Project title	Safe, Efficient and Autonomous: Multimodal Library of European Shortsea and inland Solutions		
Project acronym	SEAMLESS		
Project number	101096923		
Project start date	01/01/2023	Duration	48 months

D1. 7 - KNOWLEDGE AND IPR MANAGEMENT PLAN

Due date	30/06/2023	Delivery date	03/07/2023
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Reviewer(s)	Odd Erik Mørkrid (SO)		
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VERSION AND AMENDMENTS HISTORY

Version	Date	Created/Amended by	Changes
0.1	01/06/2023	Alexandros Rammos (NTUA)	Added Table of Contents
0.2	10/06/2023	Alexandros Rammos (NTUA)	Added description on Chapters 1 & 2
0.3	15/06/2023	Vassileios Podimatas (NTUA)	Added description on Chapters 3 & 4 & 5
0.4	25/06/2023	Konstantinos Louzis (NTUA)	Added Chapter 6, Review document
1.0	30/06/2023	Odd Erik Mørkrid (SO)	Review Document

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EXECUTIVE SUMMARY

This deliverable is dedicated to SEAMLESS Knowledge and IPR (Intellectual Property Rights) management encompassing specific procedures for managing background and foreground knowledge, as well for managing IPR issues related to the technical results of the project. The management of background knowledge have been described in detail in the Consortium Agreement, which is the basic reference of this report, and includes the use of knowledge, pre-existing know-how, and foreground knowledge generated by any member of the Consortium that will be made available to the Consortium on a royalty free basis, as far as it is required to deliver the expected results of the project. In addition, Joint Ownership issues will be properly addressed while all relevant procedures will be described in detail in the current deliverable.

1 INTRODUCTION

1.1 PURPOSE OF THE DOCUMENT

This deliverable describes the framework of IPR and Knowledge management as planned in the SEAMLESS project. The content of this deliverable is based on the Grant Agreement (GA) and the Consortium Agreement (CA), which are the two basic documents of partners' contractual obligations under the scope of the SEAMLESS project. The deliverable includes all relevant clauses, which describe all issues, obligations, procedures and policies with respect to access rights, disclosure of information, transfer of knowledge, dissemination, publication, background knowledge driven from partners' contribution and foreground as generated from project results as well as joint ownership issues over anticipated project results.

1.2 INTENDED READERSHIP

The intended readership of this confidential document is only the members of the project's consortium and the European Commission services.

1.3 DOCUMENT STRUCTURE

This document is structured in four basic sections. Section 1 describes the IPR framework of the SEAMLESS project. Section 2 is dedicated to policies related to non-disclosure of information for the protection of foreground generated under the scope of project. Section 3 includes revisions against partner's background as recorded in Attachment 1 of the CA. Section 4 concludes with the foreground that is anticipated to be developed by partners in the context of the project, either in single or joint ownership, and a brief description of how SEAMLESS will monitor and record innovation and knowledge throughout the project's lifetime.

1.4 TERMINOLOGY

This sub-section provides definitions of the terminology.

Term	Description
Access Rights[1]	'Access rights' means rights to use results or background under the terms and conditions laid down in this Agreement
Affiliated Entity[2]	'Affiliated entity' means any legal entity that is: - under the direct or indirect control of a participant, or - under the same direct or indirect control as the participant, or - directly or indirectly controlling a participant. 'Control' may take any of the following forms: (a) the direct or indirect holding of more than 50% of the nominal value of the issued share capital in the legal entity concerned, or of a majority of the voting rights of the shareholders or associates of that entity; (b) the direct or indirect holding, in fact or in law, of

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[1] Term taken from SEAMLESS Grant Agreement (101096923 – SEAMLESS – HORIZON-CL5-2022-D5-01)

[2] Term taken from SEAMLESS Grant Agreement (101096923 – SEAMLESS – HORIZON-CL5-2022-D5-01)

Term	Description
	decision-making powers in the legal entity concerned. However the following relationships between legal entities shall not in themselves be deemed to constitute controlling relationships: (a) the same public investment corporation, institutional investor or venture-capital company has a direct or indirect holding of more than 50% of the nominal value of the issued share capital or a majority of voting rights of the shareholders or associates; (b) the legal entities concerned are owned or supervised by the same public body.
Background[3]	'Background' means any data, know-how or information — whatever its form or nature (tangible or intangible), including any rights such as intellectual property rights — that is held by the beneficiaries before they acceded to the Agreement, and is needed to implement the action or exploit the results.
Defaulting Party[4]	Defaulting Party means the Party that is subject to an Event of Default
Foreground[5]	Foreground means the results, including information, materials and knowledge, generated in a given project, whether or not they can be protected
Non Defaulting party[6]	Is the Party that is not the Defaulting Party.

2   INTELLECTUAL PROPERTIES RIGHTS IN SEAMLESS

2.1   GENERAL PRINCIPALS

Each partner shall implement its tasks in accordance with Annex I of the GA and shall bear sole responsibility for ensuring that its acts within the Project do not knowingly infringe third party property rights. As provided in the GA Chapter 4, Section 3 and defined also in Section 9 of the CA, the partners shall inform each other as soon as possible of any restriction on the granting of Access Rights to Background or of any other restriction that might substantially affect the granting of Access Rights.

Access Rights shall be free of any administrative transfer costs. Access Rights are granted on a non-exclusive basis, unless otherwise agreed in writing by all the partners according to the Grant Agreement.

Foreground and Background shall be used only for the purposes for which Access Rights to it have been granted. All Access Rights shall be made in writing. For the avoidance of doubt, such written

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[3] Term taken from SEAMLESS Grant Agreement (101096923 – SEAMLESS – HORIZON-CL5-2022-D5-01)

[4] https://www.lawinsider.com/

[5] http://www.iprhelpdesk.eu/

[6] https://www.lawinsider.com/

request may also be submitted by e-mail with acknowledgement of receipt. The requesting Party must indicate that Access Rights are needed.

The granting of Access Rights may be made conditional on the acceptance of specific conditions aimed at ensuring that these rights will be used only for the intended purpose and that appropriate confidentiality obligations are in place.

2.2 BACKGROUND COVERED

In Attachment 1 of the CA, all Parties have identified and agreed on the Background for the Project and have also, where relevant, informed each other that Access to specific Background is subject to legal restrictions or limits. Anything not identified in this Attachment 1 shall not be the object of Access Right obligations regarding Background.

Any Party may add to the Background described in Attachment 1 of the CA during the Project's lifetime by written notice to the other Parties. In Section 4 of the current document a first revision of partners' background where applicable is included. However, approval of the Project Board is needed, should a Party wish to modify or withdraw its Background in Attachment 1 of the CA.

2.3 ACCESS RIGHT FOR PROJECT IMPLEMENTATION

Access Rights to Results and Background Needed for the performance of the own work of a Party under the Project shall be granted on a royalty-free basis, unless otherwise agreed for Background in Attachment 1 of the CA.

2.4 ACCESS RIGHTS FOR EXPLOITATION

Access Rights to Results if Needed for Exploitation of a Party's own Results shall be granted on Fair and Reasonable conditions. Access rights to Results for internal research activities shall be granted on a royalty-free basis. Access Rights to Background if Needed for Exploitation of a Party's own Results, including for research on behalf of a third party, shall be granted on Fair and Reasonable conditions. A request for Access Rights may be made up to twelve months after the end of the Project or after the termination of the requesting Party's participation in the Project.

2.5 ACCESS RIGHTS FOR AFFILIATED ENTITIES

Affiliated Entities have Access Rights under the conditions of the GA Articles 16 and 17. If they are identified in Attachment 4 of the CA, such Access Rights must be requested by the Affiliated Entity from the Party that holds the Background or Results. Alternatively, the Party granting the Access Rights may individually agree with the Party requesting the Access Rights to have the Access Rights include the right to sublicense to the latter's Affiliated Entities listed in Attachment 4 of the CA. Access Rights to Affiliated Entities shall be granted on Fair and Reasonable conditions and upon written bilateral agreement. Affiliated Entities which obtain Access Rights in return fulfil all confidentiality and other obligations accepted by the Parties under the Grant Agreement or this Consortium Agreement as if such Affiliated Entities were Parties. Access Rights may be refused to Affiliated Entities if such granting is contrary to the legitimate interests of the Party which owns the Background or the Results. Access Rights granted to any Affiliated Entity are subject to the continuation of the Access Rights of the Party to which it is affiliated and shall automatically terminated upon termination

of the Access Rights granted to such Party. Upon cessation of the status as an Affiliated Entity, any Access Rights granted to such former Affiliated Entity shall lapse. Further arrangements with Affiliated Entities may be negotiated in separate agreements.

2.6 PUBLICATION OF ANOTHER PARTY'S FOREGROUND OR BACKGROUND

For the avoidance of doubt, a partner may not publish Foreground or Background of another Consortium member, without obtaining the owning Party's prior written approval, even if such Foreground or Background overlaps with the partner's own Foreground, without the other partner's prior written approval. Nevertheless, the partner shall authorize the other Consortium member to publish the Foreground, as long as such publications do not hinder their legitimate interests and the protection, or the Use of Foreground.

2.7 COOPERATION OBLIGATIONS

The Parties undertake to cooperate to allow the timely submission, examination, publication and defense of any dissertation or thesis for a degree that includes their Results or Background subject to the confidentiality and publication provisions agreed in SEAMLESS Consortium Agreement.

2.8 USE OF NAMES, LOGOS, OR TRADEMARKS

Nothing stated in the CA shall be construed as conferring rights to use in advertising, publicity or otherwise the name of the Parties or any of their logos or trademarks without their prior written approval.

2.9 ADDITIONAL ACCESS RIGHTS

For the avoidance of doubt, any grant of Access Rights not covered by the GA or CA shall be at the absolute discretion of the owning Party and subject to such terms and conditions as may be agreed between the owning and receiving Parties. The partners agree to negotiate in good faith any additional Access Rights to Foreground that might be asked by any partner.

2.10 ACCESS RIGHTS FOR PARTIES LEAVING THE CONSORTIUM

2.10.1 Defaulting Party

Access Rights granted to a Defaulting Party and such Party's right to request Access Rights shall cease immediately upon receipt by the Defaulting Party of the formal notice of the decision of the Project Board to terminate its participation in the consortium.

2.10.2 Non-defaulting Party

A non-defaulting Party leaving voluntarily and with the other Parties' consent shall have Access Rights to the Results developed until the date of the termination of its participation. A request for Access Rights may be made after the termination of the requesting Party's participation in the Project or up to twelve months after the end of the Project.

2.10.3 Access Rights to be granted by any leaving Party

Any Party leaving the Project shall continue to grant Access Rights pursuant to the GA and the CA as if it had remained a Party for the whole duration of the Project.

2.11 ACCESS RIGHTS FOR PARTIES ENTERING THE CONSORTIUM

As regards Results developed before the accession of the new Party, the new Party will be granted Access Rights on the conditions applying for Access Rights to Background.

2.12 SPECIFIC PROVISIONS FOR ACCESS RIGHTS TO SOFTWARE

For the avoidance of doubt, the general provisions for Access Rights provided for in this Exploitation Agreement are applicable also to software. Partners' Access Rights to software do not include any right to receive source code or object code ported to a certain hardware platform or any right to receive respective software documentation in any particular form or detail, but only as available from the partner granting the Access Rights.

3   NON-DISCLOSURE OF INFORMATION FOR THE PROTECTION OF FOREGROUND

3.1   GENERAL PROVISIONS

As stated in the CA, all information in whatever form or mode of communication, which is disclosed by a Party (the "Disclosing Party") to any other Party (the "Recipient") in connection with the project during its implementation and which has been explicitly marked as "confidential" at the time of disclosure, or when disclosed orally has been identified as confidential at the time of disclosure and has been confirmed and designated in writing within 15 calendar days from oral disclosure at the latest as confidential information by the Disclosing Party, is "Confidential Information".

3.2   RECIPIENT DECLARATION

Following relevant clauses in the CA, the Recipients hereby undertake in addition and without prejudice to any commitment on non-disclosure under the GA, for a period of 4 years after the end of the Project:

- not to use Confidential Information otherwise than for the purpose for which it was disclosed;
- not to disclose Confidential Information without the prior written consent by the Disclosing Party;
- to ensure that internal distribution of Confidential Information by a Recipient shall take place on a strict need-to-know basis; and
- to return to the Disclosing Party, or destroy, on request all Confidential Information that has been disclosed to the Recipients including all copies thereof and to delete all information stored in a machine-readable form to the extent practically possible. The Recipients may keep a copy to the extent it is required to keep, archive or store such Confidential Information because of compliance with applicable laws and regulations or for the proof of on-going

obligations provided that the Recipient comply with the confidentiality obligations herein contained with respect to such copy for as long as the copy is retained.

3.3 RESPONSIBILITIES

With reference to the CA, the recipients shall be responsible for the fulfilment of the above obligations on the part of their employees, or third parties involved in the Project and shall ensure that they remain so obliged, as far as legally possible, during and after the end of the Project and/or after the termination of the contractual relationship with the employee or third party.

3.4 CONDITIONS

The conditions established in this section shall not apply for disclosure or use of Confidential Information, if and in so far as the Recipient can show that:

- the Confidential Information has become or becomes publicly available by means other than a breach of the Recipient's confidentiality obligations;
- the Disclosing Party subsequently informs the Recipient that the Confidential Information is no longer confidential;
- the Confidential Information is communicated to the Recipient without any obligation of confidentiality by a third party who is to the best knowledge of the Recipient in lawful possession thereof and under no obligation of confidentiality to the Disclosing Party;
- the disclosure or communication of the Confidential Information is foreseen by provisions of the Grant Agreement;
- the Confidential Information, at any time, was developed by the Recipient completely independently of any such disclosure by the Disclosing Party;
- the Confidential Information was already known to the Recipient prior to disclosure, or the Recipient is required to disclose the Confidential Information in order to comply with applicable laws or regulations or with a court or administrative order, subject to the provision of Section 3.7 hereunder.

3.5 DEGREE OF CARE

The Recipient shall apply the same degree of care with regard to the Confidential Information disclosed within the scope of the Project as with its own confidential and/or proprietary information, but in no case less than reasonable care.

3.6 MISUSE

Each Party shall promptly advise the other Party in writing of any unauthorized disclosure, misappropriation, or misuse of Confidential Information after it becomes aware of such unauthorized disclosure, misappropriation or misuse.

3.7 NOTIFICATIONS

If any Party becomes aware that it will be required, or is likely to be required, to disclose Confidential Information in order to comply with applicable laws or regulations or with a court or administrative order, it shall, to the extent it is lawfully able to do so, prior to any such disclosure:

- notify the Disclosing Party, and
- comply with the Disclosing Party's reasonable instructions to protect the confidentiality of the information.

3.8 DISSEMINATION OF OWN RESULTS

For the avoidance of doubt, nothing in this Section has impact on the confidentiality obligations set out in Section 3 of this document and in Section 10 of the CA.

During the Project and for a period of 1 year after the end of the Project, the dissemination of own Results by one or several Parties including but not restricted to publications and presentations, shall be governed by the procedure of Article 16.3 of the GA subject to the following provisions.

Prior notice of any planned publication shall be given to the other Parties at least 45 calendar days before the publication. Any objection to the planned publication shall be made in accordance with the GA in writing to the Coordinator and to the Party or Parties proposing the dissemination within 30 calendar days after receipt of the notice. If no objection is made within the time limit stated above, the publication is permitted. An objection is justified if:

a) the protection of the objecting Party's Results or Background would be adversely affected;
b) the objecting Party's legitimate interests in relation to the Results or Background would be significantly harmed.

The objection must include a precise request for necessary modifications.

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.

3.9 JOINT OWNERSHIP

Results are owned by the Party that generates them. In case of Joint Ownership, the governance of the results is as per GA Article 16 with the following additions.

Unless otherwise agreed:

- Each of the joint owners shall be entitled to use their jointly owned Results for non-commercial research activities on a royalty-free basis, and without requiring the prior consent of the other joint owner(s), and

- Each of the joint owners shall be entitled to otherwise Exploit the jointly owned Results and to grant non-exclusive licenses to third parties (without any right to sub-license), if the other joint owners are given:

    a) at least 45 calendar days advance notice; and
    b) Fair and Reasonable compensation. The rules for determining fair and reasonable compensation will be agreed upon by the parties involved in the joint ownership.

3.10 TRANSFER OF FOREGROUND

Each Party may transfer ownership of its own Results following the procedures of the GA Article 16. It may identify specific third parties it intends to transfer the ownership of its Results to in Attachment 3 of the CA. The other Parties hereby waive their right to prior notice and their right to object to a transfer to listed third parties according to the GA Article 16. The transferring Party shall, however, at the time of the transfer, inform the other Parties of such transfer and shall ensure that the rights of the other Parties will not be affected by such transfer. Any addition to Attachment 3 after signature of the CA requires a decision of the Project Board. The Parties recognize that in the framework of a merger or an acquisition of an important part of its assets, it may be impossible under applicable EU and national laws on mergers and acquisitions for a Party to give the full 45 calendar days prior notice for the transfer as foreseen in the GA. The obligations above apply only for as long as other Parties still have - or still may request - Access Rights to the Results.

4   LIST OF BACKGROUND INCLUDED IN THE SEAMLESS PROJECT

A list of partners' background as stated in Attachment 1 of the SEAMLESS CA is provided below, together with any recorded revision at this initial stage of the project timeline. Where input is not applicable (N/A) we assume that no data, know-how or information of the partner in reference shall be Needed by another Party for implementation of the Project (GA Article 16.4) or Exploitation of that other Party's Results (GA Article 16.4).

Partner Number	Partner Short Name	Background Details
1	NTUA	1. Parties have access to all Background developed by the Laboratory for Maritime Transport (LMT) of the National Technical University of Athens that is in the public domain. Specific limitations and/or conditions for implementation (GA Article 16.4): NTUA excludes all Background developed by NTUA personnel not working on the SEAMLESS project and by NTUA personnel working on the SEAMLESS project that is not relevant for the project. Specific limitations and/or conditions for Exploitation (GA Article 16.4): Any use of Background for exploitation should be previously and specifically authorized in writing by NTUA and it could be subject to fair and reasonable conditions agreed by Parties. 2. MODALNET logic to be used as part of MODALNET platform. Specific limitations and/or conditions for implementation (GA Article 16.4): The described background software, technologies and toolboxes may be used by the consortium strictly for the SEAMLESS project purposes. No further commercial or other use is allowed without previous written consent by NTUA. Specific limitations and/or conditions for Exploitation (GA Article 16.4): No further exploitation is allowed without previous written consent by NTUA.
2	TUD	N/A
3	BERGEN	N/A
4	TIC4.0	N/A
5	ZULU	N/A
6	SO	N/A
7	PNO	1. Developed know-how and methodologies to perform Cost Benefit Analysis, Stakeholder and Technology Intelligence Analysis as well as Innovation Management workshops. Specific limitations and/or conditions for implementation (GA Article 16.4):

Partner Number	Partner Short Name	Background Details
		This information can only be used/shared as far as needed to carry out the project and might be subject to a prior written separate confidentiality or/and other agreements. This is the case since stricter confidentiality measures might apply as outlined in this Consortium Agreement. Specific limitations and/or conditions for Exploitation (GA Article 16.4): This information can only be used/shared as far as needed to carry out the project and might be subject to a prior written separate confidentiality or/and other agreements. This is the case since stricter confidentiality measures might apply as outlined in this Consortium Agreement. 2. Aggregated data concerning market, patents, R&D as developed by former analyses by PNO. Reports providing outlook on specific industrial and/or technology sectors, based on publicly available data and / or non-confidential interviews with experts of the sectors under study, in combination with analysis of that data carried out exclusively by PNO not containing any Results owned by the other SEAMLESS Partners. Specific limitations and/or conditions for implementation (GA Article 16.4): This information can only be used/shared as far as needed to carry out the project and might be subject to a prior written separate confidentiality or/and other agreements. This is the case since stricter confidentiality measures might apply as outlined in the CA. Specific limitations and/or conditions for Exploitation (GA Article 16.4): This information can only be used/shared as far as needed to carry out the project and might be subject to a prior written separate confidentiality or/and other agreements. This is the case since stricter confidentiality measures might apply as outlined in this Consortium Agreement.
8	NTNU	N/A
9	MCGFI	N/A
10	MCGNO	N/A
11	ISL	1. Parties have access to all Market Analyses, Models and Data developed by ISL that is in the public domain. Specific limitations and/or conditions for implementation (GA Article 16.4): ISL excludes all Background developed by ISL personnel not working on the SEAMLESS project and by ISL personnel working on the SEAMLESS project that is not relevant for the project.

Partner Number	Partner Short Name	Background Details
		Specific limitations and/or conditions for Exploitation (GA Article 16.4): No further exploitation is allowed without previous written consent by ISL. 2. RIS Tools and Concepts developed within IW-NET, EMMA and RISING by ISL. Specific limitations and/or conditions for implementation (GA Article 16.4): The described background software, technologies and toolboxes may be used by the consortium strictly for the SEAMLESS project purposes. Specific limitations and/or conditions for Exploitation (GA Article 16.4): No further exploitation is allowed without previous written consent by ISL.

12	IRTSX	1. Knowledge in modelling, simulation and optimisation for logistics and mobility with tool-based methodologies including demand generation and synthetic population consolidation.
		
		2. Optimal vehicle routing tools and algorithms:
		  - Knowledge
		  - VROOM
		  - JSPrit
		
		Specific limitations and/or conditions for implementation (GA Article 16.4):
		VROOM co-ownership, under open source license BSD,
		JSprit co-ownership under open source license Apache 2.0.
		
		Specific limitations and/or conditions for Exploitation (GA Article 16.4):
		VROOM: co-ownership, under open source license BSD
		JSprit: co-ownership, under open source license Apache 2.0
		
		3. Computer Aided Risk Analysis tool: A model-based tool that identifies all possible attack paths in a software or a hardware architecture.
		
		Specific limitations and/or conditions for implementation (GA Article 16.4): Co-ownership
		
		Specific limitations and/or conditions for Exploitation (GA Article 16.4): Co-ownership

Partner Number	Partner Short Name	Background Details
		4. Threat Scenario knowledge base: a catalogue of attacks scenarios. Specific limitations and/or conditions for implementation (GA Article 16.4): Free access for basic scenarios and commercial license for full catalogue. Specific limitations and/or conditions for Exploitation (GA Article 16.4): Commercial license. 5. Fine-Grained Access Control Toolkit: an attributed-Based Encryption Framework to enforce fine-grained access control to share date among a community of users with differentiated access at data level and not file level. Specific limitations and/or conditions for implementation (GA Article 16.4): Free access. Specific limitations and/or conditions for Exploitation (GA Article 16.4): Commercial license. 6. Cyber Attacks Catalog: implementation of attacks scenarios to evaluate the security of an infrastructure. Specific limitations and/or conditions for implementation (GA Article 16.4): Free access for basic features attack actions. Specific limitations and/or conditions for Exploitation (GA Article 16.4): Commercial license. 7. Yocto Toolchain OS Hardening Environment : a toolkit to automate the generation and deployment of secure Operating Systems for embedded devices. Specific limitations and/or conditions for implementation (GA Article 16.4): Free access for basic features and commercial license for full-functions. Specific limitations and/or conditions for Exploitation (GA Article 16.4): Commercial license.
13	VPF	N/A
14	PODU	N/A
15	DST	N/A
16	VNF	The parties have access to all Background developed by Voies Navigables de France that is in the public domain.

Partner Number	Partner Short Name	Background Details
		Specific limitations and/or conditions for implementation (GA Article 16.4): Voies Navigables de France excludes all Background developed by Voies Navigables de France staff not working on the SEAMLESS project and by Voies Navigables de France staff working on the SEAMLESS project that is not relevant to the project. Specific limitations and/or conditions for Exploitation (GA Article 16.4): Any use of Background for exploitation should be previously and specifically authorized in writing by Voies Navigables de France and it could be subject to fair and reasonable conditions agreed by Parties.
17	ESI	N/A
18	ASKO	ASKO vessels: Logged operational data from port operation including charging, docking / undocking and transfer. Specific limitations and/or conditions for implementation (GA Article 16.4): The described background data may be used by the consortium strictly for the SEAMLESS project purposes. No further commercial or other use is allowed without previous written consent by ASKO. Specific limitations and/or conditions for Exploitation (GA Article 16.4): No further exploitation is allowed without previous written consent by ASKO.
19	ALICE	N/A
20	INLS	N/A
21	POAB	Parties have access to all Background developed by Port of Antwerp-Bruges (POAB) that is in the public domain. Specific limitations and/or conditions for implementation (GA Article 16.4): POAB excludes all Background developed by POAB personnel not working on the SEAMLESS project and by POAB personnel working on the SEAMLESS project that is not relevant for the project. Specific limitations and/or conditions for Exploitation (GA Article 16.4): Any use of Background for exploitation should be previously and specifically authorized in writing by POAB and it could be subject to fair and reasonable conditions agreed by Parties.
22	FTTE	N/A
23	KMNO	N/A
24	BV	BV Rules, notes, databases, codes and routines and all data related to BV classed ships and related equipment such as drawings, certificates, procedures, instructions and audit and training material.

Partner Number	Partner Short Name	Background Details
		Specific limitations and/or conditions for implementation (GA Article 16.4): Unless agreed otherwise, the request is always required directly to the beneficiary that hold the background to get agreement on access to the beneficiary knowledge and results. Specific limitations and/or conditions for Exploitation (GA Article 16.4): Unless agreed otherwise, the request is always required directly to the beneficiary that hold the background to get agreement on access to the beneficiary knowledge and results
25	AWAKE.AI	1. SYSTEM AND METHOD FOR MONITORING ROUTE OF VESSEL (PCT/FI2022/050259). Specific limitations and/or conditions for implementation (GA Article 16.4): This Background, developed and solely owned by AWAKE.AI, will be used by AWAKE.AI for implementation of the Action. Access Rights for other Parties for implementation of the Action (GA Article 16.4) are excluded notwithstanding can subject to contract, consent and compensation be agreed upon. Specific limitations and/or conditions for Exploitation (GA Article 16.4): Access Rights for Exploitation of Results (GA Article 16.4) are excluded, notwithstanding can subject to contract, consent and compensation be agreed upon. 2. SYSTEM AND METHOD FOR MONITORING ROUTE OF VESSEL (FI20215479). Specific limitations and/or conditions for implementation (GA Article 16.4): This Background, developed and solely owned by AWAKE.AI, will be used by AWAKE.AI for implementation of the Action. Access Rights for other Parties for implementation of the Action (GA Article 16.4) are excluded notwithstanding can subject to contract, consent and compensation be agreed upon. Specific limitations and/or conditions for Exploitation (GA Article 16.4): Access Rights for Exploitation of Results (GA Article 16.4) are excluded, notwithstanding can subject to contract, consent and compensation be agreed upon. 3. SYSTEM FOR GUIDING VESSEL TO PORT AND METHOD THEREFOR (EP21703497.4).

Partner Number	Partner Short Name	Background Details
		Specific limitations and/or conditions for implementation (GA Article 16.4): This Background, developed and solely owned by AWAKE.AI, will be used by AWAKE.AI for implementation of the Action. Access Rights for other Parties for implementation of the Action (GA Article 16.4) are excluded notwithstanding can subject to contract, consent and compensation be agreed upon. Specific limitations and/or conditions for Exploitation (GA Article 16.4): Access Rights for Exploitation of Results (GA Article 16.4) are excluded, notwithstanding can subject to contract, consent and compensation be agreed upon. 4. SYSTEM FOR GUIDING VESSEL TO PORT AND METHOD THEREFOR (FI20205082). Specific limitations and/or conditions for implementation (GA Article 16.4): This Background, developed and solely owned by AWAKE.AI, will be used by AWAKE.AI for implementation of the Action. Access Rights for other Parties for implementation of the Action (GA Article 16.4) are excluded notwithstanding can subject to contract, consent and compensation be agreed upon. Specific limitations and/or conditions for Exploitation (GA Article 16.4): Access Rights for Exploitation of Results (GA Article 16.4) are excluded, notwithstanding can subject to contract, consent and compensation be agreed upon. 5. METHOD FOR PROVIDING A LOCATION-SPECIFIC MACHINE LEARNING MODEL (US17772013). Specific limitations and/or conditions for implementation (GA Article 16.4): This Background, developed and solely owned by AWAKE.AI, will be used by AWAKE.AI for implementation of the Action. Access Rights for other Parties for implementation of the Action (GA Article 16.4) are excluded notwithstanding can subject to contract, consent and compensation be agreed upon. Specific limitations and/or conditions for Exploitation (GA Article 16.4): Access Rights for Exploitation of Results (GA Article 16.4) are excluded, notwithstanding can subject to contract, consent and compensation be agreed upon. 6. METHOD FOR PROVIDING A LOCATION-SPECIFIC MACHINE LEARNING MODEL (EP20807458.3).

Partner Number	Partner Short Name	Background Details
		Specific limitations and/or conditions for implementation (GA Article 16.4): This Background, developed and solely owned by AWAKE.AI, will be used by AWAKE.AI for implementation of the Action. Access Rights for other Parties for implementation of the Action (GA Article 16.4) are excluded notwithstanding can subject to contract, consent and compensation be agreed upon. Specific limitations and/or conditions for Exploitation (GA Article 16.4): Access Rights for Exploitation of Results (GA Article 16.4) are excluded, notwithstanding can subject to contract, consent and compensation be agreed upon. 7. METHOD FOR PROVIDING A LOCATION-SPECIFIC MACHINE LEARNING MODEL (FI20195961). Specific limitations and/or conditions for implementation (GA Article 16.4): This Background, developed and solely owned by AWAKE.AI, will be used by AWAKE.AI for implementation of the Action. Access Rights for other Parties for implementation of the Action (GA Article 16.4) are excluded notwithstanding can subject to contract, consent and compensation be agreed upon. Specific limitations and/or conditions for Exploitation (GA Article 16.4): Access Rights for Exploitation of Results (GA Article 16.4) are excluded, notwithstanding can subject to contract, consent and compensation be agreed upon.
26	PCT	N/A

5   LIST OF GENERATED FOREGROUND IN THE SEAMLESS PROJECT

The anticipated foreground as project results are generated and as initially stated by each partner in this early stage of the project is provided below. The foreground generated is described either in a single or joint ownership / development schema along with proposed methods of protection.

Partner Number	Partner Short Name	Foreground generated within the project	Single Ownership/ Joint Ownership	Proposed method of protection (patent, industrial design, trademark, copyright, etc.)
1	NTUA	N/A	N/A	N/A
2	TUD	N/A	N/A	N/A
3	BERGEN	Concepts for automated port interfaces and intermodal cargo forwarding to/from the hinterland	Joint ownership	TBD
4	TIC4.0	N/A	N/A	N/A
5	ZULU	Concepts for autonomous waterborne transport services	Joint ownership	TBD
6	SO	N/A	N/A	N/A
7	PNO	N/A	N/A	N/A
8	NTNU	N/A	N/A	N/A
9	MCGFI	New crane design	Single Ownership	TBD
10	MCGNO	1. Automooring component for IWW applications 2. Vessel Positioning System	Single Ownership	TBD
11	ISL	Market Analysis of potential IWT/SSS services in EU	Joint ownership	TBD
12	IRTSX	N/A	N/A	N/A
13	VPF	Concepts for automated port interfaces and intermodal cargo forwarding to/from the hinterland	Joint ownership	TBD
14	PODU	Concepts for automated port interfaces and intermodal cargo forwarding to/from the hinterland	Joint ownership	TBD
15	DST	Logistics cost and time analysis model	Joint ownership	TBD
16	VNF	N/A	N/A	N/A

Partner Number	Partner Short Name	Foreground generated within the project	Single Ownership/ Joint Ownership	Proposed method of protection (patent, industrial design, trademark, copyright, etc.)
17	ESI	Concepts for autonomous waterborne transport services	Joint ownership	TBD
18	ASKO	Concepts for autonomous waterborne transport services	Joint ownership	TBD
19	ALICE	N/A	N/A	N/A
20	INLS	N/A	N/A	N/A
21	POAB	Concepts for automated port interfaces and intermodal cargo forwarding to/from the hinterland	Joint ownership	TBD
22	FTTE	N/A	N/A	N/A
23	KMNO	1. Vessel Low attention level of autonomy; integrated automation system (IAS) 2. Vessel Low attention level of autonomy; sensor improvements and new technologies to be evaluated	Single Ownership	TBD
24	BV	N/A	N/A	N/A
25	AWAKE.AI	N/A	N/A	N/A
26	PCT	N/A	N/A	N/A

In the SEAMLESS project, the management of generated knowledge will be a continuous task. Anticipated foreground as generated by partners either in single or joint development will be recorded, documented and filed during the whole project timeline. Updates and revisions of foreground generation as driven from the development, application and validation of SEAMLESS innovation will be tracked as the project progresses, recorded by the coordinator (NTUA) and the innovation manager (PNO) to a designated format (same as the table above) and filed under a special folder in the project repository hosted in Microsoft teams (MS Teams). All revisions of SEAMLESS innovation tracking and knowledge/foreground generated will be timestamped, stored and be available in chronological order in the same folder. At project end, archive records and final knowledge base of foreground generated will be documented and be accessible for a time period of five years after project date of completion.

6 SUMMARY

This document has described the SEAMLESS Knowledge and IPR (Intellectual Property Rights) management, which encompasses specific procedures for managing background and foreground knowledge, as well for managing IPR issues related to the technical results of the project. Partner's background was listed together with any revision against what was initially stated in the CA. In addition, a list with anticipated foreground, as initially recorded from several partners at this early stage of the project, was provided. Finally, a plan for tracking down, documenting and filing any knowledge, result and innovation generated, either in single or joint ownership from SEAMLESS partners, was described.

7   REFERENCES

1. EUROPEAN COMMISSION, "Grant Agreement Number – 101096923 – SEAMLESS", 2023
2. SEAMLESS Consortium Agreement v1.0, 22/12/2022.