaimer** in order to mention European funding and exclude the responsibility of the European Commission or the funding agency. Here again, the EU logo must be the same size as the other ones.

Figure 3 : EU funded logo and associated disclaimer for dissemination materials and 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 or European Research Executive Agency (REA). Neither the European Union nor the REA can be held responsible for them.

- **Deliverables**[13]: Deliverables are an integral part of the project dissemination strategy in that they present, in detail, the work done and the results achieved. The deliverables designated as public in the GA will be made available on the Collaboration's website and shared with all potentially interested groups. They may be presented at meetings, conferences or publications to ensure their visibility.
- **Production of specific material**: In order to highlight the results and their attractiveness, specific materials will be designed. These will detail the "offer" produced in the framework of INFRADEV2, notably in terms of access to data, possibilities for transferring experience or knowledge. For example, it could be brochures for industrials, a sustainable development guide for RIs, a flyer presenting data management and the data available, etc.
- **Participation in scientific conferences**: According to the results, the partners could intervene in scientific conferences (on data management, open science, sustainability in science, etc.) in order to present the progress made in the framework of INFRADEV2. As previously mentioned, participation in these conferences will be monitored by the KM3NeT CC, with notification of the Coordinator and the EPM.
- **Participation in cross-sector and industrial events**: In order to develop links with industry, foster technology transfer and innovation, partners will participate in networking events. These events will also be an opportunity to showcase the socio-economic impacts of KM3NeT to local authorities. Specific networks and possible cooperation will be identified by the partners, in particular in the framework of the work conducted by WP5. This may include fora, workshops, bilateral discussions, etc.

[13] See Annex 6: List of KM3NeT-INFRADEV2 deliverables.

These activities will be managed by the partners according to their means and the local context, who should inform the Coordinator and the EPM.

- **Publications**: Finally, the INFRADEV2's results may be published under the authority of the KM3NeT PC. The authors must inform the Coordinator and the EPM. These publications may be aimed at the scientific community but also at other target groups, depending on the opportunities. They may be published during the project period, or afterwards.

Table 4 : Overview of the foreseen activities for KM3NeT-INFRADEV2's results dissemination

TYPE	MEDIA	OBJECTIVE(S)	TARGET(S)
Results	Deliverables	Publication of the public deliverables on the KM3NeT website and sharing with interested audiences	All
Materials	Dissemination kit	Production of specific materials to present and highlight results to be disseminated	Target-oriented
KM3NeT Events	Collaboration meetings, conferences, etc.	Dissemination of the results reusable by the Collaboration members	KM3NeT community and possible partners
Scientific Events	Scientific fora, conferences, exhibitions, workshop, meetings, etc.	Presentation of the project's results that could be further used by scientific communities	Scientific communities (physics, Earth and sea sciences, RIs, etc)
Publications	Scientific magazine and journals	Dissemination of the results	Scientific communities
Networking	Industrial and local networks, events, fora, meetings, exhibitions, workshop, etc.	Presentation of the project's results that could be further used by industrial communities and supported by local authorities	Industrials partners, local authorities

5. Exploitation possibilities

Dissemination of results is a key factor in the successful exploitation of results, allowing for maximum reach to potential stakeholders. Indeed, the results of the project can be of interest and used by others, thus promoting knowledge transfer between sectors and benefiting the wider community. Some of the results produced by INFRADEV2 could be replicated and used, beyond the framework of the project or even the KM3NeT Collaboration. This section explores the possibilities for these productions to be further exploited by various communities.

5.1. About exploitation: definition, objectives and targets

Exploitation aims to make concrete use of the project's results, not only by researchers but by all of those who can make good use of them. The exploitation strategy intends to optimise the results by ensuring that the majority of the identified stakeholders use them at the end of the project. Exploitation actions are to be implemented towards the end of the project and beyond, as soon as the project's results are finalised and exploitable.

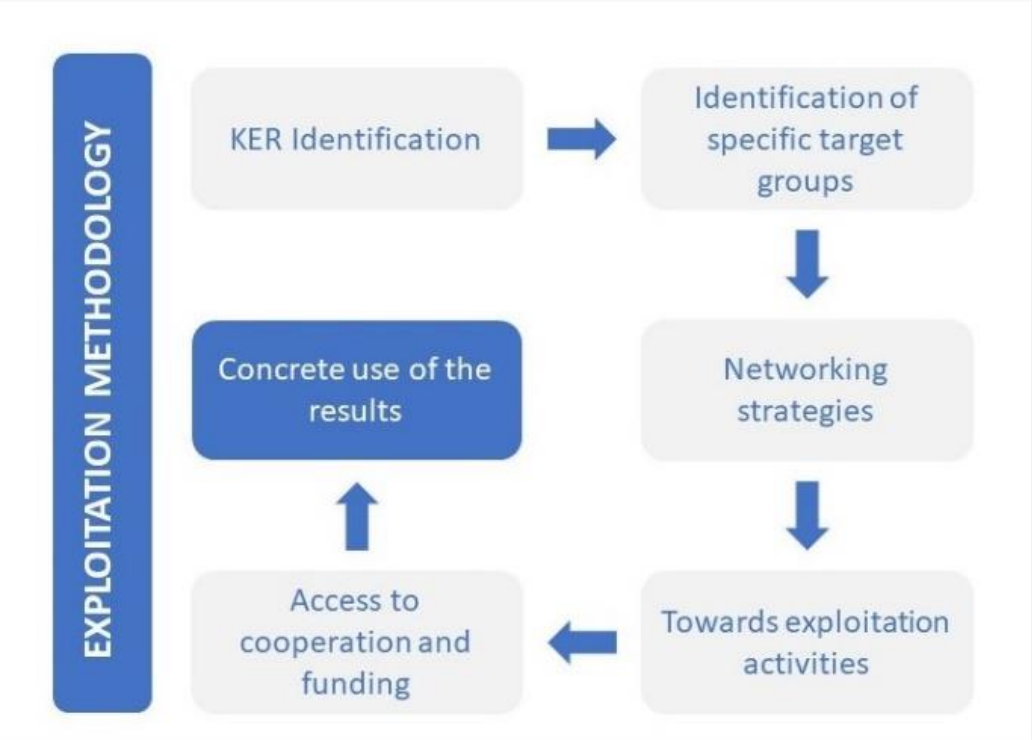
The exploitation of results, as well as communication and dissemination, is an obligation requested by the European Commission in the framework of Horizon Europe projects. Therefore, the **Commission imposes a "best effort" exploitation obligation to the partners until 4 years after the end of the project**. However, the partners remain free in the shape that this exploitation takes. Valorisation can thus take forms as diverse as commercialisation, research, standardisation, publication, licensing, transfer, etc.

In the case of INFRADEV2, **most of the results obtained will benefit the project partners, as well as the whole Collaboration**, by providing an efficient and sustainable structure to the KM3NeT experiment. For example, thanks to the project efforts, the whole Collaboration will be provided with the possibilities offered by the creation of an independent legal structure, data management and computing tools, a standardised procurement process, etc. One of the objectives of the exploitation of the results produced in INFRADEV2 will therefore be to maximise the use of the results within the Collaboration itself. However, by enabling the creation of a sustainable, efficient and open structure, the results of INFRADEV2 can be subjected to an exploitation strategy targeting academic, industrial, European and local partners of the KM3NeT RI.

5.1. Exploitation methodology

A successful exploitation strategy is based on several steps, aimed at making the results deemed exploitable (KER) known to interested targets so that they can seize them and implement further initiatives based on these results.

Figure 4 : Exploitation methodology scheme



- **The identification of KER results**: This step consists in identifying the results that can be mobilised in the future, notably by other networks or actors than those of the project and the KM3NeT Collaboration. This requires consideration of the context in which the results were published and to question about their scope and possible innovative character. The next section, "Opportunities and limits to the exploitation of INFRADEV2 results" (5.2) provides an initial outline of this identification phase, that will be updated throughout the project.
- **The identification of specific target groups**: According to the identified KER, specific target groups who might be interested will need to be identified. These groups also include structures that can replicate the results, enable their long-term use or finance their future development. They can be scientific, educational and industrial communities or public authorities.
- **Dissemination and networking strategies**: Once KER and targets are identified, the consortium will engage in dissemination and networking strategies in order to showcase the results and to establish partnerships with potential users or collaborators. These activities are mentioned in the previous part on Dissemination (4.3).

- **Towards exploitation activities**: This wide range of activities include any action needed by the partners to ensure the correct implementation of the exploitation strategy. For example, negotiations for future partnerships, planning a funding strategy, preparing applications for funding, etc. They should lead to **the access of concrete cooperation and funding in order to ensure that the results produced will be further mobilised, used or developed, outside the framework of INFRADEV2**.

Progressively, the application of this strategy should lead to the concrete exploitation of the results produced by INFRADEV2. Throughout the project, WP leaders and their teams will be involved in identifying the key results of their work. They will also have to identify the associated exploitation opportunities, particularly thanks to the dissemination activities (networking events, conferences, etc). This work will involve the KM3NeT Collaboration as well as the ARCA, ORCA and Greek host sites, for which further local partnerships can be established.

5.2. Opportunities and limits to the exploitation of INFRADEV2 results

This first version of the KM3NeT-INFRADEV2 Dissemination & Exploitation Plan explores the possibilities for the exploitation of the project's results, with the actual context and progress of the project. However, the ideas developed in the following section will need to be updated as the project progresses. **A review of the Plan will be scheduled at the end of each year (December 2023; December 2024 and December 2025) to ensure the relevance of the strategy adopted by the partners**. This review will be carried out by the EPM, following the discussions held during the PMB meetings.

At the beginning of the project, different possible KER can be identified:

- The **studies conducted within WP3** will be important for the future use of the detector by members of the KM3NeT, but especially by external partners. In particular, the FIDES Analysis and the RAMS Report ensure the best reliability and availability of the detector, and thus could provide strong arguments to open its use to new users. The Procurement Plan will provide a solid base towards completion of the telescope and may represent a useful reference for projects of comparable size. Therefore, depending on the aims of the Collaboration, these results could be used as part of an enhanced strategy for the further exploitation of the detector. Specific communication material could be created on these topics as well as dedicated presentations at networking events.
- The improvements made by **WP4 regarding Data Management and Open Science partly aims to create an efficient cross-disciplinary environment**. Once the KM3NeT open science and data management platforms are online, the exploitation strategy could ensure its use beyond the Collaboration and maintain a concrete open research environment. Here again, activities to promote these systems could be put in place, particularly among data users, through the organisation of workshops or by presenting

them at events and meetings. The members of the EOSC[14] and the International Virtual Observatory Alliance[15] are privileged targets through already existing cooperations from the ESCAPE and EOSC-future project[16] and involvement of KM3NeT in the VODF initiative[17].

- By aiming to **demonstrate the KM3NeT as a role model for a sustainable RI**, **WP5**'s results could be further exploited in order to ensure that the measures recommended are implemented over the long term and, above all, that they are taken up and applied by other RIs on a European scale. We believe that through a wide dissemination of the results and measurement methods used will be able to inspire the actors of the European research area towards a greener research. Not only will the measures be adopted within the Collaboration and with its partners, but they will also be showcased for reuse elsewhere. Here, specific roadmaps, guides or forums could be imagined, depending on the resources of the Collaboration. Moreover, as calls for projects in this sector are increasingly numerous, **the Collaboration may be able to claim specific sources of funding to implement the procedures devised in the framework of INFRADEV2**.
- Depending on the results provided regarding the **socio-economic impact of the KM3NeT operations (WP5)**, they could be further exploited in order to improve their positive impact and make them sustainable. Be reinforcing the active acceptance of the project by the local societies and authorities, new partnerships and funding could be further imagined. Here, the **exploitation strategy will be networking and the creation of possible new partnerships at local level**, with educational and research institutions, public authorities, associations, companies, etc.
- WP5 will also produce results regarding **the promotion of technology developments in collaboration with specific industrial partners**. According to the INFRADEV2 experience, further partnerships with industrial communities could then be established and participate to improve transfers between the academic and industrial worlds. Therefore, the exploitation strategy should lead to the formalisation and perpetuation of such relationships, for the mutual benefit of science and economy. The first step of this strategy should be the identification of existing and potential public-private partnerships, by industry sector (optical detectors, high-speed communication, deep-sea technology, etc). Then, technology transfer procedures and

[14] The European Open Science Cloud (EOSC) is a European Commission initiative aiming at developing an infrastructure providing its users with services promoting open science practices. The KM3NeT Collaboration participates in this initiative. More information on: https://www.km3net.org/km3net-eu-projects/km3net-participation-in-other-eu-projects/

[15] The International Virtual Observatory Alliance (IVOA) is an organisation dedicated to create a Virtual observatory, where astronomical datasets and other resources work as the whole, by establishing shared technical standards. More information on: https://www.ivoa.net/

[16] ESCAPE services contribute to the EOSC implementation and the mechanism for that migration is the EOSC-Future project, within which ESCAPE is one of the science drivers. More information on: https://projectescape.eu/escape-and-eosc-future

[17] The Very-high-energy Open Data Format, VODF, is an open data model and format for Very-High-Energy (VHE) gamma-ray and neutrino astronomy. Its goal is to provide a standard set of file formats and standards for data. More information on: https://vodf.readthedocs.io/en/latest/

joined projects could be developed, in accordance with the results of the dissemination strategy, the IPR fixed by the GA, the CA and the Collaboration.

However, there are potential limits to this exploitation strategy:

1. Due to **lack of time and resources**, the staff involved in the project have limited time to engage in communication, dissemination and operational activities, which slows down their implementation and limits their impact. However, INFRADEV2 has enabled the recruitment of personnel, which may have positive consequences in this respect.
2. **Partnerships with private industry may require additional effort** and may be complicated to achieve, as KM3NeT's activities are more related to a fundamental science approach, traditionally perceived as "distant" from society. Applications in industry seem less apparent than for other research sectors. Thus, reaching the industrial sector will require particular efforts and the development of a specific industry language.
3. **The sustainability of the telescope and the Collaboration** is – for the time being – hardly put forward by the Collaboration and does not appear in its priority outreach and communication themes. Highlighting this major outcome of INFRADEV2 will therefore require agreement from the Collaboration and an update of some of its tools.

These limitations are already known by the members of the INFRADEV2 project and by the rest of the Collaboration. Moreover, if they slow down certain activities, they do not prevent the implementation of a fairly satisfactory communication, dissemination and exploitation strategy, especially in the framework of a Collaboration as large and complex as KM3NeT. In this context, INFRADEV2 could, however, give new impulse and renewal to this strategy.

Table 5 : Overview of the possible activities for KM3NeT-INFRADEV2's results exploitation

TYPE	MEDIA	OBJECTIVE(S)	TARGET(S)
Materials	Dissemination kit	Further use of the material produced for dissemination to support the presentation and valorisation of results	Target-oriented
Materials	Specific guides and/or roadmaps	Production of specific documents to showcase the results produced and encourage their further use by external partners	Scientific communities mainly

Presentation	Networking events, meetings, workshops, fora, etc.	Detailed presentation of the results and how they can be used by external partners	Scientific communities, industrial, academic and local partners
Strategic planning	Administrative and prospective actions towards new funding sources	Strategically look for funding that could help implement the results of INFRADEV2	Financial partners
Strategic planning	Administrative and prospective actions towards new and/or formalised local partnerships	Strategically look for local partnerships that could enhance the positive socio-economic impact of KM3NeT	Local authorities, partners of the civil society and academic fields
Strategic planning	Administrative and prospective actions towards new and/or formalised industrial partnerships	Strategically look for existing and potential partnerships to encourage collaboration and technology transfers.	Industrial partners

6. Conclusions

In conclusion, this evolving document lays the foundations for communication around the KM3NeT-INFRADEV2 project as well as for the dissemination and exploitation of its results identified as being of specific interest to the Collaboration and its partners. It will be revised and further detailed at the end of each year of the project, as it progresses and as its results become available.

The Coordinator of the INFRADEV2 project will be responsible for its implementation, under the umbrella of the KM3NeT associated committees and with the effective participation of all partners involved in the project, according to their capacity.

In the current context, it is hoped that the results produced under INFRADEV2 and the implementation of this Plan can be an opportunity to give an impulse and to renew the existing Outreach and Communication strategy. Indeed, this Plan intends to further spread the Collaboration's key messages, by updating them and reaching an even wider range of audiences. **The aim of this strategy will be to maximise the exploitation and positive impact of the fully implemented KM3NeT RI**.

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XIII. ANNEXES

Annex 1 : General rules for the production of content for communication, dissemination and exploitation

For the production of communication and dissemination material:

1. All material must **comply with EU obligations** mentioned in Figure 2 (page 16) and Figure 3 (page 21) of this Plan, i.e. add the EU logo or emblem with the appropriate disclaimer on all documents created within the INFRADEV2 project. These obligations appear in Article 17 – "Communication, Dissemination and Visibility" of the GA.

2. All material must bear the **KM3NeT Copyright notice**, including the use of photos, videos and illustrations from the Collaboration, as follows: "©KM3NeT Collaboration", "Copyright KM3NeT", "Courtesy KM3NeT" or "Credits KM3NeT". For the use of external photos, videos and illustrations, partners will also have to mention the appropriate credits.

3. As preconised by the KM3NeT OC and decided by the members of the PMB, **the use of logos** must be limited to ensure a sense of clarity and avoid misuses. Therefore, the main communication and dissemination material will only use the official beneficiaries' logo of the INFRADEV2 project (CNRS, FAU, INFN, NCSR-D, CSIC and NOW-I).

Example: Standard mention of partners for communication material

4. However, for specific content, the effective participation of a partner can be mentioned in a more detailed way, by specifying its home institute or laboratory. In this case, the logo of the laboratory or institute may be used along with its parent institution's. This can be the case for slides or specific paper that justifies the particular implication of a laboratory or institute.

For the participation in conferences:

1. The EU funding must be acknowledged in the same way as for dissemination material (Figure 3, page 21)
2. Partners of the INFRADEV2 project must comply with the rules and procedures set by the KM3NeT Conference Committee.
3. Partners should inform the Coordinator of their participation in conferences.

For publications:

1. The EU funding must be acknowledged in the same way as for dissemination material (Figure 3, page 21)
2. All EU deliverables should bear the KM3NeT Copyright notice, as follows: "© Members of the KM3NeT Collaboration"
3. Partners of the INFRADEV2 project must comply with the rules and procedures set by the KM3NeT Publication Committee.
4. Partners should inform the Coordinator of their publication.

About IPR:

Dissemination and exploitation activities conducted under KM3NeT-INFRADEV2 must comply with **Open Science principles and the collaborative dimension of Horizon Europe projects**. These are the guiding principles of the IPRs set out in the project's CA and GA:

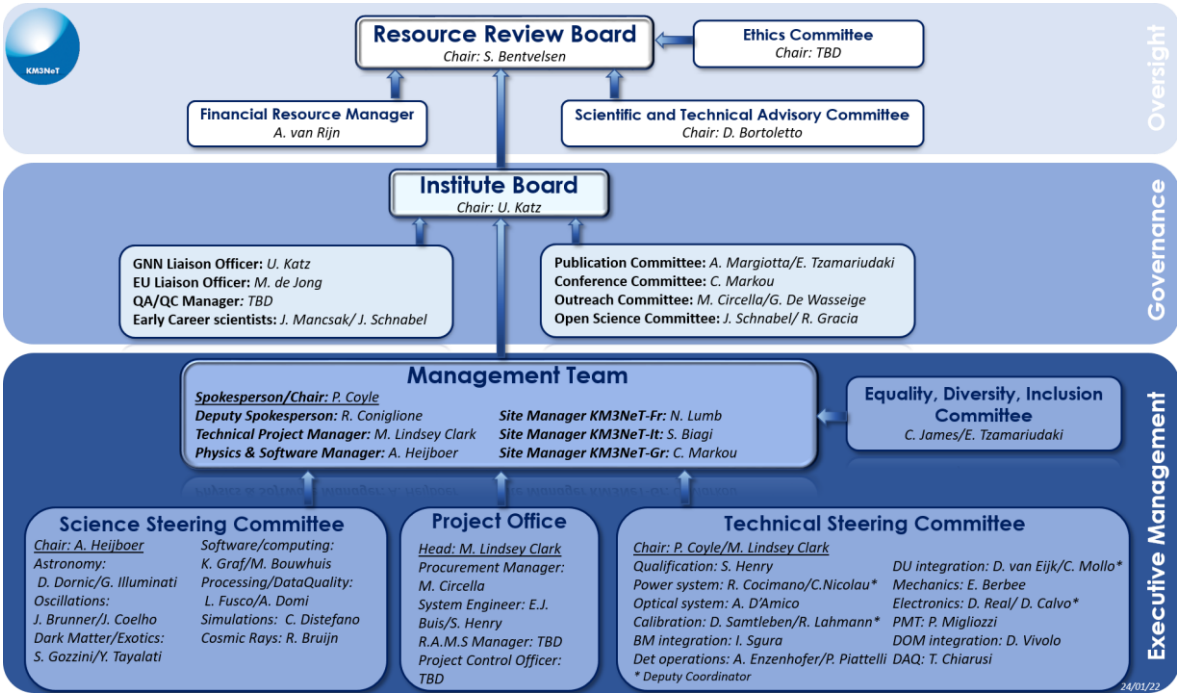
1. The dissemination and exploitation of the results produced within the KM3NeT-INFRADEV2 project are governed by the IPR provisions set in **articles 8 ("Results") and 9 ("Access rights") of the CA**, according to which the IPR belong to the beneficiary who generated the results. If these results are generated in common, then the IPR is shared between the beneficiaries.

2. These provisions are in line with the partners' obligations mentioned **in articles 15 ("Data protection") and 16 (IPR – Background and results – Access rights and rights of use") of the GA, as well as in its Annex 5**.

Regarding the provisions set by the KM3NeT Collaboration, partners can refer to the deliverable *Regulations for cooperation models, authorship rights and intellectual property rights,* made during the first INFRADEV project[18]. This document provides general guidelines for members of the Collaboration, especially for open science products, such as data and software.

[18] KM3NeT Collaboration. (2020). *Regulations for cooperation models, authorships rights and intellectual property rights*. Available at: https://www.km3net.org/wp-content/uploads/2021/03/D4.10-KM3NeT-Regulatons-for-external-users.pdf

Annex 2 : Organisation of the KM3NeT Collaboration



Annex 3 : KM3NeT-INFRADEV2 presentation flyer

KM3NeT-INFRADEV2

2023-2026

Towards full implementation of the KM3NeT Research Infrastructure

The INFRADEV2 project, funded under the Horizon Europe programme, is the second INFRADEV action dedicated to the **KM3NeT Research Infrastructure**, hosting a new-generation neutrinos telescope along with environmental detectors for Earth and Sea sciences in the abyss of the Mediterranean. Carried out within the current KM3NeT Collaboration efforts, INFRADEV2 aims to provide further resources towards the full implementation of the KM3NeT Research Infrastructure.

INFRADEV2 MAIN GOALS	INFRADEV2 MAIN IMPACTS
Establish a Legal Entity for KM3NeT	Improve the management and governance of KM3NeT along with its participation in European networks
Accelerate the implementation of the detector	Guarantee the best possible reliability and availability of the detector during its lifetime
Develop Data Management and Open science practices	Provide data with FAIR principles and increase the development of interoperability standards in the science community
Ensure a sustainable future for the infrastructure	Demonstrate KM3NeT as a role model for a research infrastructure with high sustainability standards and societal and environmental awareness

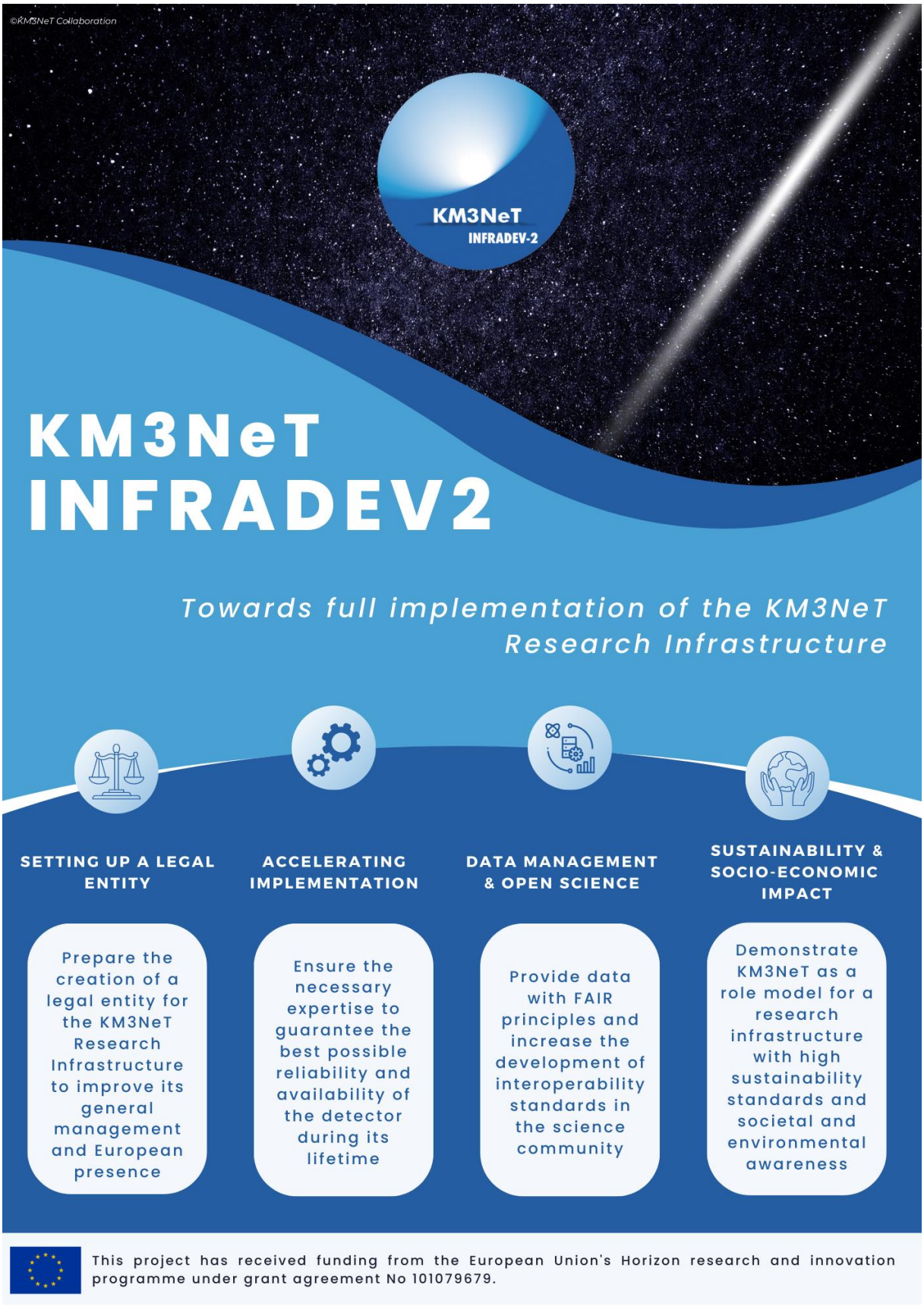
More information on the KM3NeT Collaboration website

Funded by the European Union

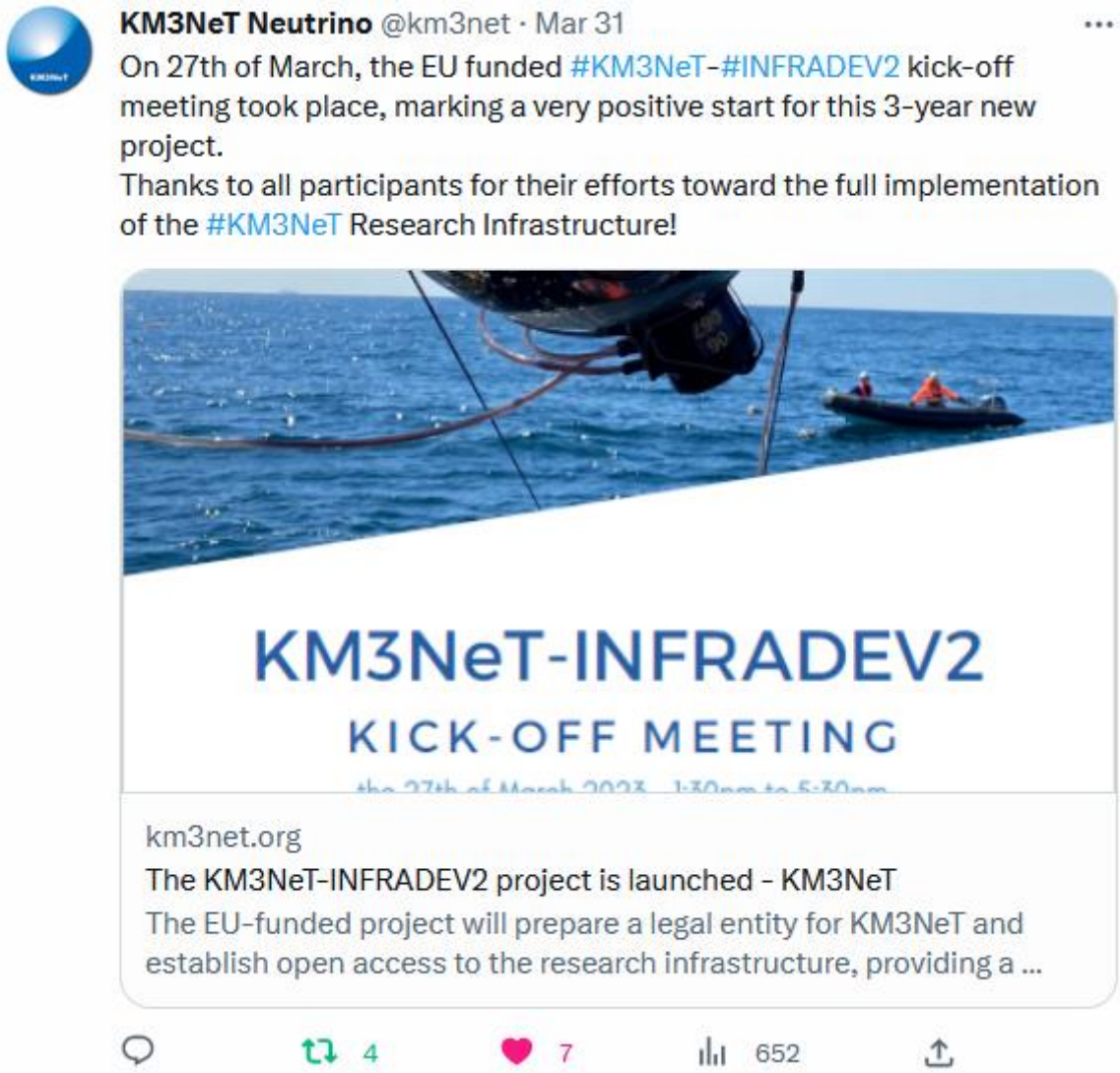
This project has received funding from the European Union's Horizon research and innovation programme under grant agreement No 101079679.

Towards full implementation of the KM3NeT Research Infrastructure

Annex 4 : KM3NeT-INFRADEV2 presentation poster



Annex 5 : Twitter post for the launch of the KM3NeT-INFRADEV2 project



Annex 6 : List of the KM3NeT-INFRADEV2 deliverables

Number	WP	Title
D1.1	WP1	KM3NeT-INFRADEV2 Kick-off Meeting Report
D1.2	WP1	KM3NeT-INFRADEV2 Dissemination and Exploitation Plan
D2.1	WP2	Report on chosen legal entity form
D2.2	WP2	Report on legal documents
D2.3	WP2	Report on status of legal entity
D3.1	WP3	Procurement Plan for KM3NeT
D3.2	WP3	FIDES Analysis for all electronic boards
D3.3	WP3	Global RAMS report for all KM3NeT sub-systems
D4.1	WP4	Report on the results of the review of the KM3NeT DMP by external experts

D4.2	WP4	Report on the definition of data models and interfaces
D4.3	WP4	Report on ICT development, data management and open science
D5.1	WP5	Report on the proposed procedures for sustainable travel and mobility
D5.2	WP5	Report on the proposed transformation to green computing
D5.3	WP5	Report on the decommissioning and recycling procedures
D5.4	WP5	Socio-economic impact study for France and Greece
D5.5	WP5	Report on the promotion of technology developments