GuardIAS

GUARDING EUROPEAN WATERS
FROM INVASIVE ALIEN SPECIES

Deliverable

D6.1 DEC Plan

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Executive Summary

The GuardIAS project—*Guarding European Waters from Invasive Alien Species*—funded under the Horizon Europe programme (GA No. 101181413), is a multidisciplinary research and innovation initiative designed to address one of the most pressing environmental challenges facing Europe, the growing threat of Invasive Alien Species (IAS) in aquatic ecosystems. IAS significantly disrupt biodiversity, degrade ecosystem services, and generate substantial socio-economic costs. In response, GuardIAS delivers a suite of innovative, science-based tools and strategies aimed at prevention, early detection, control, and long-term mitigation of IAS impacts, directly supporting the IAS Regulation, the EU Biodiversity Strategy for 2030, and the Kunming-Montreal Global Biodiversity Framework.

This **Dissemination, Exploitation, and Communication (DEC) Plan**, developed under Work Package 6 (WP6), is a foundational element for ensuring the uptake, impact, and sustainability of project results. It defines a strategic, structured, and adaptable approach to how knowledge, innovations, and outputs generated by GuardIAS will be shared with, communicated and transferred to, and applied by diverse stakeholder groups throughout and beyond the project's lifecycle.

The DEC Plan is guided by five core questions—**Why**, **Who**, **What**, **Where/How**, and **When**—to deliver a systematic and effective outreach strategy. The **"Why"** addresses the purpose: ensuring the visibility, accessibility, and real-world uptake of the project's outputs, including scientific tools, policy recommendations, and educational resources. The **"Who"** identifies the project's target audiences, which include policymakers at EU, national, and regional levels; scientists and academic researchers; industry actors (e.g., shipping, aquaculture); environmental managers and practitioners; educators and students; civil society; and the general public. Each group is addressed through tailored communication channels and formats to maximise relevance and engagement.

The **"What"** encompasses the wide array of outputs and engagement activities, including: peer-reviewed scientific publications, technical reports, Massive Open Online Courses (MOOCs), summer schools, citizen science campaigns, policy briefs, stakeholder workshops, short videos, infographics, and applied games. Outputs are mapped against performance indicators (KPIs), with targeted goals such as producing 60+ open-access publications, engaging 1000+ citizens in monitoring activities, and training 100+ stakeholders through webinars and tailored sessions.

The **"Where and How"** describes the implementation pathway across ten interrelated tasks, covering strategic planning, branding, knowledge management, educational outreach, policy engagement and stakeholder mobilisation. The GuardIAS website, SM presence (LinkedIn, BlueSky, YouTube), and visual identity toolkit have been created to ensure coherent and recognisable branding. Dissemination and communication protocols, including intellectual property (IP), assessment and prior-notice procedures, ensure compliance with Horizon Europe's legal and ethical frameworks, including data protection (GDPR) and IP management.

A key strength of the DEC Plan is the integration of a robust **Knowledge Management and Knowledge Transfer (KMKT)** methodology. This approach ensures that the project's Key Exploitable Results (KERs) are identified, assessed, and transferred to specific end-users via tailored Knowledge Transfer Plans (KTPs). The methodology—developed through prior EU projects—supports the creation of pathways to real-world impact and fosters long-term sustainability.

Monitoring and reporting are continuous processes, with progress tracked via a central DEC Plan dashboard updated quarterly by all partners. This is complemented by annual impact reports, IP tracking, and stakeholder satisfaction surveys to inform adjustments and continuous improvement.

In sum, the GuardIAS DEC Plan provides a comprehensive and dynamic framework to ensure that the knowledge, innovations, and societal contributions generated by the project are effectively communicated, broadly disseminated, and actively exploited. It aims not only to raise awareness but to foster behaviour change, policy influence, and long-term integration of GuardIAS outcomes into real-world aquatic IAS management and governance systems.

Acronyms & Abbreviations

Table 1. Table of abbreviations and acronyms used in the document

Acronym / Abbreviation	Signification
AI	Artificial Intelligence
AquaNIS	Aquatic Non-Indigenous Species
BHD	Birds and Habitats Directive
CA	Consortium Agreement
CS	Citizen Science
DEC	Dissemination Exploitation Communication
DG-ENV	Directorate-General for Environment - the European Commission department responsible for EU policy on the environment
DG-MARE	Directorate-General for Maritime Affairs and Fisheries - the European Commission department responsible for EU policy on maritime affaires and fisheries
EASIN	European Alien Species Information Network
EC	European Commission
ECOPs	Early Career Ocean Professionals
EC Portal	EC Funding and Tender Opportunities Portal
ECSA	European Citizen Science Association
eDNA	Environmental DNA
EEA	European Economic Area
EMODnet	European Marine Observation and Data Network
EU	European Union
EuroGOOS	European component of the Global Ocean Observing System
GA	Grant Agreement
GBIF	Global Biodiversity Information Facility
GDPR	General Data Protection Regulation
HEU	Horizon Europe
IAS	Invasive Alien Species
IAS Reg.	Invasive Alien Species Regulation
ICAIS	International Conference for Aquatic Invasive Species
ICAIS	International Conference on Aquatic Invasive Species
ICMB	International Conference on Marine Bioinvasions
IOC-UNESCO	Intergovernmental Oceanographic Commission of UNESCO Ocean Literacy Portal
IP	Intellectual Property

Acronym / Abbreviation	Signification
IPBES	Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services
IPR	Intellectual Property Rights
IRL	Impact Readiness Levels
IUCN-EICAT	International Union for the Conservation of Nature – Environmental Impact Classification for Alien Taxa
IUCN GISD	International Union for the Conservation of Nature - Global Invasive Species Database
KCBD	Knowledge Centre for Biodiversity – a European Commission initiative on better knowledge management for policymaking on biodiversity
KER	Key Exploitable Result
KM-GBF	Kunming-Montreal Global Biodiversity Framework
KMKT	Knowledge Management and Knowledge Transfer
KO	Knowledge Output
KT	Knowledge Transfer
KTP	Knowledge Transfer Plan
MOOCs	Massive Online Open Courses
MSFD	Marine Strategy Framework Directive
NEOBIOTA	International Conference on Biological Invasions
NGO	Non-Governmental Organisation
OA	Open Access
OBIS	Ocean Biodiversity Information System
OneSTOP	OneBiosecurity Systems and Technology for People, Places and Pathways
ORE	Open Research Europe
PAB	Project Advisory Board
Party(ies)	Beneficiaries and Associated Partner(s), jointly or individually, are referred to as Party or Parties
SM	Social Media
UK	United Kingdom
UKRI	United Kingdom Research and Innovation
URL	Uniform Resource Locator
WFD	Water Framework Directive
WP	Work Package
WRiMS	World Register of Introduced Marine Species

1 GuardIAS Project: Background & Introduction

GuardIAS (Guarding European Waters from Invasive Alien Species) is a Horizon Europe-funded project dedicated to protecting European aquatic ecosystems from the growing global threat of invasive alien species (IAS). IAS pose severe risks to biodiversity, ecosystem services, and human well-being. The latest IPBES report highlights that of the 37,000 species introduced worldwide, over 3,500 are considered major global threats causing 60% of global extinctions and economic damage exceeding $400 billion annually (the economic impact of IAS in the EU is estimated to be at least €12 billion annually[1]). Within the EU, more than 2,000 aquatic alien species have been recorded, some with severe ecological and economic impacts. Climate change and globalization are expected to intensify the challenges associated with IAS. To address these growing threats, the EU has adopted policies and implemented regulations, such as the IAS Regulation and the EU Biodiversity Strategy for 2030. However, critical gaps remain in global IAS management, with only 17% of countries implementing specific control measures.

GuardIAS is designed to bridge these gaps by providing innovative, science-based solutions to mitigate IAS impacts, and to enhance the governance and management of IAS in aquatic environments. The project aligns with the EU Biodiversity Strategy for 2030 and the Kunming-Montreal Global Biodiversity Framework (KM-GBF), focusing on the prevention, early detection, and control of IAS in both marine and freshwater ecosystems. Through interdisciplinary collaboration and stakeholder engagement, GuardIAS will develop cutting-edge technologies, data-driven models, and innovative methodologies, including AI-powered tools to integrate IAS data and enhance early detection, eDNA-based monitoring and border control measures, advanced remote sensing and robotics for IAS surveillance, nanotechnology-based antifouling coatings to prevent new introductions, and citizen science initiatives and educational outreach to improve public awareness.

GuardIAS will work with policymakers, industry experts, scientists, and local communities to implement sustainable IAS management strategies across Europe. By integrating social sciences and humanities, the project also aims to improve public engagement and policy development for effective IAS mitigation.

[1] https://environment.ec.europa.eu/topics/nature-and-biodiversity/invasive-alien-species_en

2 Definitions, rights, rules, and obligations related to the project results

The foundation of the GuardIAS DEC Plan is the knowledge management process which is implemented from the start of the project and which informs communication, dissemination, and exploitation, in line with the European Commission (EC) definitions[2] as follows:

- **Communication** is a strategically planned process that starts at the outset of the project and continues throughout its entire lifetime. It is aimed at promoting GuardIAS and its results. It requires strategic and targeted measures for communicating about GuardIAS and the project's results to a multitude of audiences, including the media and the public, and possibly engaging in a two-way exchange. Activities used for communication purposes are e.g., a public website, press releases or social media (SM).
- **Dissemination** is the public disclosure of the project results by any appropriate means (other than resulting from protecting or exploiting the results), including by scientific [or professional] publication in any medium. It makes research results known to various stakeholder groups in a targeted way, enabling them to use the results in their own work. Activities used for dissemination purposes are e.g., conferences, education and training events, clustering activities and collaboration with other EU-funded projects.
- **Knowledge Transfer (KT) and exploitation** of results is more advanced than communication and dissemination, it involves the use of results in further innovation and deployment activities other than those covered by the project, including among other things, commercial exploitation such as developing, creating, manufacturing and marketing a product or process, creating and providing a service, or in standardisation activities. It requires several steps including identifying exploitation mechanisms and activities, focused on identified end users to ensure impact and uptake of the project results, which will provide measurable impacts for GuardIAS, while safeguarding any project-generated intellectual property is properly managed. It also explores ways to ensure the long-term impact and uptake of the project outcomes beyond the lifetime of the project.

The following paragraphs outline a summary of some key aspects of the rights and obligations relating to the protection of the project results; however, it is not an exhaustive summary. For further details on the project and Horizon Europe rules surrounding ownership and protection of results please refer to the Grant Agreement (GA), Consortium Agreement (CA) and on specific rules for data outputs, please see Data Management Plan (D7.1 DMP; due in M6).

2.1 Ownership of Results

Results are owned by the project party that generates them. Two or more project parties own results jointly if they have jointly generated them and it is not possible to establish the respective contribution of each party, or separate them, for the purpose of applying for, obtaining, or maintaining their protection

[2] https://commission.europa.eu/research-and-innovation_en; https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/common/temp-form/report/periodic-report_horizon-euratom_en.pdf

(GA Article 16.2 – Annex 5). The joint owners must agree (in writing) on the allocation and terms of exercise of their joint ownership (joint ownership agreement), to ensure compliance with their obligations under the GA (see GA Article 16 – Annex 5; CA section 8 for further details).

2.2 Protection of Results

Each party has an obligation to protect its results. Project parties who have received funding under the grant must adequately protect their results — for an appropriate period and with appropriate territorial coverage — if protection is possible and justified, taking into account all relevant considerations, including the prospects for commercial exploitation, the legitimate interests of the other project parties and any other legitimate interests.

2.3 Exploitation of Results

Each party has an obligation to exploit its results. Project parties who have received funding under the grant must — up to four years after the end of the action — use their best efforts to exploit their results directly or to have them exploited indirectly by another entity, in particular through transfer or licensing.

If, despite a party's best efforts, the results are not exploited within one year after the end of the action, the project parties must (unless otherwise agreed in writing with the granting authority) use the Horizon Results Platform to find interested parties to exploit the results (see GA Article 16 – Annex 5 for further details). Project parties must also continue to use their best efforts to exploit their results themselves throughout the subsequent four years.

2.3.1 Intellectual Property Rights (IPR) & Management

GuardIAS will follow the rules for IP set out and regulated by the EC. More information can be found in GA (Article 16.4) "Intellectual Property Rights (IPR) — Background and Results — Access Rights and Rights of Use", GA (Annex 5), and CA section 9 (attachment 1).

The Project Advisory Board (PAB) is a GuardIAS stakeholder body that will support project parties with the management of results, dissemination activities and IPR protection. The project parties will ensure that adequate steps towards protection are taken prior to DEC, preventing unapproved public disclosure of results, tools, products and services. An IP Assessment Form (Section 3.3.1; DEC Plan Annex 5.1) for screening DEC activities will be implemented and shared on the GuardIAS Teams Task 6.3 Folder for project parties to complete, ensuring protection of results.

2.3.2 Communication and Dissemination of Results

Each party must disseminate their results as soon as possible by disclosing them to the public. However, no dissemination may take place before a decision is made regarding possible protection (section 3.3.1). Other parties may object if their legitimate interests in relation to their results or background could potentially suffer harm. Results that are disclosed too early (before the decision on their protection) may run the risk of making protection impossible.

Therefore, project parties who intend to disseminate their results must give at least fifteen (15) calendar days prior notice (see section 3.3.1) to other project parties (unless agreed otherwise), together with sufficient information on the results they intend to disseminate (GA Article 17 – Annex 5). Prior notice of a planned publication shall be given to the other Parties at least 30 calendar days before the submission.

This relates to publications led by a GuardIAS Party, directly linked to the GuardIAS work plan, and where GuardIAS is the main funding source (CA section 8.4.2.1).

Any other party may object within (unless agreed otherwise) 15 days of receiving notification if it can show that its legitimate interests in relation to the results or background would be significantly harmed. In such cases, the results may not be disseminated unless appropriate steps are taken to safeguard those interests.

NO dissemination at all may take place, if:

- The results in question need to be protected as a trade secret (i.e. confidential knowhow) or
- Dissemination conflicts with any other obligations under the grant (e.g. personal data protection, security obligations, etc).

2.3.3 *Open Science and Open Access (OA) to Scientific Publications*

'Open Science' is an approach based on open cooperative work and systematic sharing of knowledge and tools as early and widely as possible in the research process.

The open science provisions in Horizon Europe contain a set of requirements and encouraged practices that cover some of the most important aspects of open science. They concern research outputs such as scientific publications and research data and additional open science practices.

'Research outputs' are results to which online access can be given in the form of scientific publications, data or other engineered outcomes and processes, such as software, algorithms, protocols, models, workflows and electronic notebooks.

The following sections outline OA requirements for scientific publications. For more information on open science in relation to research data management and FAIR principles, please see the GuardIAS DMP (D7.1 due in M6).

Providing OA to peer-reviewed scientific publications in Horizon Europe-funded projects is an obligation for all grants (GA Article 17 – Annex 5).

Beneficiaries must ensure OA to peer-reviewed scientific publications relating to their results. This includes articles and long-text formats, such as monographs and other types of books. Immediate OA is required i.e., at the same time as the first publication, through a trusted repository using specific open licences.

How to provide OA (source: Annotated GA HEU):

Beneficiaries/authors may publish in the venue of their choice, either in a closed venue (i.e. access to all content is restricted), an OA publishing venue or in a hybrid publishing venue, provided that all their OA-related obligations as detailed in the GA are complied with.

'OA publishing venues' are publishing venues whose entire scholarly content is published in OA (e.g. open access journals, books, publishing platforms, repositories or preprint servers).

'Hybrid publishing venues' are publishing venues which provide part of their scholarly content in OA, while another part is accessible through subscriptions/payments (e.g. hybrid journals and books). These are often journals/books based on subscription/purchase which provide OA to part of their content when an

OA fee is paid by their authors/institutions (paid ad hoc or on the basis of an institutional agreement with the publishers).

'Mirror and sister journals' (i.e. more recently established OA versions of existing subscription journals, which may share the same editorial board as the original journal and usually have (at least initially) the same or very similar aims, scope and peer review processes and policies; these journals often have a name similar to the subscription title (but a different ISSN), they are considered OA publishing venues for HE grants (not hybrid journals).

In parallel, beneficiaries/authors must deposit their publication in a machine-readable format (i.e. structured format that can automatically be read and processed by a computer) in a trusted repository — before or at publication time — and immediately provide OA to the publication through that repository.

⚠ Publishing in an **open access venue** without depositing in a repository, does NOT comply with the open access requirements. All peer-reviewed publications must be deposited in trusted repositories and open access provided to them through the repositories.

Best practice: Beneficiaries are encouraged to provide OA to ALL publications, even if they are not peer-reviewed.

When choosing the publishing venue and the repository, beneficiaries/authors must keep in mind that licensing requirements, metadata requirements and validation requirements must also be complied with at this time.

⚠ The European Commission offers Horizon Europe beneficiaries Open Research Europe (ORE), an **open access publishing platform with no publishing fees**. ORE is offered as an additional publishing option to Horizon Europe beneficiaries. When ORE is the selected publishing venue, all requirements for open access to scientific publications are automatically fulfilled, as ORE deposits publications in the all-purpose repository Zenodo under the conditions required by Horizon Europe.

Immediate OA through the repository must be provided either to the final peer-reviewed manuscript accepted for publication or to the final published peer-reviewed version.

Please also note that **publication fees are only eligible when publishing in full OA publishing venues (venues in which the entire scholarly content is openly accessible to all) and not in hybrid venues**. Publication fees may, in particular, include peer review fees, including where the peer review service has been provided by an organisation different from the one providing the publishing venue. Peer review fees for publications are eligible for reimbursement only for the first round of peer reviewers.

⚠ **Publishing fees** (including page charges or colour charges) for publications in other venues, for example in subscription journals (including hybrid journals) or in books that contain some scholarly content that is open and some that is closed are NOT eligible costs.

⚠ **Publishing fees** for open access books may be eligible to the extent that they cover the first digital open access edition of the book (which could include different formats such as html, pdf, epub, etc.).

⚠ **Printing fees** for monographs and other books are NOT eligible.

Repository requirements (source: Annotated GA HEU):

Beneficiaries must ensure deposition of, and OA to, publications (and research data, where the case) through trusted repositories.

'Repositories' are online archives, where researchers can deposit digital research outputs and provide (open) access to them. Repositories help manage and provide access to scientific outputs and contribute to the long-term preservation of digital assets. They can be institutional, operating with the purpose to collect, disseminate and preserve digital research outputs of individual research organizations (institutional repositories, e.g. the repository of University X) or domain-specific, operating to support specific research communities and supported/endorsed by them (e.g. Europe PMC for life sciences). There are also general-purpose repositories, such as e.g., Zenodo developed by CERN. As provisioned in the GuardIAS Data Management Plan, a dedicated Zenodo repository will be created to house papers, datasets, and software in open access (see DMP, Deliverable 7.1).

Personal websites and databases, publisher websites, as well as cloud storage services (Dropbox, Teams Channel Folders, etc.) are NOT considered repositories. Academia.edu, ResearchGate and similar platforms do not allow OA under the terms required and therefore are also NOT considered repositories.

For more information on OA, please consult GA Article 17 - Annex 5 (Communication, Dissemination, Open Science and Visibility), in particular the Annotated Model GA provisions.

Licensing requirements and IPR:

Scientific publications must be licensed under the latest available version of a Creative Commons Attribution International Public License (CC BY) or an equivalent license. For monographs and other long-text formats the license may exclude commercial uses and derivative works (as in CC BY-NC, CC BY-ND or CC BY-NC-ND or equivalent licenses).

For more guidance, including an explanatory checklist of the rights conferred by the above licenses that will help researchers to understand publisher-equivalent licenses, see the HE Program Guide.

Beneficiaries (or authors, where the case) must retain sufficient IPR to be able to comply with their OA requirements.

⚠ The obligation to ensure open access under the conditions set out in the Grant Agreement precedes any subsequent publishing agreement and is therefore a prior obligation with respect to such agreements.

Best practice: Beneficiaries/authors retain the copyright on their work, and insofar as possible, grant non-exclusive licenses to publishers. To facilitate this, beneficiaries should put in place institutional policies to ensure copyright retention by authors and/or beneficiaries and compliance with the OA requirements.

To help you find publishing venues that comply with HEU OA requirements, you can use:

- Journal Checker Tool (Check which publishing options are supported by your funder's OA policy)— can help to determine whether a specific publishing venue allows compliance with the OA obligations of HEU
- Directory of Open Access Journals (DOAJ) — can help to identify full OA journals that allow OA publishing under CC BY or an equivalent license

- Open Research Europe (ORE) — OA publishing platform of the EC, allows automatic compliance with the HE requirements.

2.3.4 Visibility of Funding

Project parties are obligated to use the EU emblem when publishing and/or presenting work carried out under the GuardIAS project (GA Article 17.2-17.3). Unless the Agency requests or agrees otherwise, or unless it is impossible, any dissemination of results (in any form, including electronic) must display the EU emblem. This includes conferences, seminars, information material (such as brochures, leaflets, posters, presentations, etc.), including electronic form via SM, etc. and any infrastructure, equipment or major result funded by the grant. When displayed in association with another logo, the EU emblem must have appropriate prominence. For the purposes of their obligations under this Article, the project parties may use the EU emblem without first obtaining approval from the Agency. This does not, however, give them the right to exclusive use. Moreover, they may not appropriate the EU emblem or any similar trademark or logo, either by registration or by any other means.

Any communication or dissemination activity related to the project must include the following EU emblem and funding acknowledgement.

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2.4 General Data Protection Regulation (GDPR) Implications

The GDPR (EU 2016/679) provides enhanced protection to individuals' data privacy rights. Personal data can be names, email addresses, job titles, phone numbers, and anything that allows identification of an individual. Organizations storing or using personal data (anything that allows identification of an individual) must clearly disclose what data is being collected and how, why it is being processed/used, how long it is being retained, and if it is being shared with any third parties.

2.4.1 GDPR compliance (website and events)

The GuardIAS project website managed by IOLN, once fully developed will be fully compliant with GDPR by incorporating a Privacy Policy and Cookie Notice informing website visitors about what GuardIAS does with any personal data gathered. Photographs and videos taken at GuardIAS project events, workshops, meetings and promotional activities will comply with the GDPR through the use of consent forms to be signed by all persons involved when relevant. Personal data collected at events will be stored on secure databases and will not be used/shared for any other purpose.

3 Dissemination, Exploitation and Communication – DEC Plan overview

The DEC Plan of GuardIAS aims to **maximise the uptake, visibility, and societal impact** of the project's outputs on IAS management. It outlines specific dissemination, exploitation, and communication strategies and activities for effectively sharing project outcomes, enhancing their impact, engaging stakeholders, and fostering collaboration with relevant communities. The DEC Plan will be evaluated for its effectiveness at EC reporting stages and adjusted if needed. The objective of this document is to elaborate the DEC plan and guide its implementation.

The DEC Plan is built around five guiding questions — the 5Ws — which help structure and optimise outreach efforts:

1. Why – Defining the purpose and significance of Dissemination, Exploitation and Communication activities.

2. Who – Identifying the target audiences for engagement and outreach.

3. What – Determining the specific content, knowledge, and results to be shared.

4. Where & How – Selecting appropriate tools, channels, and materials for effective dissemination and communication.

5. When – Establishing a timeline for implementing activities throughout the project lifecycle.

3.1 Why

The DEC Plan forms a central component of the GuardIAS project. Its main purpose is to ensure that the knowledge, tools, and innovations developed during the project are effectively shared, applied, and promoted, maximising their value and long-term impact.

At the heart of the DEC Plan is **Communication**. This component focuses on raising awareness about the project's goals, activities, and relevance to society. It involves delivering key messages in an engaging and accessible way, using public-friendly formats such as SM, press releases, websites, and visual storytelling. The aim is to ensure that the project is visible, understood, and supported by the general public, media, and wider community.

Complementing this is the pillar of **Dissemination**, which is concerned with the structured and professional sharing of the project's results. This includes publishing scientific papers, presenting at conferences, hosting workshops, and producing technical briefs. Dissemination targets the research community, policymakers, NGOs, and practitioners, ensuring that findings are openly available, reusable, and can influence ongoing work across sectors and disciplines.

The third core element is **Exploitation**, which focuses on enabling the practical use and uptake of the project's results. This includes integration of methods and tools into public policies, development of commercial applications, and embedding new practices into institutional workflows. Exploitation ensures that innovations—such as restoration toolkits, digital monitoring platforms, or stakeholder engagement protocols—are not only developed, but actively used to drive change in real-world contexts. It also includes identifying Intellectual Property (IP), defining ownership, and supporting pathways for scalability,

replication, or market introduction, and foresees a strategic plan for ongoing exploitation of the project outcomes beyond the lifetime of the project.

Together, these three components — Communication, Dissemination, and Exploitation — ensure that the project's outputs are not only seen and understood but also used and sustained. They form a powerful strategy to extend the project's reach, deepen its impact, and promote the adoption of solutions that address the urgent environmental and societal challenge of managing aquatic IAS and mitigating their impacts.

The GuardIAS DEC Plan is a living document that will follow the evolution of the project from start to finish. Its effectiveness will be evaluated at EC reporting stages by the consortium and adjusted if needed.

3.2 Who

A robust DEC plan begins with a clear understanding of the target audience — the individuals, groups, and institutions that the project intends to reach, inform, influence, or involve. In the context of GuardIAS, these audiences are diverse, spanning multiple sectors and societal levels. Reaching them effectively requires not only identifying who they are but also tailoring messages and tools to suit their unique roles and interests. GuardIAS target groups are:

Key policy stakeholders, including national and statutory authorities responsible for implementing various directives and regulations (IAS Reg., MSFD, BHD, WFD, Biodiversity Strategy, Restoration Law); Regional Seas Conventions; International Maritime Organisations; European bodies (EEA, DG-ENV, DG-MARE); environmental NGOs; policy advisors. These actors are key to integrating the project's outputs into policies, regulations, and governance mechanisms. Engaging them, calls for clear, concise, and evidence-based tools such as policy briefs, technical recommendations, and involvement in policy workshops or advisory panels.

Industries and professions related to the introduction and spread of IAS, such as shipping, aquaculture, fisheries, pet and aquarium trade. Their involvement is crucial for effective IAS mitigation strategies.

Other innovation actors, such as small and medium-sized enterprises, technology developers, and companies involved in environmental monitoring or biosecurity. These stakeholders play a critical role in scaling and commercializing innovative outputs. To reach this audience, the project may employ business-oriented communication tools, demonstration events, and opportunities for technology transfer and collaboration.

Scientific community includes academic researchers, research institutes, and early career researchers focusing on the study of IAS and their impacts on biodiversity, ecosystem services, and human health, and who rely on cutting-edge knowledge to advance their work. Scientific publications in open-access journals, presentations at academic conferences, and accessible data repositories are essential for engaging this audience and facilitating the replication, validation, and evolution of project results.

Aquatic Managers and Control Officers, includes environmental managers, protected areas management bodies, aquatic monitoring and control agencies, consultants, border control officers. Their practical expertise and field-level implementation capacity make them natural adopters of the project's tools, protocols, and best practices. They benefit most from applied formats such as training workshops, co-creation sessions, MOOCs, technical manuals, and implementation toolkits.

General public and citizen scientists includes individuals, community groups, educators, recreational users of aquatic ecosystems, like boaters or divers, and other members of civil society. Their involvement

supports broader societal awareness and contributes to data collection, behavioural change, and public ownership of environmental solutions. This *audience* is best reached through engaging and inclusive formats such as citizen science campaigns, storytelling via SM, educational games, infographics, and public exhibitions or events.

Youth and educational institutions. GuardIAS aims to engage with schools, universities, and educational bodies, inspiring and educating future environmental stewards and aquatic scientists. This group is best reached through the development of digital games, interactive tools, MOOCs, citizen science campaigns, and public events.

Finally, **media and communication multipliers** — including journalists, bloggers, science communicators, and digital influencers — serve as important amplifiers of the project's visibility. They help translate complex concepts into accessible narratives and expand the project's reach beyond academic or technical circles. Their engagement relies on timely press releases, media kits, engaging visuals, and stories that highlight the project's human and societal relevance.

To ensure impact, the DEC plan must go beyond identifying these groups by carefully adapting messages, language, tone, and channels to each audience. This includes choosing platforms they already trust and use (e.g., LinkedIn for professionals, YouTube or Instagram for the general public, Bluesky for scientists), and aligning the content with their expectations, motivations, and preferred formats. Such a targeted approach ensures that the project's messages are not only heard but also understood, shared, and acted upon.

3.3 What

As part of the DEC Plan, a comprehensive suite of materials, tools, and activities will be developed and delivered to ensure effective dissemination of results, broad stakeholder engagement, and long-term exploitation of project outcomes. These outputs are tailored to meet the needs of specific target audiences and to align with the overall project impact strategy.

3.3.1 Strategic documents & Monitoring activities

- **Dissemination, Exploitation, and Communication Plan (DEC Plan)**

A living document outlining the project's DEC strategy, including objectives, audiences, tools, KPIs, and implementation timeline.

Pre-Dissemination Requirements

- **Prior Notice Protocol**

For all types of Dissemination and Communication Activities (including oral and poster presentations, non-scientific and non-peer reviewed publications, etc.) where GuardIAS results or outputs are presented, the Prior Notice Protocol must be applied.

The main party (beneficiary or associated partner) involved in the dissemination of results from the GuardIAS project (owned by one or several parties) must give the other project parties at least 15 calendar days together with sufficient information on the results they will disseminate (GA Article 17 – Annex 5).

Prior notice of a planned scientific publication shall be given to the other project parties at least 30 calendar days before the submission. This relates to publications led by a GuardIAS party, directly linked to the GuardIAS work plan, and where GuardIAS is the main funding source. Any objection to the planned publication shall be made in accordance with the GA by written notice to the Coordinator and to the party(ies) proposing the dissemination within 15 calendar days after receipt of the notice. If no objection is made within the time limit stated above, the publication is permitted (CA 8.4.2.1; GA Article 17 – Annex 5).

PROTOCOL – Prior Notice Protocol

1. Parties proposing a dissemination activity (submission/communication/publication) should **inform all project parties of their intent at least 15 calendar days (note: at least 30 days for scientific publications)** before submitting/communicating/publishing using the 'Prior Notice email Template' below and upload/attach the planned submission/communication/publication (full draft, if possible, but at a minimum this must include an abstract including title, author(s), project parties involved and details on where it will be submitted/communicated/published and/or presented). In exceptional circumstances where a dissemination activity is planned unexpectedly in a shorter timeframe, then notice to other project parties must be as soon as possible. Dissemination and communication activities that have already been described in the GuardIAS Grant Agreement, have been extensively discussed in the kick-off meeting, and are part of the expected deliverables of the project, i.e., MOOCs, summer schools, virtual conferences, collective data articles, and policy briefs, are exempted from this procedure. Their discussion in the kick-off meeting and following GA meetings is deemed sufficient to fulfil the relevant provisions of the Grant Agreement (GA Article 17 – Annex 5) and the Consortium Agreement.
2. Project parties have **15 calendar days to object** if they can show that their legitimate interests in relation to the submission/communication/publication would be significantly harmed if the disclosure is permitted.
3. Any objection to the planned submission/communication/publication shall be made in accordance with the GA by written notice to the GuardIAS Coordinator and to the parties proposing the submission/communication/publication, **within 15 calendar days after receipt of the notice**. Any objection needs to be justified and precise suggested modifications given. An objection is justified if:
    a. It adversely affects protection of results/background of the objecting party
    b. Legitimate interests of the objecting party would be significantly harmed
    c. It includes Confidential Information of the objecting Party (CA 8.4.2.2)
4. If no objection is made within the above stated timeline, or if objections are addressed and accepted by the objecting parties, the submission/communication/publication is permitted.
5. If an objection has been raised, the involved parties shall discuss how to overcome the justified grounds for the objection on a timely basis (for example by amendment to the planned publication and/or by protecting information before publication) and the objecting party shall not unreasonably continue the opposition if appropriate measures are taken following the discussion. The objecting party is entitled to suggest specific amendments to the planned publication, provided, however, that each authoring party alone shall decide the final wording and content of its own text, once the objections of the objecting party have been addressed.

6. In addition to the above, parties must send a completed IP Assessment Form to ERINN (laureen@erinn.eu; avril@erinn.eu) latest 15 days in advance of the intended dissemination activity. Please see the IP Assessment Protocol below.

Prior Notice Email Template

Dear GuardIAS colleagues,

We have prepared a *[insert planned disclosure e.g., communication/publication]* to be submitted to *[insert communication/publication name/item]* / presented at *[insert event name/location]* on *[insert date].* Please see the *[insert document type/information]* attached.

In accordance with the Grant Agreement, any GuardIAS party who intends to disseminate their results must give prior notice to other project parties, who are then provided **15 calendar days to object** to the proposed dissemination activity. In exceptional circumstances where a dissemination activity is planned unexpectedly in a shorter timeframe, then notice to other project parties must be as soon as possible.

Objections are justified if:
a) The protection of the objecting Party's Results or Background would be adversely affected, or
b) The objecting Party's legitimate interests in relation to its Results or Background would be significantly harmed, or
c) The proposed dissemination activity includes Confidential Information of the objecting Party.

Any objection must include a precise request for necessary modifications. Please submit justified objections, with precise modifications, to *[main party email]* and the project coordinator (stelios@katsanevakis.com) within 15 days, before *[insert date].*

If no objections are received within this timeline, we assume that all parties agree with the dissemination of these results.

- **IP Assessment Protocol**

As outlined in the Grant Agreement (GA), an Intellectual Property (IP) check is implemented as part of the prior notice process, whereby parties who intend to disseminate results are asked to confirm that there is nothing exploitable in relation to the results they intend to disseminate, ensuring no IP is accidently exposed. Parties must send a completed IP Assessment Form to Task 6.3 lead ERINN who will check the form, with support from relevant WP leads where needed, as outlined in the protocol below.

PROTOCOL – IP Assessment Form

1. Parties proposing a dissemination/communication/publication activity involving **GuardIAS results** should send information on the intended activity to T6.3 lead ERINN (laureen@erinn.eu; avril@erinn.eu) with the completed IP Assessment Form for the respective results (DEC Plan Annex 5.1; GuardIAS Teams Task 6.3 Folder). Timeline = **latest 15 days in advance** of the intended dissemination. Dissemination and communication activities that have already been described in the GuardIAS Grant Agreement, have been extensively discussed in the kick-off meeting, are part of the expected deliverables of the project, and are not expected to be commercially exploitable, i.e., MOOCs, summer schools, virtual conferences, collective data articles, policy briefs, are exempted from this procedure.

2. ERINN review and communicate with the proposing party(s) in case of necessary clarifications. The assessment consists of:
    a. Preliminary screening i.e., checking if all information required from the party is included in the IP Assessment Form
    b. Reviewing of the activity (at least the abstract but ideally the whole publication draft or similar) to identify potentially exploitable knowledge
    c. Identification of potential conflicts of interest related to ownership, authorship and institutions involved, including entities or other projects.
3. If any information is lacking or insufficient, ERINN request further details from the proposing parties and the assessment period is suspended until the party responds with adequate clarification.
4. If ERINN indicates that the result(s) could (potentially) be considered commercially exploitable and this is confirmed by the coordinator, then the parties must carry out their best effort to protect and exploit the result and the planned activities should be postponed (GA Annex 5 Article 16; CA 8.4.2.2 - 8.4.2.4):
    a. In this case, firstly, ERINN will inform the proposing parties about this situation and request that the relevant parties (together with their technological transfer/IP legal officer(s)), confirm whether these results indeed are commercially exploitable and indicate whether there is an interest in exploiting such results, and how they want to proceed (each party institution will have a disclosure of invention system).
    b. If it is deemed that the result is commercially exploitable, and if no IP exploitation is envisaged by the owner(s) of the results, it is best practice to consider offering to transfer it to other project parties or third parties better positioned for the exploitation of the results and willing to seek their protection (making sure to comply with granting authority rights GA Annex 5 Article 16). In such case, the project parties' or third parties must accept to protect the results by written consent within 10 days to all project parties.
    c. If owner(s) of the results, other project parties or third parties do not assume the ownership and do not take the necessary measures to protect it, ERINN's assessment is complete with a recommendation in the IP Assessment Form. The IP Assessment Form is then signed by ERINN and sent to the proposing parties, with the Coordinator (stelios@katsanevakis.com) in cc.
5. If the intended dissemination or communication activity involving GuardIAS results does not involve exploitable results, ERINN's assessment is complete once the recommendation(s) is/are included in the IP Assessment Form, and it is signed by ERINN.
6. If there is any doubt on whether the result(s) could (potentially) be considered commercially exploitable, then ERINN share the completed IP Assessment Form with the PAB and ask them to support in the assessment (following the steps above)
7. If no exploitable information is identified, all documents (including the completed IP Assessment Form) are sent to the proposing parties, with Coordinator (stelios@katsanevakis.com) in cc to inform them that they can go ahead with the intended dissemination activity (submission/communication/publication) as planned.

Post-Dissemination Requirements

As part of the EU contractual requirements all Scientific Publications, Dissemination Activities and Communication Activities are reported as part of the Continuous Reporting of the project in the EC Funding and Tender Opportunities Portal (EC Portal).

- **Continuous Reporting**

An internal tool to track communication, dissemination, and exploitation performance against defined indicators, which is embedded in the **GuardIAS continuous reporting** file (available to all parties through GuardIAS Teams – Documents – General – Continuous Periodic Reporting)**.** All partners are requested to complete the GuardIAS continuous reporting dashboard every three months, while the UAEGEAN team is responsible for uploading the data onto the EC Portal.

All scientific publications (including articles in journals, publications in conference proceedings/workshops, books/monographs, book chapters, thesis/dissertations, etc.) must be uploaded to the EC Portal once they have been published, therefore project parties are required to notify the WP leaders (mariasini@marine.aegean.gr, catmccannocean@gmail.com), the coordinating team (stelios@katsanevakis.com, jennie@aegean.gr) and ERINN (laureen@erinn.eu; avril@erinn.eu) with relevant information (publication title, publication type, name of conference / journal, name of all authors, URL), in order to update the EC Portal, the project website, SM platforms, and other communication channels.

- **Event Metrics, and Indicators of Impact**

For all activities mentioned in Sections 3.3.2, 3.3.3, 3.3.4, leaders should collect the following participants' data:

- Type of GuardIAS activity
- Associated GuardIAS target group
- Participant name
- Age
- Gender
- Nationality
- Profession
- Affiliated institution / organization / company
- Interest to subscribe to the GuardIAS mailing list, and if yes email address
- Satisfaction level scale (very poor, poor, neutral, good, excellent)

This information must be uploaded to the **Event Metrics** file located in the GuardIAS Teams – WP6 – Task 6.1 folder, and WP6 leaders (mariasini@marine.aegean.gr, catmccannocean@gmail.com) and the coordinating team (stelios@katsanevakis.com, jennie@aegean.gr) must be notified. The collected data will be used to generate event metrics and impact indicators, which will support the evaluation of each event's effectiveness—both individually and collectively.

- **Impact Metrics Reports for DEC monitoring**

Internal summary reports providing a quantitative and qualitative analysis of DEC outcomes, including citation analysis, media impressions, and stakeholder uptake.

- **Annual Satisfaction Surveys**

A yearly internal questionnaire that will be distributed to partners before each annual meeting and will be discussed during the meeting.

- **Continuous Reporting of Intellectual Property Rights (IPR, Patents)**

GuardIAS parties are responsible for tracking their IPR resulting from the project. Whenever new IPR has been filed (the EC recommends filing with the European Patent Office), parties are required to notify the WP leaders (mariasini@marine.aegean.gr, catmccannocean@gmail.com), the coordinating team (stelios@katsanevakis.com, jennie@aegean.gr) and ERINN (laureen@erinn.eu; avril@erinn.eu) with the relevant information. ERINN can share the completed IP Assessment Form with the PAB (see IP Assessment Protocol above). **Project parties are responsible for uploading the required information in relation to their IPR directly to the EC Portal.**

Parties are required to provide the following details:

- Identification of IPR type and Confidentiality
- Type of IPR (Patent/Trademark/Registered Design/Utility Model/Other)
- Confidentiality (Yes/No)
- Application Title
- Embargo end date

Exploitation Requirements

- **Knowledge Management and Knowledge Transfer (KMKT)**

Methodology to ensure appropriate management of knowledge and IP generated by partners, with Knowledge Transfer Plans (KTPs) mapping the pathway to impact for all Key Exploitable Results (KERs). The Project Output Impact Plan Template will be available for all parties on the GuardIAS Teams Task 6.3 Folder. For more details on KMKT see section 3.4.3 below.

- **Exploitation Roadmap**

A strategic plan for the ongoing exploitation beyond the life of the project.

3.3.2 Communication

Digital & Print Communication Materials

- **Project Logo and Visual Identity Kit**
  Includes the project logo, colour palette and style guidelines to ensure consistent branding across all materials, templates, and roll-up banners. [KPI: 20+ roll-up banners]
- **Project website**
  A dedicated platform, which will also function as an online knowledge hub, offering access to project updates, resources, publications, tools, and interactive features (e.g., maps, games). [KPI: website active and updated for 5 years]
- **SM Profiles**
  Active presence on YouTube Channel and SM accounts (including Bluesky, LinkedIn), regularly updated with content tailored to each channel. [KPIs: 200+ GuardIAS posts, 1000+ GuardIAS SM followers]
- **Infographics & Short videos**
  Visually engaging summaries of key messages for use in outreach and stakeholder engagement [KPI: 5 infographics, 3 short videos of 2 min. duration with 20.000+ views]

- **Newsletters & Press releases**
  Periodic digital bulletins highlighting progress, milestones, and upcoming activities, targeted at subscribed stakeholders.

3.3.3 Dissemination

Scientific & Technical Outputs

- **Peer-reviewed publications**
  Publication of open access articles in high-impact journals, ensuring scientific visibility and credibility. [KPIs: 60+ open access articles with 1000+ citations during the project's lifespan, and an additional 1000+ citations over the two years following the project completion].
- **Scientific conferences and workshops**
  - Contribution to scientific conferences and workshops through oral or poster presentations. [KPIs: 50+ contributions to scientific conferences and workshops].
  - Organisation of special sessions through GuardIAS or contribution to special sessions organized by others in the framework of international conferences (e.g. ICMB, ICAIS, ECSA, NEOBIOTA). [KPIs: 3+ special sessions].
  - Organisation of virtual conferences. [KPIs: 3 annual conferences].

Educational material

- **Massive Open Online Courses (MOOCs)**
  Organisation of massive open online courses covering key topics of GuardIAS targeting university students. [KPIs: 5 MOOCs].
- **Summer schools**
  Organisation of summer schools targeting early career researchers. [KPIs: 3 summer schools].
- **Science for Young People**
  Publication of articles for young people in an open access scientific journal that delivers latest research outcomes to school students. [KPIs: 2 publications].

Policy related activities

- **Policy Dialogues**
  - Organisation of annual meetings with KCBD (including EASIN) and the UN Decade of the Ocean initiatives. [KPIs: 3 meetings].
  - Develop close links with other EU and national projects, working groups, networks, and other initiatives (e.g. One-STOP, MPA Europe, OBIS, GBIF, EuroGOOS, EU4Ocean, IOC-Unesco Ocean Literacy Portal, Networking Fridays, KCBD, Ocean Sampling Day, MarinePlan, MSP4BIO, ACTNOW, FutureMARES, MarineSABRES, REST-COAST, MARBEFES, AquaPLAN). [KIPs: links to 40+ projects, networks and initiatives].
- **Policy Briefs**
  Short impactful documents tailored to policymakers to influence environmental governance and IAS-related policy integration. [KPIs: 5+ policy briefs].

Public Events & Engagement Activities

Several public events and activities aiming to engage the general public will be organised in other WPs of the project.

- **eDNA sampling [**WP2/T2.4; WP5/T5.1; D2.4, D5.3**]**

Citizen science engagement events to collect high-quality eDNA samples. This will help establish and develop early-warning rapid-response systems (within T4.1) and identify invasion pathways (in T1.3). [KPI: Engage >100 citizens for eDNA sampling].

- **IAS detection and monitoring through a citizen science platform**
  Citizen science engagement through the iNaturalist platform to support with IAS detection and monitoring **[**WP2/T2.5; D2.3; KPIs: >100 people active on the EU IAS project in iNaturalist for aquatic species of EU concern**]**
- **Eradication and control actions**
  Engage citizens in eradication and control actions that will take place during the 11 case studies (e.g. recreational fishers participating in lionfish culling campaigns) [WP4/T4.2; D4.3]
- **BioArtBlitz events** [WP5/T5.1; D5.3]
  Organising artist-led performances and field activities, co-designed by biologists, artists, and humanities researchers, which aim to engage citizens in both creative and scientific ways to actively participate in better understanding and managing IAS. Such events will support CS activities for enhancing early warning and management actions in the case studies. [KPIs: 20 BioArtBlitz events].
- **Marina events for boaters and marina personnel** [WP5/T5.1; D5.3].
  A CS initiative that will engage boaters and marina staff through educational banners, habitat collectors for studying biofouling, open-lab activities in marinas, and Zooniverse project activities to identify alien species, encouraging active participation in monitoring and managing biofouling as a vector for alien species introduction. [KPI: Engagement activities in >20 marinas in Italy].
- **Initiation of a Zooniverse project** [WP5/T5.1; D5.3]
  All material collected via underwater video and sound records of aquatic IAS [WP2/T2.3], will be uploaded to a Zooniverse project (https://www.zooniverse.org/) called “Sounds invasive to you?”. Zooniverse is a people-powered research platform based on volunteers. With this new project, people can directly assist scientists to analyse video/audio recordings and isolate video fragments in which the aquatic IAS organism can be easily recognised, and the sound recorded. [KPI: Engage >1,000 citizens in the Zooniverse project].
- **Collaborative open access publications** to enhance collaboration with and engagement of conservation practitioners and CS networks [WP5/T5.2; D5.4]
- **Innovative applied games and related events [**WP5/T5.4, T5.5; D5.2, D5.6**]**
  Development of applied games focusing on selected IAS which will be designed for stakeholder engagement and development of species-specific management strategies and raising public awareness and literacy about the impacts of aquatic IAS and management options. The games will be presented and played with CS at game fairs, ‘Long Night of the Science’, and similar events. The games will be made openly available as playable online games, e.g. on Tabletopia, and linked to the GuardIAS website. [KPI: applied games created for at least 4 case studies used in stakeholder workshops to develop case-specific management strategies for at least 4 IAS, and at least 4 outreach events to raise public awareness].

3.3.4 Exploitation

- **Leveraging multiplier platforms**
  -Utilise already existing dissemination platforms where relevant, such as the Horizon Results Platform, the Horizon Results Booster, Innovation Radar and the extensive network of the project parties, to maximise the long-term exploitation and impact of the project results.

-Publication of new data and information layers produced will be delivered to European and other international data repositories EASIN, EMODnet, AquaNIS, WRiMS, and IUCN-EICAT.

- **Next generation training**
  Train university students and early scientists in various fields related to the monitoring, prevention, and management of invasive alien species (IAS). This will help create a substantial group of future experts in the field of aquatic invasions. [KPIs: 15 PhD students and Postdoctoral researchers]
- **Webinars & Training Sessions**
  Organise training courses and webinars for different stakeholder groups (e.g. aquatic monitoring and control agencies, border control officials, environmental managers, and consultancies) on the developed GuardIAS tools and methods to enhance their optimal use and application [KPIs: 100+ participants].
- **Stakeholder Workshops & Surveys**
  Co-creation of sessions, consultations, and thematic roundtables to gather feedback (through surveys), test tools, and foster collaboration. All tools and management actions will be co-developed with stakeholders to increase their relevance and uptake [KPIs: 8+ stakeholder workshops]
- **Digital Decision-Support Tools**
  Web-based platforms or applications supporting IAS management, monitoring, and scenario planning to support practitioners in IAS management and mitigation actions.
- **Datasets & Open Repositories**
  Freely accessible scientific datasets and protocols aligned with FAIR (Findable, Accessible, Interoperable, and Reusable) data principles.
- **Exploitation roadmap**
  The strategic plan that will be developed will describe in detail the exploitation tools and actions that will be used to ensure the long-term exploitation of project outputs beyond the life of the project.

These activities and platforms ensure the project's innovations, insights, and tools are effectively shared, adopted, and sustained across research, policy, practice, and public domains as outlined in Table 2.

Table 2. GuardIAS DEC outputs, their purpose, targeted audience and KPIs.

Type of Output	Purpose / Use	Target Groups	KPIs
1.Strategic documents and monitoring activities			
DEC Plan	Outline in detail and guide the DEC strategy	Project partners, EC reviewers	Living document evaluated at EC reporting stages
Continuous Reporting DEC Plan Dashboard	Track progress and impact of DEC activities	Project partners, EC reviewers	Filled in every three months
Impact metrics reports	Evaluate performance using quantitative and qualitative indicators	Project partners, EC reviewers	Three yearly reports
Knowledge Management & Knowledge Transfer (KMKT)	Ensures management of knowledge and IP generated by partners, mapping the pathway to impact for all Key Exploitable Results (KERs)	Project partners, PAB and innovation actors – All target/end users	D6.4 due in M36
Annual stakeholder surveys	Gather feedback and adjust strategy accordingly	Project partners	Three surveys

Type of Output	Purpose / Use	Target Groups	KPIs
Exploitation roadmap	Ensure long-term uptake and sustainability of project results	Project partners, EC reviewers	Single document
Policy briefs & position papers	Influence policy integration and decision-making	EU/national policymakers, public authorities	Five policy briefs
2. Communication			
Digital and print communication materials			
Project logo & Visual identity kit	Ensure consistent branding and professional presentation	Project partners, all external audiences	20+ roll-up banners
Project website	Central platform for sharing project aims, news, resources, tools, and updates	General public, media, stakeholders, researchers, educators, students	Active and updated for 5 years
SM profiles	Broaden outreach and engage target audiences in real-time	General public, media, stakeholders, researchers, educators, students	200+ posts, 1000+ followers
Infographics & short videos	Communicate key findings and promote engagement	General public, media, stakeholders, conservation practitioners, policymakers	5 infographics, 3 short videos of 2 minutes duration and 20.000+ views
Newsletters & press releases	Maintain engagement of stakeholders through regular updates	Registered stakeholders, researchers, practitioners	4+ Newsletters, 4+ Press releases
3. Dissemination			
Scientific and technical outputs			
Peer-reviewed publications	Disseminate scientific results to academic community	Researchers, universities, scientific networks	60+ open access articles with 1000+ citations during the three years of the project, and 1000+ citations over the two years following the project completion
Scientific conferences & workshops	Disseminate scientific results to academic community	Researchers, universities, scientific networks	50+ contributions to scientific conferences / workshops; Organisation or contribution to 3+ special sessions; 3 annual virtual conferences
Educational material			
MOOCs	Educate on issues regarding aquatic IAS	University students	5 courses
Summer schools	Educate on issues regarding aquatic IAS and new methodological tools	Early researchers	3 summer schools
Science for young people	Inform and engage	School students	2 publications
Policy related activities			
Policy dialogues	Inform, engage, advise and collaborate	Policymakers, EC representatives, advisory boards	3 annual meetings; develop 40+ links with other projects, networks and initiatives

Type of Output	Purpose / Use	Target Groups	KPIs
Policy briefs	Influence policy integration and decision-making	EU/national policymakers, public authorities	5+ policy briefs
Public events and engagement activities			
eDNA sampling	Educate and engage	General public	>100 citizens engaged
IAS detection and monitoring through citizen science platform	Educate and engage	Citizen scientists	KPIs: >100 people active on the EU IAS project in iNaturalist
Eradication and control actions	Educate, collaborate, engage	Citizens, fishers, practitioners	Eradication/control in >10 sites
BioArtBlitz events	Better understanding of IAS threats and need for management. Enhance early warning and management actions.	General public	20 events
Marina events for boaters and marina personnel	Encourage active participation in monitoring and managing biofouling	Boaters and marina personnel	events in 20+ marinas of Italy
Collaborative open access publications	Enhance collaboration and engagement	Conservation practitioners and citizen scientists	4+ publications
Innovative applied games & related events	Enhance engagement, development of species-specific management strategies, and raising public awareness and literacy about the impacts of aquatic IAS and management options	General public, stakeholders	applied games for 4+ IAS in 4+ case studies, and 4+ events
4. Exploitation			
Leveraging multiplier platforms	Maximise long-term exploitation and impact potential	Scientific communities, conservation practitioners, citizen science, policymakers	2+ platforms
Next generation training	Create a substantial group of future experts in the field of aquatic IAS	University students, young researchers	15+ PhD students and Postdoctoral researchers
Webinars & training sessions	Enhance optimal use and application of the developed GuardIAS tools and methods.	Various stakeholder groups (e.g. aquatic monitoring and control agencies, border control officials, environmental managers, and consultancies)	A total of 100+ participants
Stakeholder workshops & surveys	Co-develop tools, management actions to increase their relevance and uptake, and foster collaboration.	Conservation practitioners, regional authorities, policymakers	8+ workshops
Digital decision-support tools	Provide web-based platforms or applications to support IAS management, monitoring, and mitigation actions.	Environmental managers, policymakers, port authorities	2+ tools
Datasets & open repositories	Produce FAIR datasets and protocols	Research community, conservation practitioners, policymakers	2+ data repositories (e.g. Zenodo and GitHub)

3.4 Where and How

This Section describes in detail the different Tasks of the DEC Plan (Task 6.2-6.10), their purpose and content, the target audience, communication tools and paths, and sets specific KPIs, milestones and deliverables.

3.4.1 Task 6.1: Plan for the Dissemination, Exploitation and Communication (DEC) (Lead: UAEGEAN, Contributing: all)

The objective of this task is the development of a comprehensive DEC Plan (i.e. the current deliverable). The DEC Plan defines, oversees and guides the implementation of DEC actions, regularly monitors their progress, and provides updated guidance as necessary to ensure continued relevance and effectiveness. Part of the DEC plan is the development of a number of strategic documents and protocols to ensure the smooth running of the different tasks, whilst safeguarding IPR and KT. These will be implemented in line with the rules set by HEU and in accordance with the GuardIAS GA and CA. To support timely and efficient execution of the DEC Plan, a dashboard has been created and included in the GuardIAS continuous periodic reporting excel spreadsheets to track the performance against specific indicators that will be regularly updated from all project parties. In response, impact metrics reports will be produced so that all partners obtain regular feedback.

- *Target audience*: The DEC Plan is a living document for internal use among GuardIAS partners, to ensure regular DEC of project outputs.
- *KPIs*: Elaborated DEC plan fully implemented.
- *Milestones*: no milestones are associated with the DEC plan.
- *Deliverables*: D6.1 DEC plan [M6], D6.3 Report on impacts from the DEC activities [M36]. Its effectiveness will be evaluated at EC reporting stages by the consortium and adjusted if needed.
- *Indicators of Impact*: all KPIs are implemented, all Deliverables delivered on time.
- *Time plan for this Task*: see associated Section 3.5.1 and Gantt chart in Figure 31.

3.4.2 Task 6.2: Branding and DEC resources and activities (Lead: IOLN; Contributing: all)

The objective of this task is to create a cohesive and impactful brand identity for the project, including visual elements and messaging, and to disseminate project updates, engage stakeholders, and foster community involvement. All branding material and communication resources that have been developed are being described below.

Project Logo

The **provisional logo** that was initially designed for GuardIAS (Figure 1) was based on the concept of a shield to reflect the guarding element of the project. The colours selected, encompassed a range of blue tones that mirror the varying colours of the water, from freshwater to marine, and highlight the scope of the project across aquatic ecosystems.



Figure 1. Original GuardIAS Logo used in during the application process in 2024.

Upon the initiation of the project, work package leaders discussed the idea of designing a new logo, while a visual identity kit was being prepared. Consortium members voted that a new logo should be designed and provided feedback on what new elements they would like to be incorporated in the new design. Based on this feedback and the original design, five new logo designs were prepared for the Kick off project meeting in January 2025 (Figure 2).



Figure 2. Sample logos provided to the consortium during the project Kick-off meeting in January 2025.

These logos were shared with the consortium members, and posted on the project BlueSky account, to ask the public for their feedback (Figure 3).



Figure 3. Sample of a SM post asking for comments and feedback on the GuardIAS logos

Based on the consortium's votes and public feedback, a **final logo** was selected (Figure 4). The design retained the core shield shape and original colour palette, symbolising the project's identity and its focus on aquatic ecosystems. To emphasise the project's biotic emphasis and the diversity of invasive species, additional symbols were incorporated representing a fish (vertebrate), a shellfish (invertebrate), and an aquatic plant.



Figure 4. The final GuardIAS logos

The **branding guidelines** were then prepared in February 2025, along with a suite of alternative logo versions, including logos with different alignment, in greyscale, with or without text, and on a transparent background (Figure 5).



Figure 5. Examples of different logo versions

The branding guidelines also provided information on when and where the logos should be used, the primary and secondary font types and colour palette (Figure 6).

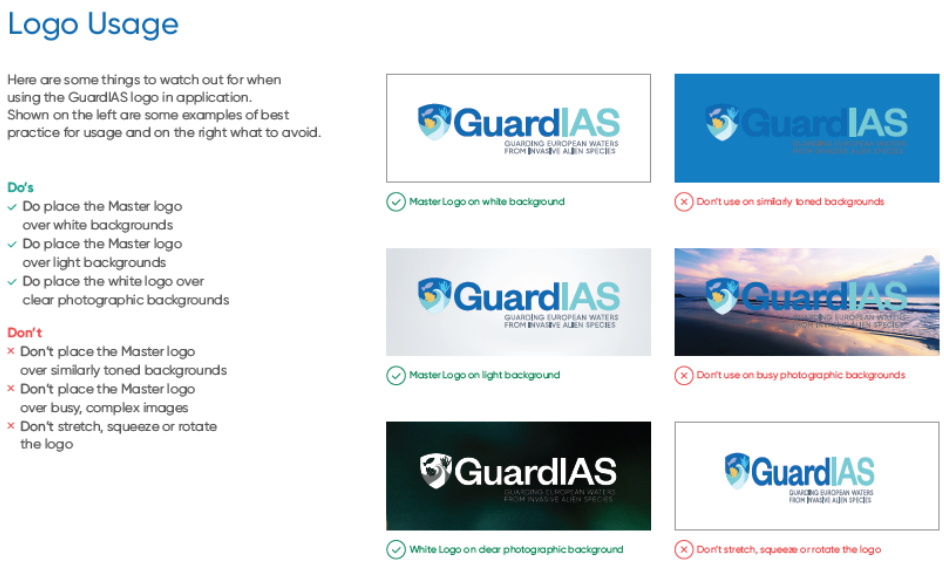


Figure 6. Dos and Don'ts for logo use - example of brand guidelines.

Guidelines on using the European Union Logo have been uploaded onto the GuardIAS Teams - Key Info – EU logos in order to make them available to project parties. While it is preferable that all parties use GuardIAS branded resources when disseminating the project's results (e.g. the GuardIAS PowerPoint templates when making a presentation), we recognise that some institutions require parties to use their own institutional branding for conferences and various presentations. To balance the interests of GuardIAS, and our contractual obligations to the EC, with various institutional requirements, we require the following to be included at minimum:

- The GuardIAS logo must be included on at least the Title Page and Conclusion/Thank You slide, however usage on all slides would be preferred.
- The EU emblem and funding acknowledgement (GA Article 17) must be visibly present on the first and last slide.

Visual Identity Kit

To maintain a consistent **visual brand identity**, key elements from the logo—such as wave motifs, blue tonal palettes, aquatic species, and landscape imagery—were prominently integrated into the design of banners, image and video frames, PowerPoint templates, document templates, and Zoom backgrounds.

When using the PowerPoint templates, choose to insert "new slide" and pick your preferred content template. Please respect all of the templates' format (background, font and layout) and always ensure that the correct funder logos and acknowledgements are present on any GuardIAS presentations, deliverables and reports etc.

The colour palette was applied systematically across all visual materials, while the typography—including font styles, headers, and bullet points—was carefully aligned with the design standards established on the GuardIAS website and SM platforms, ensuring a cohesive and unified visual presence.

A selection of these materials, all completed and uploaded to the GuardIAS Teams – Key Info – Logos, Templates, Media, are presented below (Figure 7-11).



Figure 7: Example of GuardIAS banners



Image 8: Samples of posters



Figure 9: Samples of tabletop signs



Figure 10: Sample zoom backgrounds

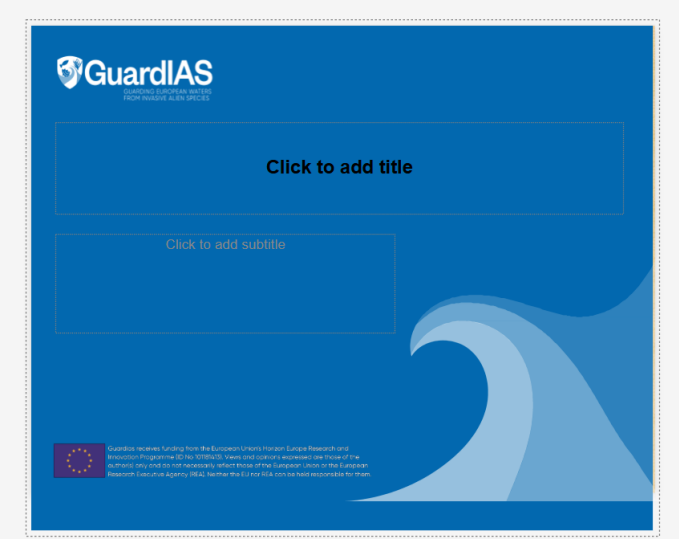


Figure 11: Sample PowerPoint Slide at a ratio of 4:3

Website

The **GuardIAS website** was designed to engage a broad and diverse audience, reflecting the wide scope of the project. Target users include the general public, media, stakeholders, researchers, educators, and students. Website metrics (e.g. number of views) will continuously be monitored. Despite the project's large scale, the website layout was intentionally kept simple and user-friendly to promote accessibility

and encourage interaction. Text content was tailored to suit each section's intended audience, ensuring clarity and relevance throughout.

The visual design followed the established branding colour scheme to ensure continuity, complemented by vibrant, high-quality imagery of freshwater and marine environments, enhancing the site's overall visual appeal.

Navigation was streamlined by limiting the number of tabs, keeping the interface clean and intuitive (Figure 12). Key sections were prioritised, including:

The Project – an overview of the project's goals and scope;
The Partners – information about the organisations involved in GuardIAS;
News and **Publications** – updates and key project outputs;
Join Us – a centralised hub for outreach and engagement activities.

The **'Join Us'** section was specifically designed to foster inclusivity and approachability, encouraging wider community involvement while also helping reduce menu clutter on the homepage.



Figure 12. The GuardIAS homepage central banner

The homepage also provides a basic overview of the GuardIAS project (Figure 13), links to EASIN and the Horizon Europe sister project OneSTOP as well as to all other partner institutes, and funding disclaimers.

The GuardIAS Project

GuardIAS is a three-year Horizon Europe project that started on January 1, 2025, which brings together a wide range of stakeholders and experts in Invasive Alien Species (IAS) management.

GuardIAS focuses on aquatic invasive alien species, those found in both freshwater and marine environments. The project aims to improve the detection and prevent the spread of invasive alien species in both marine and freshwater habitats using a range of novel methods – such as artificial intelligence (AI), environmental DNA, satellite imagery, underwater robotics and monitoring systems, and the development of an early alert system.

Information gained from the research will be used to increase public awareness regarding threats from invasive species spread, enhance public engagement, and enable decision makers to prioritise where and when to act.



Figure 13: Detail of the homepage presenting information about the GuardIAS project

'The Project' tab and its drop-down menu (Figure 14), provide links to the overview of the project, the distinct Work Packages (Figure 15), and the different Case Studies which focus on several aquatic and marine Invasive Alien Species.

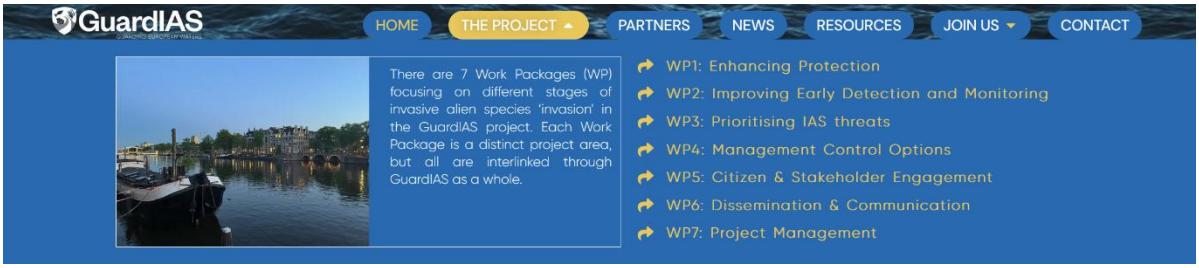


Figure 14: 'The Project' tab and its drop-down menu that provides links to the different Work Packages

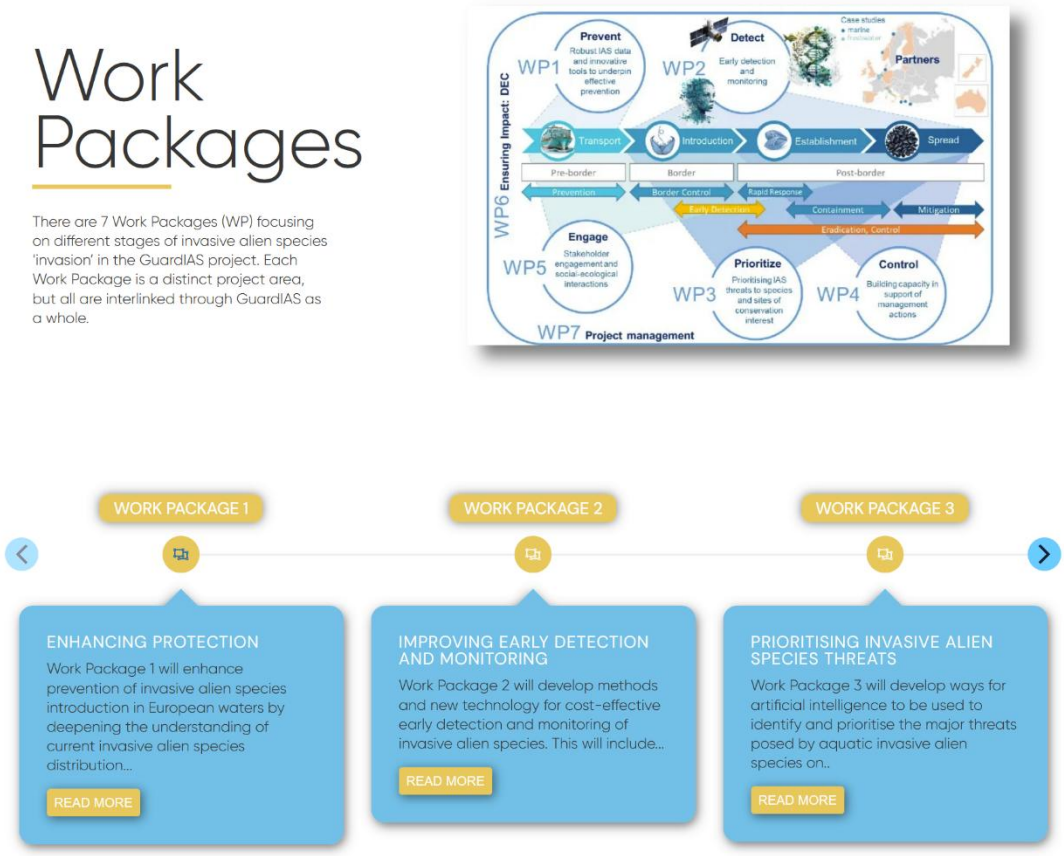


Figure 15. Links to the Work Package pages on 'The Project' webpage

A dedicated page per Work Package provides further details to the different Tasks and Deliverables (Figure 16).



Work Package 1 - Enhancing Protection

Work Package 1 will enhance prevention of invasive alien species introduction in European waters by deepening the understanding of current invasive alien species distribution and their pathways of introduction and spread, modelling and prioritising risk factors, and forecasting future incursions. This will involve data integration and improving risk assessments for robust prevention strategies and effective biosecurity measures. This Work Package will also explore nanotechnological approaches to innovative antifouling applications to provide practical prevention solutions to one of the major invasive alien species introduction vectors.

Figure 16: Example of the pages for specific Work Packages

Work Packages will contain detailed information about the Work Package, a short bio and interview with the Work Package leader/s, and links to their own webpages. In this way, information about the project is available to cater to several audiences – from general interest in the GuardIAS project, to more specific detailed information facilitating peer-to-peer interaction.

The 'Partners' tab details the different organisations involved in the GuardIAS project, displaying their geographical location and showcasing their logos, with links to their websites. This page was designed to provide visibility to the different partners and show the scope and breadth of the GuardIAS project.

The 'News' and 'Resources' tabs (Figure 17) enable key developments of the project to be found easily, and to facilitate the dissemination of project outputs.

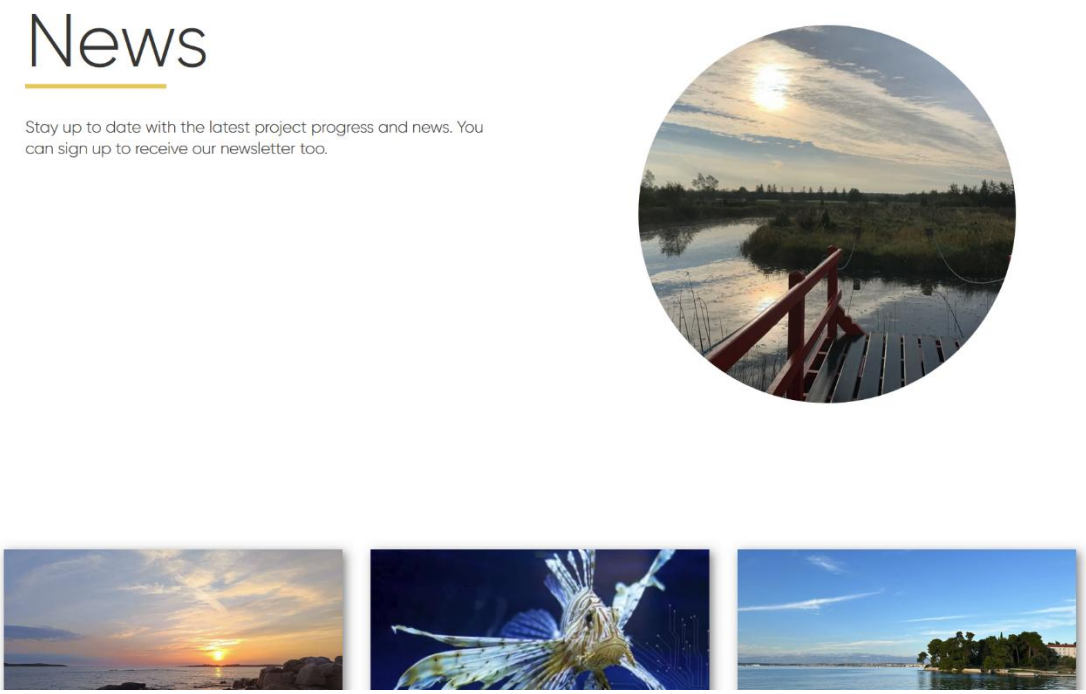


Figure 17: The layout of the 'News' page

The "Join Us" section features a dedicated drop-down menu with options for Conferences, Citizen Science activities, Summer Schools, MOOCs, and Job Opportunities related to the GuardIAS project. This was intentionally designed to promote inclusivity and approachability, making it easier for individuals to engage with and participate in the project's core outreach initiatives. By offering these varied opportunities, the section encourages active involvement and fosters a welcoming environment for all.

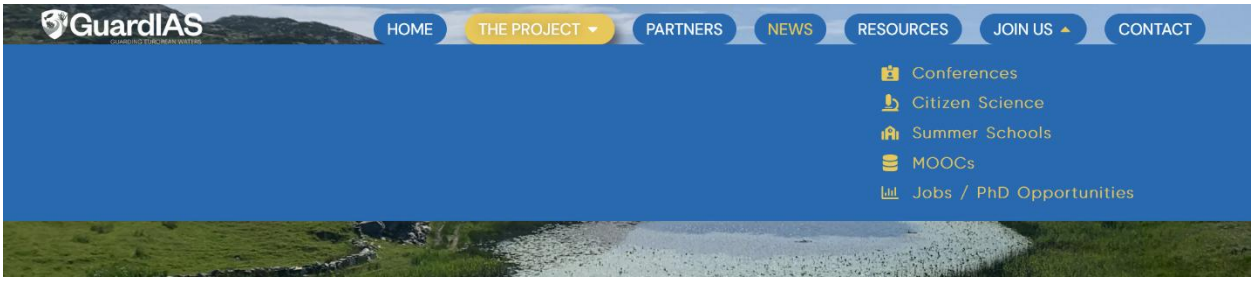


Figure 18: The drop-down menu of the 'Join Us' tab

Given the scale of the GuardIAS project, numerous News updates, Conferences, MOOCs, Citizen Science activities, Summer Schools, and other outreach events are expected across various Work Packages. To support this, the web developer has implemented a submission form (Figure 19) designed to streamline and simplify the process of publishing events and news by project partners, ensuring efficient and timely updates. The submission form is accessible to all project partners, allowing them to easily input details for their submissions. Submissions are not published immediately; instead, they are directed to a holding page where the Communications Team can review, edit, and finalise the content before it is published

online. This process ensures that all submissions are accurately tracked and allows multiple posts from various project partners to be published efficiently in a short timeframe.

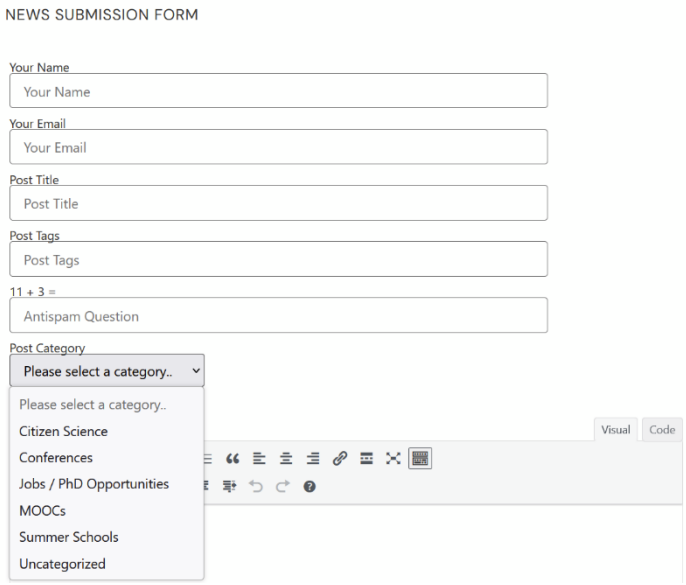


Figure 19: The submission form for the 'News' and 'Join Us' sections of the GuardIAS website

Given the scope of the GuardIAS project, the website has been developed in three key phases:

Phase 1: The GuardIAS homepage and basic structure were established, including the 'Home,' 'The Project' (with preliminary information on Work Packages), 'Partners,' 'News,' and 'Resources' pages. This phase was successfully launched by the end of February 2025.

Phase 2: The 'News' page was updated, and the 'Join Us' section was introduced, incorporating a tailored Submission Form. Additionally, a dedicated page regarding the actions of the different project Case Studies regarding different IAS was added to the 'The Project' page. This phase is set for completion by June 2025.

Phase 3: Detailed pages for each Work Package will be developed with input from Work Package Leaders. This phase is scheduled to be finalized by August 2025.

The website will be continuously updated throughout the GuardIAS project, utilizing the Submission Form and ongoing communication with the web developer. After the project concludes, the website will remain online for an additional five years, serving as a valuable public resource of research information on the subject and promoting the outputs of this publicly funded research.

SM Profiles

A LinkedIn account, a BlueSky account and a YouTube channel have been created to communicate and promote GuardIAS aims, actions, events and outputs. Moreover, a GuardIAS SM code of contact has been developed to facilitate SM posting by the different project parties.

PROTOCOL – GuardIAS Internal Code of SM Conduct

Participants should try to contribute to SM channels where possible. Support can be requested from IOLN.

General Rules

- Ensure the content is yours to share (research or opinions) or acknowledge the source accordingly.
- Ensure there are no IP issues.
- Ensure the content is yours to share (research or opinions) or acknowledge the source accordingly.
- Ensure there are no IP issues.
- Use appropriate tags and hashtags to acknowledge funding.
- Do not use offensive language, argumentative or illegal content, etc.
- If you communicate publicly about GuardIAS or GuardIAS-related matters, you must disclose your role within the project.
- Be professional, use good judgment and be accurate and honest in your communications; unprofessional language or behavior reflect poorly on the project, and may result in liability.
- Unless approved by the coordinator, your SM name, handle and URL should not include GuardIAS project's name or logo.
- Be mindful around controversial subjects, where emotions may run high e.g., politics. It is important to show respect for others' opinions.

LinkedIn / BlueSky

- Send the message you would like to communicate to IOLN who can post from the GuardIAS account on your behalf (for BlueSky max 280 characters). Ideally, include an image or short video to make it more visually appealing.
- Refer to GuardIAS by tagging the project (using @) in your own post; IOLN will always aim to repost such posts.
- Repost GuardIAS posts through your personal and institutional LinkedIn accounts.

Tips

- SM is becoming increasingly visual — post pictures, videos, GIFs or data visualizations.
- Engage with your audience using replies, reposts/shares or tags.
- Ask questions instead of making statements to drive conversation.
- Leverage existing SM presence e.g., the host institution, researchers, team members or other relevant organizations, and tag and follow relevant accounts, particularly EC accounts (i.e., Horizon EU, REA, EU Science Innovation)
- Follow the news and use trending hashtags where appropriate.
- Content could include the announcement of milestones, results, scientific publications, press releases etc. or when the project is featured at a conference or event.

The LinkedIn account (Figure 20) was created to share content and news with project partners, academic stakeholders, media and press, Early Career Ocean Professionals (ECOPs), other EU projects and governmental departments. This account was set up in January 2025.

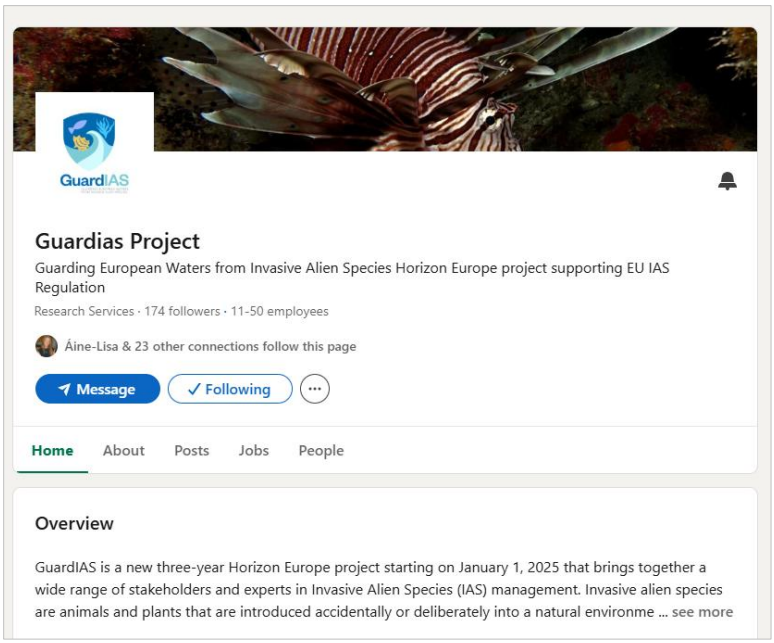


Figure 20. [GuardIAS LinkedIn](#) account homepage

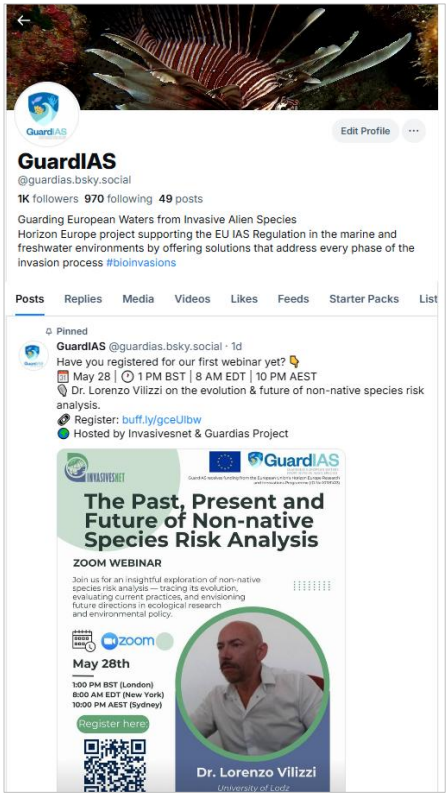


Figure 22. [GuardIAS BlueSky account](#) homepage and post



Figure 23. [GuardIAS YouTube channel](#) homepage.

A GuardIAS BlueSky account (Figure 21) has been set up to share news and content with the public, research scientists, and ECOPs and industry partners. This account was set up in December 2024 and has already more than 1,000 followers (June 2025).

A GuardIAS YouTube channel (Figure 23) has been set up to share video content and recordings of events. This account was set up in May 2025.

Infographics & Short videos

Infographics (5) and short videos (3) will be prepared to share the main aspects of the five key topics of the GuardIAS project, including (i) IAS prevention, (ii) early detection and monitoring, (iii) predicting and prioritising for management, (iv) eradication and control of aquatic IAS, (v) mitigating IAS impacts to threatened species. These will be used to engage audiences through SM (infographics), website (infographics and short videos) and YouTube (short videos).

Short videos (minimum 3) featuring key topics, such as those presented during the Annual Virtual Conferences (Section 3.4.7), specifically (i) Prevention of IAS introductions; (ii) Detection and monitoring of aquatic IAS through novel tools and CS; (iii) Management options for eradication and control of aquatic IAS, aiming to raise awareness and provide information on available tools.

Newsletters & Press releases

Newsletters and Press Releases will be created to disseminate project updates, engage stakeholders, and foster community involvement with interested parties. Each Newsletter will be in the form of a two-page PDF with multiple links providing updated summaries on the latest project events and outputs. Press releases will follow major project events and annual meetings. The first press release has already been issued in collaboration with the OneSTOP project, the sister project of GuardIAS, to provide information on the combined kick off meeting of the two projects that was held in January 2025.

It was published on several partner websites and news platforms including:

https://witnews.eu/ambitious-projects-to-tackle-invasive-alien-species-launched-in-europe/

https://greenformation.net/2025/02/10/greenformation-is-on-board-to-tackle-invasive-alien-species/

https://www.vlaanderen.be/inbo/en-gb/news-march-2025/official-start-for-guardias-and-onestop/

https://www.alphagalileo.org/en-gb/Item-Display/ItemId/254542?returnurl=https://www.alphagalileo.org/en-gb/Item-Display/ItemId/254542

Further Press Releases will be created after major GuardIAS conferences, including joint webinars and disseminated through news platforms, SM and the GuardIAS website.

Newsletters will be issued and disseminated every 6 months, starting in December 2025.

Other characteristics of Task 6.2

- *KPIs*: The KPIs for Task 2.2 refer to (a) the set-up of the website, YouTube and SM accounts, all of which have been completed, (b) the production of at least five (5) infographics and three (3) videos of 2 min duration with 20.000+ views, and the (c) the creation of more than 200 posts that will be directly linked to / in response to GuardIAS actions and key Deliverables.
- *Milestones*: M6.1 refers to the set-up of the website, YouTube and SM accounts, which was due in Month 2.
- *Deliverables*: Task 6.2 is linked to D6.1 DEC plan [M6], and D6.3 Report on impacts from the DEC activities [M36].
- *Indicators of Impact*: number of views of the website and the YouTube channel, number of followers in SM Platforms.
- *Time plan for this Task*: see associated Section 3.5.2 and Gantt chart in Figure 31

3.4.3 Task 6.3: Knowledge Management, Knowledge Transfer and Exploitation of Results (Lead: ERINN; Contributing: all).

3.4.3.1 Knowledge Management and Transfer Overview

The EC has identified the importance of improving knowledge transfer (KT) between public research institutions and third parties, including industry and civil society organisations, as one of ten key areas for action[3]. GuardIAS is employing a proven Knowledge Management and Knowledge Transfer (KMKT) methodology to effectively address this key aspect of facilitating project impact.

This methodology was originally developed in the FP7 MarineTT project (GA #244164) and further developed and applied by the H2020 COLUMBUS project (GA #652690). It has since been applied in many FP7, Horizon 2020 and Horizon Europe funded projects such as AQUAEXCEL, AQUAEXCEL2020, AQUAEXCEL3.0, ParaFishControl, SIMBA, ERGO, REvivED Water, SEALIVE, BIOGEARS, AquaPLAN, TechOceanS and WaterLANDS.

Knowledge Management (KM) is the process of identifying, capturing, organising, analysing and storing knowledge to ensure its availability to be transferred effectively to specific and relevant users.

Knowledge Transfer (KT) is the process of creating, organising, capturing/sharing/distributing knowledge to ensure its availability for future users, focusing the research being conducted on the wider needs of society and industry[4]. KT encompasses both commercial and non-commercial activities such as research collaborations, consultancy, licensing, spinoff/spinout creation, researcher mobility, and publications etc. KT aims to support mutually beneficial collaborations between universities, businesses and the public sector. The ultimate end benefit of successful KT is the application and influence of knowledge on targeted communities with greater impact (short and long term) across academia, industry and society.

Project/Knowledge Outputs (KOs) are described as "a unit of **knowledge or learning generated** out of a research project. It is not limited to de-novo or pioneering discoveries but may also include **new**

[3] https://ec.europa.eu/invest-in-research/pdf/download_en/knowledge_transfe_07.pdf
[4] https://ec.europa.eu/commission/presscorner/detail/en/memo_07_127

methodologies/processes, adaptations, insights, alternative applications of prior knowhow/knowledge" *(Definition developed by ERINN staff in the context of the COLUMBUS project)*. KOs are not necessarily the actual final results of the research but may also include some of the methodology to achieve the end result, which could be an innovation per se for the entire field of research.

Key Exploitable Results (KERs) within GuardIAS are those KOs which have been deemed to be of **high priority** for project transfer actions. The means by which KERs will be identified is described in this section, but it is important to note that GuardIAS is not implying any sort of value judgement. Rather, it's simply using this distinction to allow knowledge that is of the most direct impact to the project, or is most feasibly transferable by the project, to be prioritised when assigning resources for transfer. By focusing on identifying KERs and transferring them when they have been assessed as having potential application and impact, it is possible to fast track them, impacting on target- and end-users external to the project.

End User(s) are the individual(s) who are identified as being in a position where they could feasibly **apply** a KO/KER and by doing so create the desired eventual impact of that knowledge. The KO/KER may need to **evolve** to reach the end user.

Target User is an individual(s) (organisations should be avoided where possible as specificity is crucial) whose position makes them a potential **stepping-stone needed** for a KO/KER to progress **towards an identified end user** and eventual impact. Target users are not only potential users of knowledge but also individuals whose application of the knowledge is likely to advance it down a Pathway to Impact.

A Knowledge Transfer Plan (KTP) / Pathway to Impact Plan is an informed **stepwise plan for achieving the identified eventual impact** of any piece of knowledge, regardless of whether this impact is achievable in the short, medium or long term. In GuardIAS these will be developed for all selected KERs. The KTP identifies the end user capable of producing the desired eventual impact and outlines a specific series of transfer activities to intermediate target users.

Eventual Impact is the ultimate **end benefit of the application** of the knowledge (KO/KER). It is defined as an overall enhanced situation, generally for society but it can also be research or industry specific. Eventual impacts can be the adoption of new technologies, products or innovation identified and refined within the project, or a change in protocols.

The KMKT of GuardIAS KERs is integrated into the project through WP6 and is based on regularly collecting KOs/KERs through structured templates and interviews with project parties responsible for developing the results. Collected results will be assessed by ERINN and the PAB based on criteria related to their innovation capacity, relevance to the sector, and expected impact. KTPs or Impact Plans will be developed for individual or clusters of KERs assessed as being of high potential for contributing to the project's objectives. This customised approach will increase the likelihood that: (1) KERs will be transferred and exploited successfully, and the result applied; (2) there is an increased potential for impact from the transfer; and (3) it is possible to measure and demonstrate the impact of the transfer.

ERINN will coordinate and collaborate with the PAB and other GuardIAS WPs to support our project's KT. All project parties will contribute to the project's KMKT activities by adhering to the protocols and assisting in the collection and analysis of KOs and the transfer of high potential KERs to end users.

The KMKT methodology consists of the following three overall phases and is further described in detail below:

- Collect and Understand
- Analyse and Validate
- Transfer and Exploit

The following subsections outline the stepwise process, which will be carried out within GuardIAS. This methodology will see KOs identified, collected, reviewed, and prioritised to project KERs with developed KTPs. Figure 24 below outlines an example of a Pathway to Impact. The following subsections will refer to Figure 24 to demonstrate how each step contributes to the development of this.

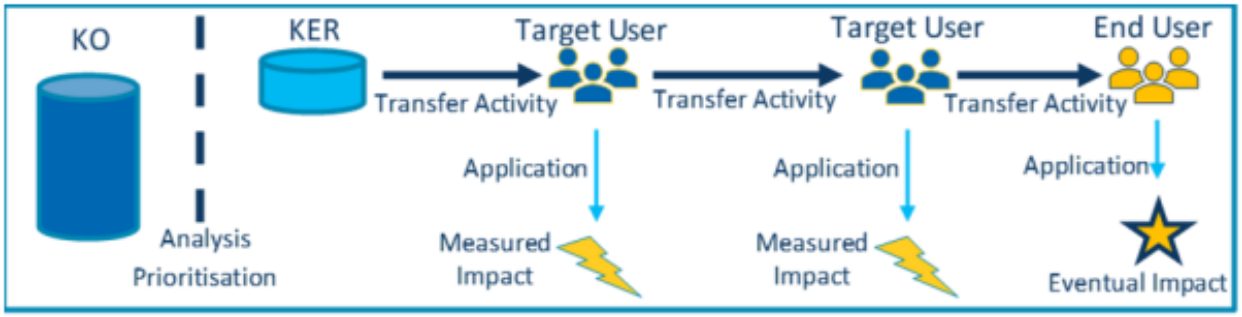


Figure 24: GuardIAS KMKT Methodology Pathway to Impact

3.4.3.2 Collect and Understand

Phase 1: Capturing KOs in an internal Project Output Impact Plan Template.

Effective KT relies on careful identification and description of KOs to ensure that all key information is provided which will result in effective transfer (Figure 25). Quality control measures are performed, to ensure that the project KO(s) can be clearly understood by others who may not be experts in the relevant disciplines. Each project party will treat information from other parties as confidential unless otherwise stated and not disclose it to other parties unless the information is publicly available. It is important for all project parties to note that project KOs are not only the final results of research, but they can also be part of the methodology to obtain the final result, which could be an innovation for a research area or process. Phase one aims to understand the positioning of a project KO to be better able to carry out impactful KT activities. It intends to help clarify how the project KO could be beneficial to different target and end users. This step identifies potential applications, target and end users, and the eventual impact of a project KO. This information also informs the development of Knowledge Output Pathways (KOPs) of KOs that progress to being a KER having been assessed as having high priority for project transfer actions.

It should be noted that KOs/KERs, especially those collected early in the project, are likely to continue to develop over the course of GuardIAS. Collected knowledge will be periodically reviewed by ERINN, and the output owners asked to provide updates if applicable. As the Project Output Impact Plan Template will be available on the GuardIAS Teams Task 6.3 Folder, parties will be able to advise ERINN if a given KO/KER needs to be updated.

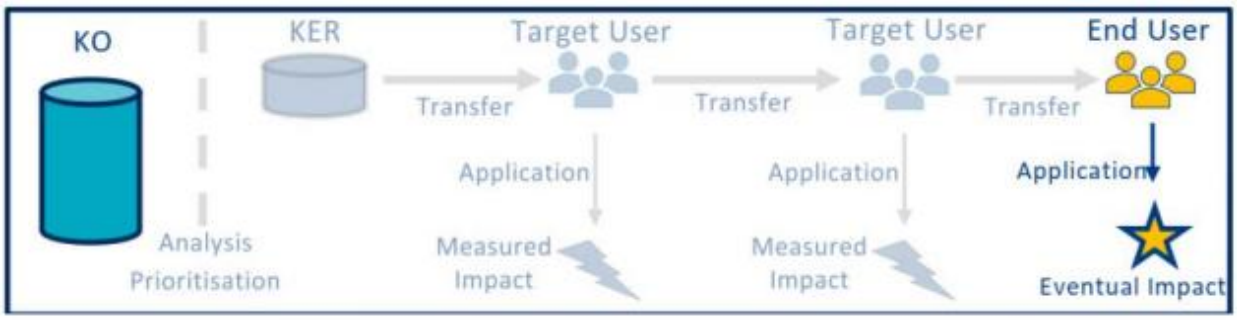


Figure 25: GuardIAS KMKT Methodology: Collect and Understand KO

PROTOCOL – Knowledge Collection

1. ERINN sends the Impact Plan Template to GuardIAS Task Leads who are requested to complete it and update it as necessary. If the Task Leader thinks another project party is better placed to provide the requested information, then they should send it on to the relevant person(s). ERINN may also arrange calls with the GuardIAS Task Leads throughout the project to discuss updates on work and any potential outputs.
2. For each identified project KO, all fields of the Template should be completed. Explanations are provided under each question. Completed Templates are sent to ERINN.
3. First assessment of the project KO is carried out by ERINN and feedback shared with the output owner, who will be asked to review for accuracy and suggest additions. ERINN may arrange a call with the output owner(s) for clarity on the information collected. Following the discussions, the output owner(s) will receive an update of the Template to check for accuracy.
4. Once all are satisfied with the accuracy of the information captured, the project KO(s) will be marked as "confirmed".
5. Next, ERINN carry out an IP review for each project KO collected. If an IP assessment is deemed necessary:
    a. The output owner is asked to complete an IP Assessment Form (DEC Plan Annex 5.1; GuardIAS Teams Task 6.3 Folder).
    b. IP Assessment Forms are reviewed by ERINN (with input from WP leaders and the PAB if necessary) who will provide guidance until all relevant parties are satisfied with IP protection to the future dissemination, communication, and exploitation of the project KO.
6. Once the IP assessment is completed, or if an IP assessment is not deemed necessary, project KO(s) will progress to the Analysis and Validate phase.

3.4.3.3 Analyse and Validate

Phase 2: The collected KOs are reviewed and assessed for potential application and impact.

Once validated, project KOs go through a Due Diligence process, whereby a more thorough examination and evaluation of the project KO, its applicability and readiness for transfer is investigated (Figure 26). Due Diligence is undertaken so that any factors that could affect the transfer potential (confidentiality,

competition, IPR) of the output and ultimately the uptake and impact of the knowledge can be identified. Following Due Diligence, project KOs are prioritised and those with potential to have impact will go through to the next step. An essential step in the GuardIAS KMKT methodology is the identification of output applications, potential impacts and respective end users (e.g., applications could be in various areas and sectors not just the one in the research area of the project) for each project KO which has been assessed as having high potential application and impact. Important aspects are prioritisation of high potential outputs and profiling target and end users to gain valuable data to inform successful Impact Plans. This is not a ranking of their importance but rather a method to help GuardIAS identify where to focus transfer and exploitation efforts. For those prioritised, the PAB will attempt to identify potential target users whose application of the knowledge would be of benefit in transferring it towards its eventual impact. Those project KOs that are validated and deemed to be of priority for the project will be re-labelled as KERs and progressed to the third phase – Transfer and Exploit. Any project KO that is not made a KER will continue to be periodically reviewed and any remaining at the end of the project will still be captured as evidence of project results for final reporting. The identification of target users in the analysis stage is critical to laying the groundwork for transfer and exploitation plans in the third phase. The exercises in this phase may also serve to identify potential stakeholders that are worth connecting with, even in cases where the knowledge may not yet be ready for transfer.

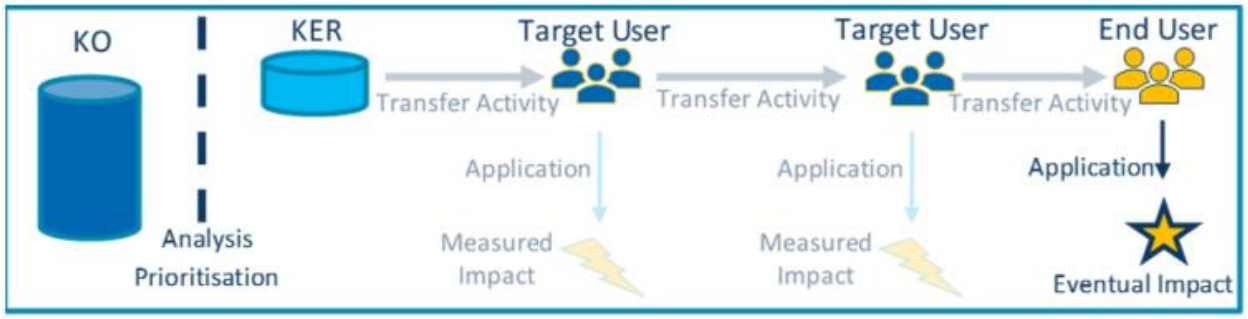


Figure 26: GuardIAS KMKT Methodology: Analyze and Validate KO/KER

PROTOCOL – Knowledge Analysis

At periodic intervals, ERINN will organise project KO and KER "expert analysis meetings" together with the PAB. The frequency and makeup of these meetings will be determined in collaboration with the Project Coordinator as well as based on the current status of knowledge collection and management in the project.

The expert analysis meetings will carry out a thorough examination and evaluation of the project KOs (collected so far) and their applicability and readiness for transfer. Particular attention will be paid to:

- Identification of all likely target and end users. We encourage project parties to be as specific as possible and innovative when determining potential end users.
- It is important to consider the following when profiling target and end users:
  - Understand the user's mandate or responsibilities
  - Consider their background knowledge, attitude, and practice in relation to the issue

- Understand their knowledge needs
- Understand what and who may influence their decisions
- Be aware of their preferred sources of information and knowledge.

- Identification of associated applications and impact potential.

Assess the Technology Readiness Level (TRL) that could inform the development of an appropriate project KO pathway to impact, where the output requires further research, validation or scale-up.

Experts in these meetings will be asked to:

- Confirm the accuracy and feasibility of transfer both within and beyond the project (but as a direct result of the project) for each presented output, to the best of their understanding.
- Assign to each project KO a ranking to determine whether it should be prioritised as a KER based on its current status.
- Discuss and identify potential target users to whom the knowledge should be transferred to progress it towards its eventual impact

After each expert analysis meeting, ERINN will revise the Impact Plan Template to identify any progression of knowledge (such as a project KO being re-labelled to a KER).

If any outstanding questions emerge from the expert analysis meeting, ERINN will reach out to the relevant output owners to attempt to provide clarification.

3.4.3.4 Transfer and Exploit

Phase 3: Carry out and report on KT activities; while measuring the impact of both the activity and the application of the KER by the User(s).

For each KER, a KTP/Pathway to Impact is developed. Implementing an efficient KTP that is tailor-made to the needs and capacities of specific target and end users (profiled in phase 2) will maximise the chance of successful transfer resulting in uptake and application. The key to success is achieved through fully understanding the target and end user and developing the KTP around them. There are a number of steps included in the KTP, and there are different downstream routes to reach its eventual impact. KTPs are the accumulation of numerous KT activities as represented in Figure 27.

KTPs will ensure KERs go through a Due Diligence process, whereby a more thorough examination and evaluation of the KER and its applicability and readiness for transfer will be investigated. Due Diligence will be undertaken so that any factors that could affect the transfer potential (confidentiality, competition, IPR) of the KER and ultimately the uptake and impact of the knowledge can be identified. The individual project party within GuardIAS best positioned to conduct the transfer will be identified and this phase will attempt to clearly describe how the impact of GuardIAS KERs will be measured, even after the project has come to a close.

The work carried out in this phase will not only be important for accurately reporting the full breadth of impact of the project to the EC, but it will also assist all parties in carrying out exploitation activities. Not every KER transfer plan will be able to be reasonably executed during the lifetime of the project but, by delivering clear plans, the KMKT methodology will help establish how exploitation actions within the project will feed into the overall impact of the project as a whole and help achieve the societal goals of GuardIAS.

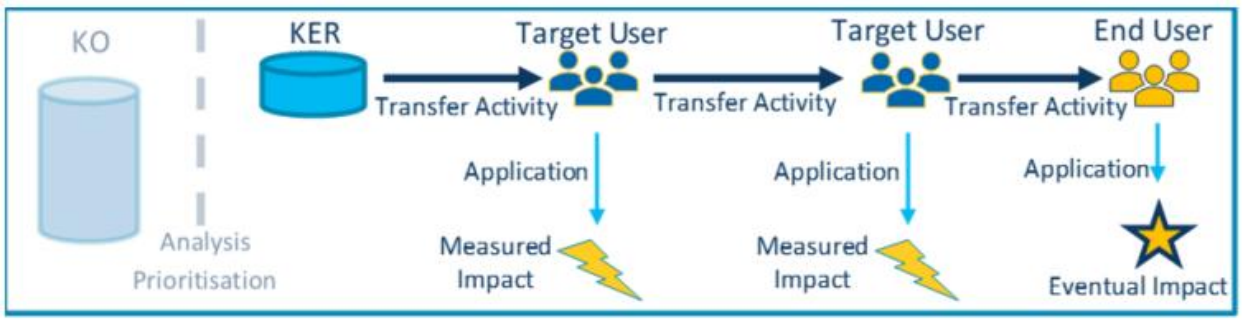


Figure 27. GuardIAS KMKT Methodology: Transfer and Exploit KERs

PROTOCOL – Knowledge Transfer and Exploitation

For any knowledge that has been determined to be a KER:

1. ERINN will collaborate with the PAB and the owner(s) of a KER to develop a KTP/Pathway to Impact for each KER. In particular, this effort will focus on the following considerations regarding the first target user(s) in the plan:

   a. Building on the impact potential identified in the validation and analysis step, ensure that a concise and compelling narrative for the opportunity/business case is developed.
   b. The technical level of the target user; the depth of information needed; and the style of language most effective for communicating with them.
   c. The background knowledge of the target user.
   d. Any preconceived ideas that the target user may have relating to the area of interest.
   e. Ways in which to relate the knowledge to examples with which the target user is familiar, or ones they can easily envisage.
   f. The level of evidence or validation that the target user requires.

2. ERINN will be responsible for drafting these plans, which will then be provided to the Project Coordinator and KER generating project party(s).

3. Once a KTP has been drafted and reviewed, it will be opened for feedback from the PAB.

4. ERINN will work with all relevant project parties to assist where possible in the translation of KTPs into exploitation activities. The nature of these exploitation activities will be highly dependent on the KER, the target user, the transferring party, the timeline, resources available, foreseen activities in the DoA, and other variable considerations. The exploitation activities themselves may be carried out within a range of externally focused tasks. Exploitation activities will also be linked to Task 6.10: Project legacy – exploitation of results beyond the lifetime of the project.

- *Target audience*: Task 6.3 refers to all project partners, with the aim of transferring outputs to GuardIAS end users e.g., aquatic scientists and managers, early career researchers, protected areas management bodies, aquatic monitoring and control agencies, border control officers, marina managers, vessel owners, shipping industry.
- *Milestones:* No Milestone are associated with this Task.

- *Deliverables*: At the end of the project, the KMKT activities and achievements of GuardIAS will be reported by ERINN as part of the D6.4 Report on impacts from DEC activities which is led by UAEGEAN and due in M36 – December 2027. Within the report the KOs and KERs generated and their associated KTPs and activities will be outlined.
- *Indicators of Impact*: The success of transfer plans and activities will be captured both quantitatively and qualitatively. The progression of knowledge along the pathway to impact will also be tracked using Impact Readiness Levels (IRL). These metrics capture how 'actionable' knowledge is within the relevant societal, policy or industrial contexts they are aiming to influence.
- *Time plan for this Task*: see associated Section 3.5.3 and Gantt chart in Figure 31.

3.4.4 Task 6.4: Educational MOOCs (Lead: UNIPV; Contributing: UAEGEAN, UNIFI, IECS).

Five Massive Online Open Courses (MOOCs) will provide accessible and interactive learning experiences, engaging participants in challenging their perceptions, improving their understanding and developing new skills. GuardIAS MOOCs will address the following 5 key topics: (i) IAS prevention, (ii) early detection and monitoring, (iii) predicting and prioritizing for management, (iv) eradication and control of aquatic IAS, (v) mitigating IAS impacts to threatened species.

Each MOOC will be composed of several teaching units, which will include definitions, regulations, case studies taken from scientific literature and other external resources, as well as the updated information and insights gained during the GuardIAS project. Highly engaging video content (e.g. cartoons, animations, interviews, mini documentaries) will be obtained from external resources or will be specifically developed during GuardIAS. Short self-evaluation modules will be distributed along each MOOC, in the form of open questions, multiple-choice questions, species identification through images, etc. Successful participants who have completed all teaching units per MOOC and have passed the final verification test will be accredited a digital open badge accreditation system.

MOOCs will be hosted by the UNIPV lifelong learning platform and linked to the GuardIAS website, and all MOOCs will be in English. Attendance to GuardIAS MOOCs will be promoted (i) during stakeholder engagements activities, (ii) by all the Higher Education Institutions of the GuardIAS consortium, (iii) through the GuardIAS official website as well as the EASIN website, (iv) through platforms like Ocean Teacher Global Academy and the European Global Ocean Observing System; (v) through SM.

The first MOOC (MOOC1 - IAS prevention) is under way. The draft content of MOOC 1 has been approved by involved partners, while additional material and resources have been identified. A 'GuardIAS-branded' MOOC character and video has been developed through a contract with an external service (4Draw; Figure28).



Figure 28. GuardIAS MOOC cartoon character

- *Target audience*: Environmental managers, protected areas management bodies, aquatic monitoring and control agencies, consultants, border control officers. Educational institutions (including teachers, lecturers, master and PhD students).
- *KPIs*: over 5000 trainees.
- *Milestones:* Milestone M6.2 which is due in Month 30, refers to the release of Five MOOCs every six months (i.e. Month 6,12,18,24,30).
- *Indicators of impact*: number of trainees from different target groups and countries.
- *Deliverables*: Task 6.4 is linked to D6.3 Report on impacts from the DEC activities [M36].
- *Time plan for this Task*: see associated Section 3.5.4 and Gantt chart in Figure 31.

3.4.5 Task 6.5: Policy briefs (Lead: UAEGEAN; Contributing: all).

Policy briefs are short, targeted documents that translate the project's scientific findings and practical outputs into actionable insights for policymakers and regulatory bodies. They aim to bridge the gap between research and policy by presenting evidence-based recommendations in a concise, accessible format. The objective of this task is to develop comprehensive and concise policy briefs for each policy-relevant KER (as established in T6.3) that will effectively communicate the outcomes of the project to key stakeholders and the broader community. Overall, policy briefs will be aligned with major policy milestones (e.g., EU Biodiversity Strategy, IAS Regulation), will address specific policy challenges or opportunities related to invasive alien species (IAS) management, and will summarise key results, implications, and proposed actions. They will be co-developed with stakeholders and will be reviewed by the PAB.

- *Target audience*: The policy briefs will be tailored to the needs of EU, national, and regional authorities, to support the uptake of project outcomes in environmental policies, biodiversity strategies, and legislative frameworks.
- *KPIs*: A minimum of five (5) policy briefs will be produced.
- *Milestones:* there are no Milestones associated with Task 6.5

- *Deliverables*: Task 6.5 is linked to D6.2 [M35] and D6.3 Report on impacts from the DEC activities [M36].
- *Indicators of impact:* number of downloads, number policymakers and stakeholders, number of countries where the policy briefs are distributed.
- *Time plan for this Task*: All policy briefs are planned to will be delivered from the end of the second project year to the concluding project months in order to include all the new knowledge gained and the new tools developed during the project (see also Section 3.5.5 and Gantt chart in Figure 31).

3.4.6 Task 6.6: Summer Schools (Lead: UAEGEAN; Contributing: all).

The primary objective of this task is to design, plan, and implement a series of summer schools intended to deliver advanced training and foster knowledge exchange among young researchers. These events will focus on the core themes, methodologies, and outcomes of the project, thereby strengthening participants' comprehension of the subject matter while promoting collaboration, capacity building, and the establishment of research networks.

The content of each summer school will evolve progressively, reflecting emerging findings and developed in collaboration with external projects to broaden expertise and encourage a multidisciplinary approach. The summer schools will be conducted through in-person lectures and workshops that introduce new tools and applications, featuring prominent speakers from the GuardIAS project and partner initiatives. Communication and promotion will primarily occur through the project's website and affiliated SM channels. Over the project's duration, three summer schools will be organised, one per year, serving as key milestones.

The first summer school was titled "Artificial intelligence and citizen science in monitoring and assessing biodiversity and invasive species at sea", it took place at the San Sebastian Aquarium, Basque Country, Spain, on 03-05 of June 2025 (Figure 29). It was organized in collaboration with the projects GES4SEAS, OBAMA-NEXT, BioBoost+, ANERIS, and POMP. It hosted key speakers from GuardIAS project as well as from the other associated EU projects.

The main objective of Summer School 2025 was to present, both theoretically and practically, different tools and methods for monitoring and assessing biodiversity and alien species, using among others, artificial intelligence, robotics, eDNA, citizen science, and the use of the CIMPAL index for assessing the cumulative impacts of alien species. To achieve this objective, we have organized the school in three days, sharing the experiences from scientists participating in different projects. The Summer School was very successful with 48 attendees from 19 countries (Figure 30).

- *Target audience*: The target audience comprises early-career researchers, particularly doctoral candidates and postdoctoral fellows.
- *KPIs*: Three (3) summer schools will be organised.
- *Milestones*: Task 6.6 is associated with Milestone 6.3 which refers to the realisation of the three summer schools over the three years of the project.
- *Deliverables*: Task 6.6 is associated to D6.3 where all DEC activities and their impact will be described in detail.
- *Indicators of impact*: number of trainees, number of participating countries.
- *Time plan for this Task*: see associated Section 3.5.6 and Gantt chart in Figure 31.



Figure 29. Announcement and program of the 1st summer school



Figure 30. Trainees and trainers of the 1st summer school

3.4.7 Task 6.7: Annual virtual conferences (Lead: INVASIVESNET; Contributing: all).

This task will plan, and host annual virtual conferences focused on aquatic IAS management, combined with thematic workshops. These conferences aim to bring together experts, researchers, and stakeholders to share knowledge, present research findings, foster collaboration, and facilitate discussions.

The themes of the three conferences will be: (i) Prevention of IAS introductions and biosecurity risk assessment; (ii) Cost-efficient IAS detection and monitoring: novel tools and CS; (iii) Management options for eradication and control of aquatic IAS. Each conference will have keynote speakers, time slots for oral presentations and posters or graphical representation of research. Moreover, one or more workshops will be organised at the end of each virtual conference related to the relevant theme. There will also be a podcast series of three podcasts per year in association with each conference theme.

Promotion and information regarding the registration process and abstract submissions will take place via the GuardIAS website. Moreover, conferences will be promoted through INVASIVESNET and GuardIAS SM and its members/contact networks.

Regarding the progress of this Task, to date the Conference Steering Committee has been established, and the first meeting took place on May 2, 2025. This meeting initiated planning for the first virtual conference to be held in November 2025. There is a plan established for conference delivery including a timeline for 'save the date', call for abstracts, and review of abstracts (Table 2). INVASIVESNET will provide the opportunity to submit full papers of the oral or poster presentations after the conference which will be published Open-Access free of charge in the INVASIVESNET journals.

- *Target audience*: Virtual conferences are targeting experts, students, researchers and stakeholders involved in aquatic IAS management. Conferences are open to people involved in the GuardIAS project, the One-Stop project, and also to scientists and other stakeholders not directly involved in either project.
- KPI: Three (3) annual virtual conferences.
- *Milestones*: Task 6.7 is associated with Milestone 6.4 which refers to the realisation of the three virtual conferences over the three years of the project.
- *Deliverables*: Task 6.7 is associated with D6.3 where all DEC activities and their impact will be described in detail.
- *Indicators of impact*: Number of conference delegates per conference. See also Indicators of Impact in Continuous Reporting DEC Plan Dashboard.xlsx.
- *Time plan for this Task*: see associated Section 3.5.7 and Gantt chart in Figure 31.

3.4.8 Task 6.8: Training stakeholders on developed tools and lessons learnt (Lead: UAEGEAN; Contributing: UNIFI, IECS, KU-MRI)

This task is dedicated to the promotion of the wider and effective utilisation of the knowledge gained and the tools produced during the project. This will be achieved through a series of physical and remote courses that will be arranged in collaboration with other WPs. Their purpose will be to provide specific guidelines and training on the application of different tools, techniques and alternative approaches, while on-line tutorials will be produced to facilitate the long-term utilization of these outcomes.

The content of these training sessions will be decided during the third year of the project, as the concept of this task is the promotion of knowledge and tools that will have already been applied and tested during the project. The training courses will be promoted through the GuardIAS webpage and the associated SM platforms, as well as through direct communication with selected groups.

- *Target audience*: The main target audience are end-users, such as aquatic monitoring and control agencies, border control authorities, national and statutory authorities responsible for implementing the IAS Regulation, environmental managers, environmental NGOs, consultancies, shipping industry, and early career researchers, while training sessions will also be conducted for potential end-users in countries outside the European Union.
- KPI: At least four (4) training courses.
- *Milestones*: Task 6.8 has no Milestones.
- *Deliverables*: Task 6.8 is associated with D6.3 where all DEC activities and their impact will be described in detail.
- *Indicators of impact*: Number of attendees per stakeholder group (researchers, managers, authorities), number of participating countries.
- *Time plan for this Task*: see associated Section 3.5.8 and Gantt chart in Figure 31.

3.4.9 Task 6.9: Joint activities with international initiatives to maximise impact (Lead: NORD; Contributing: UAEGEAN, CSIC, IECS).

The aim in this Task is to ensure the widespread distribution and utilisation of the project's outcomes, strengthen international collaborations and foster engagement. This will be achieved via exchange of

information with international platforms focusing on aquatic data (e.g. OBIS and GBIF, IUCN GISD, GRIIS, community of practice Marine Biodiversity Observation Network (MBON Europe), aquatic literacy platforms, such as EuroGOOS, EU4Ocean, and IOC-UNESCO Ocean Literacy Portal, and other networks, such as Networking Fridays. For example, data from OBIS and GBIF will be used for research, and publications will be uploaded on both platforms. A connection with the KCBD will be established providing and harnessing data, and collaborations with initiatives under the UN Decade of the Oceans and ongoing international CS initiatives, such as the Ocean Sampling Day will be promoted. Direct communications will be made with members of the different networks. The project party NORD is leading MBON, hence once specific data needs have been set, it will contact MBON partners to provide information on alien records of any kind (e.g. to be used in eDNA sampling and analysis).

An excel spreadsheet providing all potential links/collaborations between the different WP tasks to the different platforms, networks, and initiatives will be distributed to all project partners in order to indicate the type of information exchange between the different international platforms and the different WP Tasks of GuardIAS. This excel will be accompanied by a short description of the type of data needs (i.e. data contribution, data extraction), and in which project action or task these data will be used.

Task 6.9 leaders are currently in discussions with OBIS regarding the display of native vs. introduced ranges of marine species. Additionally, communications with AquaNIS, EASIN, and WRiMS are underway through colleagues at GBIF and IUCN GISD, to determine the most effective ways to exchange metadata standards. Communications with AquaNIS, EASIN and WRiMS are underway through colleagues from GBIF and IUCN GISD to determine optimal ways for exchanging metadata standards.

- *Target audience*: International members of the Advisory Board and key stakeholders.
- KPI: Create links with at least seven international initiatives (i.e. GBIF, IUCN GISD, GRIIS, OBIS, MBON, AquaNIS, WRiMS)
- *Milestones*: Task 6.9 has no Milestones.
- *Deliverables*: Task 6.9 is associated with D6.3 where all DEC activities and their impact will be described in detail.
- *Indicators of impact*: >10 joint activities with international initiatives
- *Time plan for this Task*: see associated Section 3.5.9 and Gantt chart in Figure 31.

3.4.10 Task 6.10: Project legacy – exploitation of results beyond the lifetime of the project (Lead: UAEGEAN; Contributing: all).

The aim is to ensure the long-term distribution and utilisation of the project's outcomes, beyond the lifetime of the project. To achieve this, a survey will be conducted among the consortium partners and the advisory board to inquire for ideas and plans regarding the sustainable utilisation of project outcomes once the project concludes. The findings of the survey will be deliberated upon during internal workshops with project partners and the advisory board, with the objective of identifying a series of actions for sustainability.

- *Target audience*: Project partners.
- *KPIs*: A Project legacy report and a Strategic Plan that will outline the proposed methods to ensure sustainability and long-term exploitation.
- *Milestones*: Task 6.10 has no Milestones.

- *Deliverables*: Parts of the project legacy report and strategic plan will be included in the Policy Briefs of D6.2, whereas the analytical project legacy report and strategic plan will be presented in D6.3.
- *Indicators of impact*: Number of GuardIAS outputs with a clear exploitation plan, number of proposals / projects leveraging GuardIAS outputs.
- *Time plan for this Task*: see associated Section 3.5.10 and Gantt chart in Figure 31.

3.5 When

This section provides a brief description of the DEC Plan Gantt Chart for each WP6 Task.

3.5.1 Task 6.1 – DEC Plan

The DEC Plan (D6.1) will be submitted at the end of project month (M) 6, after being distributed to project partners for internal review at three weeks before the deadline date.

The DEC Plan Dashboard will be completed by project partners every three months from the official project initiation date to the end of the project (i.e. at the end of M3, M6, M9, M12, M15, M18, M21, M24, M27, M30, M33, M36).

The Impact Metrics Report will be produced at the end of each year (at the end of M12, M24, M36) based on the results of the DEC Plan Dashboard and will be distributed to project partners for feedback.
The final WP deliverable D6.3 Report on impacts from DEC activities will be submitted at the end of M36.

3.5.2 Task 6.2 – Branding and DEC Resources and Activities

Website Phase 1, SM Platforms and Branding Material were completed at the end of M2. Website Phase 2 will be completed by the end of M6 and M8, respectively. Website updates and SM posts will continuously be released following the evolution of the project.

Press Releases (minimum 4) will be issued soon after the annual project meetings (end of M1, M9, M22) and at the end of the project (M36) in order to provide short summaries of the project progress.

Newsletters (minimum 4) will be issued on an annual basis (end of M12, M24, M30), and at the end of the project (M36), to provide project updates with links to all the different activities that have been carried out.

Infographics (minimum 5) will be released soon after the completion of each MOOC (i.e. end of M7, M13, M19, M25, M31), to summarise key aspects covered by each MOOC, or other important project aspects.

Short videos (minimum 3) will be released one month following the Virtual Conferences (M12, M22, M35) as they will be covering the topics presented during the Virtual Conferences.

The aforementioned DEC Branding Resources and Activities and their outputs will be analysed in detail in the final WP deliverable D6.3 Report on impacts from DEC activities will be submitted at the end of M36.

3.5.3 Task 6.3 – Knowledge Management

KOs will be collected from partners approximately every six months starting from Month 12 (i.e. M12, M18, M24, M30, and M33).

KOs and KER Analysis Meetings will be held at periodic intervals depending on the number of KOs (provisionally M12, M21, M27, and M35).

The aforementioned Knowledge Management activities and their outputs will be analysed in detail in the final WP deliverable D6.3 Report on impacts from DEC activities will be submitted at the end of M36.

3.5.4 Task 6.4 – MOOC Development

MOOCS will be released every six months (M6, M12, M18, M30), whereas their content and impact will be analysed in detail in D6.3 (end of M36).

3.5.5 Task 6.5 – Policy Briefs

Policy Briefs will mainly be produced over the last project year (M23-M35). As a first step, the most important policy-related KERs to be used in the Policy Briefs need to be identified, and this process will take place after the collection of KOs during months 23 (week 3 for Policy Brief 1) and 33 (week 2 for Policy Briefs 2-4). Once policy-related KERs have been selected, the core content of the Policy Briefs will be co-developed through online meetings with selected stakeholders and the Advisory Board during M23 (week 4 for Policy Brief 1) and M33 (week 3 for Policy Briefs 2-4). Thereafter, the Policy Briefs will be prepared during M24 (week 1 for Policy Brief 1) and M34 (week 4 for Policy Briefs 2-4), and once they are ready they will be forwarded for review to the Advisory Board during M24 (week 2 for Policy Brief 1) and M35 (week 2 for Policy Briefs 2-4). All five Policy Briefs will be submitted as a project deliverable (D6.2) in M35 week 4, and will also be included in D6.3 (M36).

3.5.6 Task 6.6 – Summer Schools

Three summer schools will be conducted over the three project years (M6, M18, M30). The content of each summer school and the venue will be decided at least six months before each summer school (during M1, M12, and M24). The content and impact of the three summer schools will be presented in D6.3 (M36).

3.5.7 Task 6.7 – Annual Virtual Conferences

Three Annual Virtual Conferences will take place during M11, M21, and M34. A provisional calendar for the 1st Annual Virtual Conference has already been decided (Table 3). The Annual Virtual Conferences' content and level of impact will be presented in D6.3 (M36).

Table 3. Save the Date: 5 months before conference

Activity	Proposed Deadline
Call for abstracts	June 2025 (M6 week 3)
Closing date for Abstracts	September 12, 2025 (M9 week 1)
Extension closing date for Abstracts	September 19, 2025 (M9 week 2)
Review of abstracts completed & all presenters informed of Oral/Poster abstract acceptance/ rejection/ changes required	October 7 (M10 week 1)
Confirm with Remaining Presenters re abstract changes accepted/rejected	October 14 (M10 week 2)
Virtual Conference 1 realization	November 2025 (M12 week 2)

3.5.8 Task 6.8 – Stakeholder Training

Four stakeholder training sessions are planned to take place in M27, M30 and M4. The topic of these courses and the means of delivery (whether physical or remote) will be decided 5 months prior to each course. Their content and level of impact will be presented in D6.3 (M36).

3.5.9 Task 6.9 – Joint Activities

The first draft of the excel spreadsheet including all potential links with international initiatives will be completed by M9, although additional links may be added when new collaborations occur. An analytical report with all joint activities and their outcomes will be included in D6.3 (M36).

3.5.10 Task 6.10 – Project Legacy

The survey will be forwarded to all partners during the first week of M32, the deadline for partner replies is the first week of M33. A targeted workshop with all partners to finalize the survey responses and decide on the structure of the Project Legacy Strategic Plan will take place during the final project meeting (M33 week 4). The Project Legacy Strategic Plan will be forwarded to the Advisory Board by the first week of M35 in order to receive their feedback by the last week of M35. The final Project Legacy report and Project Legacy Strategic Plan will be presented in D6.3 (M36).

Year	2025												2026												2027											
Project Month	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
Task & activity																																				
6.1 DEC plan																																				
D6.1 Ready for internal review																																				
D6.1 Submitted																																				
DEC dashboard completed																																				
Impact metrics report																																				
D6.3 Ready for internal review																																				
D6.3 Submitted																																				
6.2 Branding and DEC resources and activities																																				
Press Releases [1-4]	[1]								[2]													[3]														[4]
Webpage [phases 1-3]		[1]				[2]		[3]																												
Branding material completed																																				
Infographics [1-5]							[1]						[2]						[3]						[4]						[5]					
Newsletters [1-4]												[1]												[2]						[3]						[4]
Short videos [1-3]												[1]										[2]													[3]	
6.3 Knoledge Management																																				
KO collection												[1]						[2]						[3]						[4]						
KO & KER Analysis Meetings												[1]									[2]						[3]									
6.4 MOOCs																																				
MOOC completed [1-5]						[1]						[2]						[3]						[4]						[5]						
6.5 Policy Briefs																																				
Idendtification of policy-related KERs for Policy Briefs																							[1]										[2]			
Co-development with stakeholders and Advisory Board																							[2]										[3]			
Policy Brief [1-4]																								[1]									[2]	[3]	[4]	
6.6 Summer Schools																																				
Content & venue decided for SS 1-3	[1]											[2]												[3]												
SS realized [1-3]						[1]												[2]												[3]						
6.7 Annual Virtual Conferences (AVC)																																				
AVC realization											[1]										[1]													[2]		
6.8 Training stakeholders on developed tools and lessons learnt																																				
Training session																										[1]				[2]				[3,4]		
6.9 Joint activities with International Initiatives																																				
Spreadsheet completed																																				
6.10 Project Legacy																																				
Survey forwarded to all parties																																[1]				
Survey replies received																																	[2]			
Project Legacy Strategic Plan review by PAB																																			[3]	
Project legacy report and Strategic Plan completed																																				[4]

Figure 31. Gantt chart of the DEC plan. Colored cells reflect the project month they are associated with. Numbers in brackets represent successive activities of the same Task.

4 DEC Plan Monitoring and Evaluation

The DEC Plan functions as an operation manual that will systematically be updated throughout the project lifespan. The DEC Plan will be revisited at each EC reporting stage to align with the evolving project context, and the latest DEC activities and project results.

Effective monitoring and evaluation (M&E) are essential to ensure that the DEC activities of GuardIAS are impactful, targeted, and adaptive. This section outlines the approach to tracking progress, assessing performance, and adjusting strategies in response to emerging needs, opportunities, and stakeholder feedback.

4.1 Monitoring Framework

The DEC Plan will be monitored through a structured framework comprising quantitative indicators, qualitative assessments, and periodic reviews (Table 4) as well as key monitoring indicators. Coordination of the monitoring process is led by UAEGEAN in collaboration with all partners responsible for specific DEC tasks.

Table 4. Key monitoring tools

Tool	Purpose	Frequency	Responsible
DEC Plan Dashboard	Quantitative tracking of KPIs	Quarterly	All partners / UAEGEAN
Event Metrics Form	Participant data and event-level feedback	After each event	Event organisers
Scientific Output Tracking	Publication and communication log	Continuous	ERINN
Satisfaction Surveys	Feedback on DEC activities and formats by project parties and PAB	Annually	UAEGEAN
Impact Metrics Reports	Annual assessment of DEC performance	Annually	UAEGEAN
IP Assessment Protocol	Check for exploitable outputs	Pre-dissemination	ERINN

Key monitoring / performance indicators include:

- **Communication**
  - Website traffic (visits, page views, average time on site)
  - SM metrics (followers, engagement rates, impressions, number of views)
  - Media coverage (number of newsletters, press releases, media mentions)
- **Dissemination**
  - Number and type of scientific publications
  - Open access compliance and repository deposits (e.g. Zenodo)
  - Participation in conferences, workshops, and webinars
  - Number of policy briefs, factsheets, and stakeholder-targeted materials, infographics, short videos

- Policy related activities (number of stakeholders, policymakers and countries where Policy Briefs have been distributed, number of downloads of Policy Briefs from webpage, number of policymakers participating in meetings)
- External events, including CS activities for eDNA sampling, IAS detection and monitoring, IAS eradication and control, and also including BioArtBlitz events, marina events, applied games (number of events, number of participants, number of people active in EU IAS project in iNaturalist)

- **Exploitation**

- Uptake of tools, datasets, or protocols by external users (number of tools/datasets/protocols, number of external users, stakeholder feedback on usability and relevance of outputs)
- Stakeholder training sessions (Number of participants from different countries)
- Engagement with regulatory and policymaking bodies (number of regulatory and policymaking bodies and type of engagement)
- Next generation training, through MOOCs, Summer Schools, Virtual Conferences and professional experience gain through collaboration with the project (Number of trainees, target groups, and nationalities engaged in the different actions, number of conference delegates per conference)
- Number of GuardIAS outputs with a clear exploitation plan
- Number of joint activities with international initiative
- Number of proposals / projects leveraging GuardIAS outputs

4.2 Coordination and Evaluation Process

The University of the Aegean (UAEGEAN), as Work Package 6 leader, coordinates DEC Plan M&E. Each partner is responsible for submitting accurate quarterly updates. ERINN Innovation manages IP tracking and exploitation-related assessments, while task leaders ensure proper documentation of activities under their remit.

Evaluation will occur at three levels:

I. **Internal Review**: Semi-annual checks by the DEC lead, based on partner reports and analytics, to verify progress against objectives.
II. **Annual Consortium Evaluation**: Reflection during annual meetings to assess DEC effectiveness, identify bottlenecks, and propose course corrections.
III. **Advisory Oversight**: Feedback from the PAB on policy relevance, clarity of messages, and stakeholder engagement quality.

Qualitative feedback from target audiences—collected through surveys, stakeholder workshops, and bilateral interactions—will complement quantitative metrics.

4.3 Learning and Adaptive DEC Plan Management

Findings from evaluations and surveys are reviewed annually during consortium meetings. Corrective actions, content redesign, or channel optimization are implemented accordingly. This iterative process ensures that DEC strategies remain aligned with stakeholder needs, project evolution, and EC expectations.

The DEC Plan is designed to be dynamic and adaptable. Insights from the monitoring and evaluation process will be used to:

- Refine target audiences and key messages
- Adjust communication channels and formats
- Improve the clarity, accessibility, and impact of dissemination materials
- Enhance the exploitation potential of project outputs

4.4 Integration with Exploitation Roadmap and Project Legacy

M&E outcomes will directly inform the development of the Exploitation Roadmap by highlighting outputs with high external uptake or transfer potential and the final Project Legacy plan. By identifying which tools or outputs have the highest uptake or engagement, the consortium can prioritize their continuation post-project.

5 ANNEX

5.1 Task 6.3 - IP Assessment Form

Table A1. IP Assessment Form for screening dissemination and communication activities to ensure protection of results. Cells in purple to be filled by author, cells in blue to be filled by Task 6.3 lead ERINN Innovation (ERINN).

IP Assessment Prior to Dissemination	Description / Comments
Title of the Dissemination or Communication Activity	
Type of Dissemination or Communication activities, including details on names, dates, places, *etc*. *Scientific Publications: Article in Journal; Publication in Conference proceedings/Workshop; Book/Monograph; Chapter in a Book; Thesis/ Dissertation; Other* *Dissemination and Communication activities: Organisation of a Conference; Organisation of a Workshop; Press release; Non-scientific and non-peer-reviewed publication (popularised publication); Exhibition; Flyer; Training; SM; Website; Communication Campaign (e.g., Radio, TV); Participation to a Conference; Participation to a Workshop; Participation to an Event other than a Conference or a Workshop; Video/Film; Brokerage Event; Pitch Event; Trade Fair; Participation in activities organized jointly with other Horizon Europe project(s); Other*	
Where to find it (if it is/will be published)? *Give information on where to find the Dissemination or Communication Activity, if it will be in the public domain, e.g., website address, scientific journal details, etc.*	
Have all contributors to the Dissemination or Communication Activity been included in the author list where relevant, or are otherwise properly acknowledged? *Include the names of the authors here*	
Do all authors agree on this Dissemination or Communication activity? *Declaration of the main/corresponding author*	
• Q1: Have different institutions been involved in this Dissemination or Communication Activity? • Q2: If yes, have you taken care of ownership issues? How?	• Answer to Q1: • Answer to Q2:

Is appropriate acknowledgment to EU included? *Note: always include the statement indicated in the GuardIAS Brand Guidelines into any GuardIAS Dissemination or Communication Activity.* *If possible, also include the EU emblem*	
Which part of the GuardIAS project does the Dissemination or Communication Activity correspond with? *Include WP number and, if possible, tasks numbers*	
Does the Dissemination or Communication Activity include work originating also from non-GuardIAS work, *e.g.*, from other EU or nationally funded projects? *Include name/code (Grant Agreement number) of the project*	
• Q1: Is the result you are aiming to disseminate considered to be commercially/ industrially exploitable? • Q2: If yes, have you protected the result prior to dissemination, please give details?	• Answer to Q1: • Answer to Q2:
Do you, as a reviewer, consider the result that is aimed to be disseminated here, to be commercially/ industrially exploitable? Please give clarifications.	
Does the information contain any personal data? If yes, has permission been obtained for the public use of such data? If yes, please include this.	
Do all authors agree on the Dissemination or Communication Activity being disclosed through the GuardIAS channels (*e.g.*, project website) once accepted/ presented? *A declaration of the main/corresponding author indicates that all participants agree*	
Which stakeholders could be interested in knowing about the results and the conclusions of your Dissemination or Communication Activity? *Choose the relevant target group(s) among:* *A) Industry* *B) Policy/decision-makers* *C) Scientists* *D) Consumers/general public* *E) Other stakeholders (please specify)* *Please specify as detailed as possible*	
Date of submission to Task 6.3 lead ERINN	

Recommendations:

Task 6.3 lead ERINN recommendation (to publish or protect)	

Authorisations:

Main author publication	**Task 6.3 lead ERINN**
Date: Signature:	Date: Signature: