Reinforcing the AI4EU Platform by Advancing Earth
Observation Intelligence, Innovation and Adoption

D6.2: Summary of AI4Copernicus use-cases with predefined themes

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Executive Summary

In this deliverable we present the activities carried out in the context of the *1ˢᵗ Round of Open Calls* procedures and progress for use-cases in the predefined high-value domains of *Energy, Security, Agriculture, Health*, as-well-as an overview of the trustmark process and the award criteria.

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List of Terms & Abbreviations

Abbreviation	Definition
AB	Advisory Board
AI	Artificial Intelligence
AIoD	AI-on-Demand platform
DIAS	Data and Information Access Services
EO	Earth Observation
SME	Small & Medium Enterprise
SO	Support Officer
WP	Work Package

1 Introduction

1.1 Purpose and Scope

In this deliverable we provide a report on the *1st Round of Open Calls* procedures and progress for use-cases in the predefined high-value domains of Energy, Security, Agriculture, Health. In addition we provide an overview of the trustmark process and the award criteria.

1.2 Approach for Work Package and Relation to other Work Packages and Deliverables

WP6 focuses on technology transfer via the AI4Copernicus Open Calls. In order for this to be achieved, the objectives of this task pertain to the (a) design, (b) implementation and (c) evaluation of the AI4Copernicus Open Calls for Projects (use-cases and small-scale experiments) and Open Calls for citizen-driven theme/social cause selection.

The AI4Copernicus Open Calls programme aims to bring together diverse communities, namely the Artificial Intelligence (AI), and AI-on-demand platform, tools and services, with the Earth Observation Communities and Earth Observation (EO) data as well as DIAS (Data and Information Access Services) tools and services, and offer the AI4Copernicus tools and services that aim to address the variegating market-driven challenges in diverse industrial domains and citizen-driven social challenges (via the AI4Copernicus Open Calls).

The AI4Copernicus Open Calls are organised in five distinct rounds, targeting SMEs and Individuals. In particular, these Open Call Rounds are:

- 1st Round of Open Calls for Use-Cases: consortia projects with a low-technology SME by default) in 4 Industrial Domains: Energy, Security, Health, Agriculture
- 2nd Round of Open Calls for Citizen Social Challenges
- 3rd Round of Open Calls for Experiments: single company projects
- 4th Round of Open Calls for Use-Cases: consortia projects with a low-technology SME by default based on the identified Citizen Social Challenges (of the 2nd Round)
- 5th Round of Open Calls for Micro-Projects for testing the AI4Copernicus services: single company projects

The work plan of WP6 reflects the organisation of the Open Calls and includes the following tasks:

- Task 6.1: Open Calls Operational Planning and Management, running throughout the project's duration (M1-M36) and led by NCSR-D with CF contributing.
- Task 6.2: Open Calls for use-cases in the high-value domains: Energy, Security, Agriculture, Health, running from M7-M36 and led by NCSR-D, with UNITN, ECMWF, SatCen, UoA, INSEAD, and EQUINOR contributing.
- Task 6.3: Open Calls for small-scale experiments across all sectorial domains, running from M4 to M36 and led by NCSR-D, with ECMWF, UoA, INSEAD, UNITN, SatCen, and Equinor contributing.
- Task 6.4: Open Calls for citizen-driven themes and use-cases, also active from M4 to M36 and led by NCSR-D, with the contributions of SatCen, UoA, INSEAD, UNITN, EQUINOR and ECMWF.

The present D6.2 deliverable provides a report on the Open Calls procedures and progress for use-cases in the predefined high-value domains of Energy, Security, Agriculture, Health. In particular, it provides a report on the progress of the 1st Round of Open Calls according to the methodology provided by Deliverable D6.1. In addition, it will also provide an overview of the trustmark process and the award criteria.

Since the activities of WP6 are the central focus of the AI4Copernicus projects, the tasks of WP6 are related to most WPs of the project, and in particular:

- WP2: "User requirements and acceptance" in which WP6 provides ongoing input from the Open Calls and feedback from the Project Winners in relation to AI4Copernicus services (in addition to other feedback);
- WP3: "Technical positioning and architecture", WP4: "Implementation, customisation, integration and testing" and WP5: "Bootstrapping AI4Copernicus with high-impact services" which provide a series of technical, bootstrapping, and cloud services to the Open Call Projects for helping the implementation of their solutions;
- WP7: "Exploitation, Communication and Dissemination", which are involved in the active promotion, communication and dissemination of the Open Calls and the organisation of relevant events across the lifecycle of the projects. In addition, WP7 provides assistance for the exploitation and sustainability of the Open Calls results and the knowledge transfer from the open calls.

1.3 Organization of the Deliverable

In Section 2, we provide an overview of the activities and the process of the 1st Round of Open Calls, namely the activities for the open call phase, the selection phase, the support phase of the projects, and we discuss the planned activities that are going to happen in the sustainability phase. In Section 3, we discuss the results of the 1st open call by providing a presentation of the winning projects of the Open Calls, usage of the AI4Copernicus services and resources by the projects, and the assets provided in the AIoD catalogue in the context of the 1st Open Call. In Section 4, we present the AI4Copernicus Trustmark process, and In Section 5 we conclude.

2 Overview of the Process of the AI4Copernicus 1st Open Call

2.1 Introduction

The operation and management of the *Open Calls for use cases* focusing on the four high-value sectorial domains (*energy*, *agriculture*, *security*, *health*) utilised the methodology reported in Deliverable D6.1. The 1st Open Call for use-cases involved so far the following distinct phases:

- Phase 1: Open Call Phase (June 2021 - September 2021)
- Phase 2: Selection Phase (October 2021 - December 2021)
- GRANT AGREEMENT (January 2022 - April 2022)
- Phase 3: Support Phase (April 2022 - May 2023)
- Phase 4: Sustain Phase (June 2023 - July 2023)

For carrying out the Open Call, NCSR-D utilised the following three platforms:

- *The AI4Copernicus website* http://ai4copernicus-project.eu which is used for making available to the applicants all the required material (announcements, news, information, and several template documents) that were required for writing their proposals. The official project website is the most important online tool of communication as it allows the partnership to structure information as required so as to connect with the ecosystem that it will be reaching out to.
- *The AI4Copernicus Open Call Platform* http://calls.ai4copernicus-project.eu which has been developed by NCSR-D (and presented in D6.1) and is used by the applicants to submit their proposals and by the AI4Copernicus consortium for the management of the Open Calls. The platform provides the applicants with a set of tools to submit all the basic information about their proposal, include and manage their associate partners in their submission, tools to review and manage their proposal's budget with respect to the calls rules and manage their application's supplemental files.
- *The NCSR-D NextCloud file server* http://nextcloud.iit.demokritos.gr which is used for file storage, document sharing and as a repository between the AI4Copernicus consortium, the Open Call Projects and the External Advisory Board. It facilitates the implementation of the projects and communication with the Support Officers on a secure sharing platform including summarised and project-specific monitoring materials and an overview of monthly updates per project.

2.2 Phase 0: Awareness Creation

In the frame of the collaboration between WP6 and WP7, a series of short 30-minute, informational webinars have been introduced namely the *AI4Copernicus cafés* (May 2021 to September 2021). In these events project partners will provide additional information, tips, and ideas concerning the Open Calls submission process in their expert domains of Energy, Security, Health and Agriculture (additional details can be found in D6.1 and D7.2).

- AI4Copernicus café focusing on Energy. Talk title: How can Copernicus data support a high value, low carbon, safe society? Speaker: Richard Hall (Equinor). Date: 31/5/2021.

- [AI4Copernicus café focusing on Security](#). Talk title: The use of EO data for security and interconnected domains. Speaker: Michele Lazzarini (SatCen). Date: 21/6/2021.
- [AI4Copernicus café focusing on Agriculture](#). Talk title: Copernicus data in Agriculture and Food Security domains. Speaker: Lorenzo Bruzzone (UNITN). Date: 31/8/2021
- [AI4Copernicus café focusing on Health](#). Talk title: Monitoring and forecasting air quality in support of health applications. Speaker: Vincent-Henri Peuch (ECMWF). Date: 7/9/2021.

The talks can be accessed through the [AI4Copernicus website](#).

2.3 Phase 1: Open Call Phase

This phase involves the announcement of the 1st Round of the AI4Copernicus Open Calls for projects. In this phase, the design of the open calls' structure, application material and dissemination material (in collaboration with WP7) needed was created. In particular, during the 1st Open Call all the [relevant templates, annexes and guidelines for applicants](#) were prepared with a user-centric approach. Dedicated web pages on the AI4Copernicus website were prepared, including a specific Communications Toolkit, in collaboration with WP7. During this phase, all relevant AI4Copernicus Open Call Annexes were provided for interested participants to prepare their proposals. The Open Call was announced to the community on 30/6/2021 and the deadline was set to 30/9/2021.

More activities in this phase included the *launch of the Open Calls Platform* so that all interested applicants could submit their proposals, and the provisioning of *support to the applicants:* the Open Calls Team provided support to applicants by answering questions by e-mail and maintaining an [online page](#) with Frequently Asked Questions. Finally, several dissemination and communication activities were carried out by the Communications team and were reported in Deliverable D7.2.

An overview of the 1st Open Call applications is as follows:

- 34 submissions
- 81 European SMEs
- 18 EU countries
- 13 proposals focusing in the Agriculture domain (as a primary domain area)
- 10 proposals focusing in the Security domain (as a primary domain area)
- 7 proposals focusing in the Energy domain (as a primary domain area)
- 4 proposals focusing in the Health domain (as a primary domain area)

2.4 Phase 2: Selection Phase

This phase involved the implementation of the selection evaluation process with the beneficiaries (consortia with 2 or more partners with at least one non-tech user). The evaluation process for the 1st Round of Open Calls**,** as described in detail under Deliverable D6.1, involved four distinct types of screening and covered a period of 2 months. In particular:

- *Screening #1:* Eligibility Screening,
- *Screening #2*: Proposal Evaluation & Ethics Screening (2 individual evaluators)
- *Screening #3*: Evaluation & Consensus Panels (2 evaluators and the Panel Chair)
- *Screening #4*: Expert Advisory Board Panels (Panel Chairs and Advisory Board Members)

The evaluation process covered a period of 3 months: October 2021 - December 2021.

An overview of the evaluation process of the 1st Open Call and the The high-level overview of the evaluation activities are provided in the figure below:
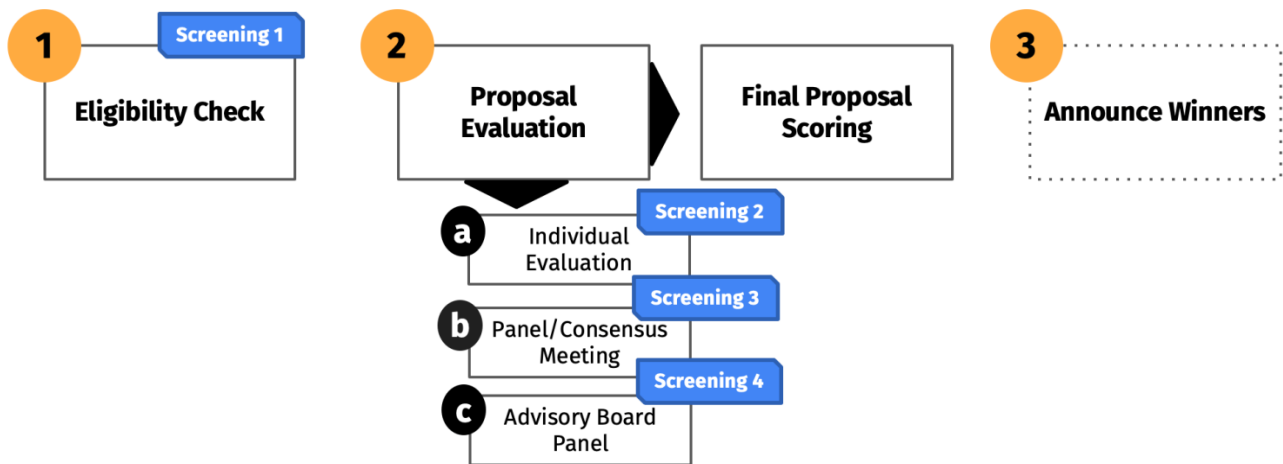
Figure 1: AI4Copernicus Evaluation Process Overview

2.4.1 Eligibility Check (SCREENING #1)

Proposals went through an eligibility check based on the eligibility criteria that have been specified by the AI4Copernicus partners. This process was conducted during October 2021.

First, the Open Calls Team prepared a set of *Eligibility Forms* used for conducting the process (see Appendix A), and identified a list *of evaluators*. Four (4) evaluators (from NCSR-D) were selected for conducting the eligibility check.

A set of proposals is assigned to each evaluator by the Open Calls Team ensuring fair distribution of workload and expertise among the evaluators. Once the allocation was finalised, the evaluators gained *access to the proposals* and eligibility forms through the NextCloud platform. The reviews of the proposals were conducted on an individual basis by all the assigned evaluators, and once the reviews were completed, all evaluators submitted their respective proposal eligibility forms to the Coordinator for the final signing and approval.

2.4.2 Individual Evaluation (SCREENING #2)

Proposals were evaluated by 2 (two) AI4Copernicus evaluators with wide expertise in AI within the fields prioritised in the industrial domains targeted by AI4Copernicus. This process was conducted during October 2021.

First, the Open Calls Team prepared a set of *Individual Evaluation Forms*, used for conducting the process (see Appendix B). All partners provided the names of the evaluators that were actively involved during the 1st open call review phase through a common spreadsheet.

In the next step, the Open Calls Team proceeded with the *allocation of evaluators for each proposal*, with a standard of two (2) evaluators assigned per proposal. The allocation process adhered to the guiding principles set forth by the consortium partners, ensuring a comprehensive evaluation.

According to these principles, each proposal was assigned to two reviewers from different participating organisations, and additionally, an extra reviewer per industrial domain was put on hold as a contingency measure in case any issues or challenges arose during the evaluation process. Additionally, the allocation of panel chairs was carried out (see next subsection for more details).

A dedicated *Evaluators Meeting* was organised by NCSR-D for informing the evaluators about this process, and involved a presentation and discussion with all involved participants and a video recording of the workshop for all evaluators and panel chairs.

An important step in this process was the signing of the *Evaluation Service Agreements*. These documents were prepared by NCSR-D and were signed by all evaluators and panel chairs (prior to the finalisation of the individual evaluations-26th of October), so that legal compliance can be ensured. The scope of this Agreement is to set the specific obligations, regarding evaluation procedures and confidentiality in the context of the Open Calls evaluation process. This Agreement has been signed between the Project Manager and each evaluator separately.

After all these preparatory steps, the Individual Evaluation process was carried out offering a period of 2 weeks for each evaluator to complete their assigned proposals. The deadline for completing the individual evaluations was set at 26th October 2021, 09:00 CET.

Finally, we close this subsection with some details regarding access to proposals. The distribution of proposals between evaluators was done via the NextCloud platform; Distinct access rights (i.e., view rights and edit rights) were given to each evaluator and panel chair depending on their assignments; At first, all evaluators and panel chairs were given access to the next cloud repository, but upon completion of the individual evaluations (26th October 2021, 09:00 CET), the evaluators' access rights changed to "view rights" only for the proposals that they acted as reviewers.

2.4.3   Panel Consensus Meetings (SCREENING #3)

AI4Copernicus Domain experts acted as Proposal Chairs in the dedicated Evaluation and Consensus Panels that were organised for each individual proposal. These panels also involve the 2 proposal Evaluators (that participated in SCREENING #2). This process was conducted during October and November 2021.

The allocation of panel chairs per industrial domain was carried out by NCSR-D, and involved 1 panel chair per domain at minimum. The following panel chairs have been appointed:

- Agriculture Chair #1: Lorenzo Bruzzone (UNITN)
- Agriculture Chair #2: Costas Spyropoulos (NCSR-D)
- Energy Chair: Richard Hall (EQUINOR)
- Health Chair: Vasileios Baousis (ECMWF)
- Security Chair: Michele Lazzarini (SATCEN)

First, a series of preparatory actions were carried out. The *Panel Evaluation Forms* were prepared by NCSR-D and shared with the panel chairs and the consortium (see Appendix C). Then, a dedicated *Panel Evaluation Meeting* (October 2021) was conducted with all panel chairs and NCSR-D to discuss any issues, concerns, etc and align before conducting the panel chair meetings. Panel Chairs had also to confirm that all individual evaluators reports were uploaded appropriately.

After these actions, the actual *Panel Consensus meetings* were carried out as follows: each panel chair was advised to arrange a short global call with all the reviewers in his domain at the end of all proposal-panel meetings. NCSR-D acted as an observer in these calls so as to ensure the alignment of all domains before the final meeting with the Advisory Board. During and after each meeting, the aforementioned *Panel Evaluation Forms* were filled in by their corresponding Panel Chairs and uploaded in each proposal's folder in NextCloud.

Finally, after the end of the panel meetings, a dedicated Panel Chairs Meeting was organised for coordination in view of the Advisory Board Meeting (12th November 2021).

2.4.4 Advisory Board Meeting (SCREENING #4)

During this final screening the chairs of the Evaluation Panels presented the outcomes of "Screening #3" to the Expert Advisory Board. This process finalised the list of Successful Projects to be funded. Once this process was concluded, the Public Announcement of the Results was made available. This process was conducted during November 2021 (with some preliminary actions during October 2021).

First, a series of *preparatory activities* were carried out. An "*Advisory Board Briefing Meeting*" was organised by NCSR-D. This meeting informed the Advisory Board about the process and it took place on the 18th of October 2021 (online meeting). Additionally, *access to briefing material* was provided (with view rights) to the Advisory Board Members to a (only) distinct folder in its private NextCloud Repository.

The actual "*Advisory Board Meeting*" in which the final proposal screening was held on 16th November 2021, 10:00-18.00 (Athens Time) (online meeting). The participants were the Advisory Board Members, the Panel Chairs and the NCSR-D coordination team. The process of the meeting was the following: First, a short presentation of each of the 9 top-ranked proposals was given by the Panel Chairs. Then, an open discussion (questions, clarifications, suggestions) was held as part of the evaluation process on behalf of the Advisory Board. Then, some suggestions were given regarding the ranking, and finally, the finalisation of the scores and the ranking was carried out.

2.4.5 Selection of successful proposals

Following the Advisory Board Meeting, NCSR-D updated the projects' Evaluation Forms in terms of scoring and comments.

- Selected Projects (6)
- Projects on Reserve List (3)
- Rejected Projects (25)

2.4.6 Informing applicants

The final step was to finalise the list of successful proposals and to inform the applicants. These final activities were conducted during December 2021.

The preparatory activities included the preparation of the notification letters (34 projects) and the finalisation of texts per status of proposal, the establishment of the Open Calls email address:

calls@ai4copernicus-project.eu, and the establishment of a dedicated file folder on Nextcloud with the finalised personalised documents included in the notification process.

The *Delivery of Notification* to all participants (see Appendix E) was held on December 23rd 2021 via the dedicated email address together with the Finalised ESRs. For the 6 Selected Projects, the notification comprised an Introductory Notice, an attached Invitation Letter and a request or confirmation of PIC availability or the provision of guidelines in case of unavailability. For the remaining proposals, the notification comprised an Informative Notice for the Proposals on Reserve List (3) and the Rejected Proposals (16 above threshold / 9 below threshold).

2.5   Grant Agreement

The *Grant Agreement process* involves the signing of contractual arrangements with the beneficiaries (selected AI4Copernicus project consortia), during the 1st Round of Open Calls.

2.5.1   Sub-grant Agreement Preparation

To facilitate the sub-grant agreement process, the Open Calls team have established a collaborative monitoring spreadsheet and a dedicated directory on NextCloud exclusively for funded projects. The sub-folders within this directory follow a consistent structure, housing the submitted proposal, bank account details, and the sub-grant agreement (including text and annexes). These tools ensure the streamlined organisation and easy access to the essential documents throughout the sub-grant agreement process.

In the following step, several *personalised follow-up communications* to Selected Projects were carried out. In each communication, a set of annex templates and a deadline for providing the completed version of each annex are given to each project. This process was done in several batches: (1) the projects were provided templates of Annexes 5, 6, 7, 8 on 30/12/2021 and they delivered the completed versions on 30/12/2021, (2) the projects were provided templates of Annexes 1, 2 on 27/01/2022 and they delivered the completed versions on 18/01/2022, and (3) the projects were provided templates of the remaining on 08/02/2022 and they delivered the completed versions on 18/02/2022.

Apart from the Annexes for the Grant-agreement, a "Technical Details document" (see Appendix F) where each project answered questions about their cloud resources requirements. The projects were provided this document on 02/02/2022 and they delivered the completed version on 04/02/2022. Finally, on 18/02/2022 each project and each participating entity delivered its logo.

2.5.2   Sub-grant Agreement Finalisation

As of 18/02/2022 all Annexes that make up the Sub-grant agreement were delivered, that is:

- Annex 1: Description of the Action (Proposal Template and Supplement)
- Annex 2: Estimated Budget for the Action
- Annex 3: Technical Progress Report Template
- Annex 4: Costs Report Template
- Annex 5: Bank Account Information
- Annex 6: Sub-Project Consortium Declaration

● Annex 7: Selected Third Parties' Declaration of Honour
● Annex 8: SME Declaration

The Sub-grant Agreement texts were finalised based on received comments, adjusted accordingly, and shared with the Selected Projects for review. After necessary adjustments, the final texts of each Sub-Grant Agreement were reviewed and approved. The Sub-Grant Agreements were then shared with the respective Sub-project Leaders, who reviewed and signed them between March and April 2022.

Upon completion of the signing process by the Sub-project Leaders, the agreements were forwarded to the President of NCSR-D, who reviewed and signed them on April 7, 2022. Fully executed copies of the agreements were subsequently shared with the six Sub-Project Leaders on the same day, ensuring all parties had access to the final and officially signed agreements.

2.5.3 List of Selected projects

The 6 projects selected for funding from the 1st Open Call are the following:

● SR4C3 - Super Resolution for Climate Crisis Context
● SCAVIHO - Scalable Vegetation Index and Harvesting Forecaster
● SLIDE - Satellite Images Prediction with Deep Learning
● VALENS - AI 4 Copernicus Blue
● Sen4Weeds - Automatic detection and mapping of in-field weeds
● HumanityWatch

2.6 Phase 3: Support Phase

The *Support phase* covered a period of 14 months and involves the *Initial support sub-phase*, which involves the preparation and launch of the AI4Copernicus selected projects (5 months), the *Interim assessment*, which provides an initial feedback of the AI4Copernicus projects progress (1 month), the *Final support sub-phase* (6 months), in which the implementation of the projects continues, taking into account the feedback from the interim-assessment, and, finally, the final assessment (2 months), which involves the final evaluation of the output of each project. During this phase, a series of mentoring and support services is provided in the project.

This process was conducted from April 2022 to May 2023. The timeplan for the support phase is shown in the following table:

Initial Support Phase					Interim Assessment	Final Support Phase						Final Assessment	
M1	M2	M3	M4	M5	M6	M7	M8	M9	M10	M11	M12	M13	M14
Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May
2022									2023				

Table 1: 1st Open Call Support Phase Timeplan

2.6.1   Assignment of Support Officers

Support Officers were assigned to each Selected Project in February 2022 to provide dedicated assistance and guidance throughout the project's duration. The assignment of the Support Officers to the 1st Open Call projects can be seen in the following table:

Project	Support Officer	Organisation
SR4C3	Michele Lazzarini	SatCen
SCAVIHO	George Stamoulis	UoA
SLIDE	Richard Hall	Equinor
	Antonis Troumpoukis	NCSR-D
VALENS	Adrian Luna	SatCen
Sen4Weeds	Lorenzo Bruzzone	UNITN
	Giulio Weikmann	UNITN
HumanityWatch	Omar Barrilero	SatCen
	Mihai Alexe (until Sep 2022)	ECMWF
	Mohanad Albughdadi (from Dec 2022)	ECMWF

Table 2: Allocation of Support Officers

In order to ensure the effective coordination and collaboration among the Support Officers, a series of Support Officers Coordination Meetings were scheduled. The first coordination meeting took place on March 1st, 2022 and the second coordination meeting was held on April 4th, 2022. Additionally, as part of the monthly calls for WP6, a monthly meeting was included to facilitate reporting of the progress of the Projects to the WP6 Lead and the rest of the consortium, as-well-as ongoing discussions, updates, and coordination among the Support Officers.

2.6.2   Other Preparatory Activities

In March 2022, a dedicated mailing list was established for the 1st Open Call Selected Projects, fostering direct communication between the Open Calls team and the members of the selected projects.

Subsequently, in April 2022, a secure working environment was established using the NextCloud platform. This environment aimed to support the implementation of the projects and facilitate effective communication between project teams and Support Officers. It provided a secure space where project-specific monitoring materials were shared, enabling project teams to track their progress in a summarised format. Additionally, an overview of monthly updates per project was made available, ensuring transparent and comprehensive reporting.

2.6.3   Award Ceremony & Technical Workshop

An Award Ceremony was organised on March 3rd, 2022. In this public event winning proposals of the 1st Open Calls were announced thus providing the general public an opportunity to meet the winners and the funded solutions by the AI4Copernicus project in collaboration with WP7.

Furthermore, a Technical Workshop was conducted, exclusively tailored for the selected projects. This was a closed event and featured an introduction to the Support Officers to the Open Call Projects and a presentation of the AI4Copernicus services that were made available by the technical partners of the consortium (Bootstrapping Services, Cloud Resources, and Linked Data tools). The agenda of the closed event is shown as follows:

Thursday 3 March 2022			
11:00-11:05	Welcome & Introduction	NCSR-D	*Vangelis Karkaletsis*
11:05-11:10	Welcome from the Project Officer	European Commission	*Esther Díez Pérez*
11:10-11:15	Welcome from the Support Officers	AI4Copernicus Partners	
TECHNICAL WEBINAR : Moderator Manolis Koubarakis			
11:15-12:10	**Overview of bootstrapping services (SATCEN**, 5-10 min) ● Security (**SATCEN**, 10 min) ● Agriculture (**UniTN**, 10 min) ● Health (**ECMWF**, 10 min) ● Energy (**EQUINOR**, 10 min) ● Q & A session (10 min)	**WP5 Partners**: SATCEN, UniTN, ECMWF, EQUINOR	*Michele Lazzarini* *Omar Barrilero* *Lorenzo Bruzzone* *Giulio Weikmann* *David Hassan* *Andreina Chietera* *Mihai Alexe* *Richard Hall*
12:10-12:30	**Overview of cluster and resources provided by CREODIAS, Wekeo** - Overview - Demo (5 min) - Q/A (5 min)	CloudFerro SatCen	Overview: *Marcin Ziółkowski* Demo: *Omar Barrilero*
12:30-12:45	**Overview of common services: linked data tools (UoA)**	UoA	*George Stamoulis*
12:45-13:00	**Overview on how resources can be integrated in AI4EU Experiments**	AI4EU, Fraunhofer IAIS	*Martin Welss*
13:00-13:05	*Next Steps*	NCSR-D	*Vangelis Karkaletsis*

Table 3: Agenda for the 1ˢᵗ Technical Meeting Workshop

2.6.4   Incubation Services

As a part of the supporting services of the AI4Copernicus, the following sessions were delivered to the projects selected during the 1ˢᵗ Round of Open Calls:

Project-specific support Services:

● Monthly Meetings of each Support Officer with the corresponding Project Representative (or bi-weekly meetings depending on project needs), so as to ensure the smooth

implementation of each project. In each of these meetings, held throughout the support phase of the projects (M1-M14), the Project Representative reports the progress of the project and together with the Support Officer discuss any possible Problems, Needs, or any other Issues on both the technical and the business level.

● Ad-hoc meetings with technical or business experts from the AI4Copernicus consortium partners wherever the projects needed some help or guidance with their development.

Technical Workshops:

● 1st Technical Workshop: "Overview of all technologies, platforms", held on March 3rd, 2022 by the Technical partners of the AI4Copernicus. The contents and the structure of the workshop was described in a previous section.

● 2nd Technical Workshop: "Cloud Infrastructure". 1-to-1 meetings for each project between the Project Representative and the Contact Point of CloudFerro. In this meeting details about the Cloud Resources and infrastructure needed from the project are discussed, in order for CF to grant the cloud resources to the project. These meetings were organised during the initial support phase of the projects (M1-M5).

● 3rd Technical Workshop: "AI-on-Demand platform", held on March 8th, 2023 by NCSR-D. Speakers: Antonis Troumpoukis (NCSR-D, AI4Europe project), Iraklis Klampanos (NCSR-D, AI4Europe project), Alexandros Tzoumas (NCSR-D, AI4Europe project). The workshop started with a short presentation about the AIoD platform architecture, followed up by a tutorial on how resources are published on the AIoD CMS platform (https://www.ai4europe.eu/), then followed by a short session on the obligations of the AI4Copernicus Open Call projects regarding AIoD platform, and finally ended with a 15-minute Q&A session.

Business Sessions:

● 1st Business Session: "*Challenges and Practices of Organizations in Developing AI capabilities*" Date: August 30th, 2022. Speaker: Theos Evgeniou (INSEAD).

● 2nd Business Session: "*Business implications of the AI lifecycle*" Date: November 8th, 2022. Speaker: Theos Evgeniou (INSEAD).

● 3rd Business Session: "*AI explainability and Trust*" Date: February 17th, 2023. Speaker: Theos Evgeniou (INSEAD).

AI-Ethics Workshops:

● AI Ethics Introductory Session: "*Ethical and Trustworthy AI (aligned with the European Trustworthy AI principles) & best practices*". Date: 31st August 2022. Speakers: Xenia Ziouvelou (NCSR-D), Alexandros Nousias (NCSR-D).

● Ethical & Trustworthy AI self-assessment per project: all projects used the "*Ethical & Trustworthy AI assessment*" tool, created by NCSR-D during the "development phase" of the

projects. Following the AI Ethics Session, the tool was filled in by each project and each support officer separately (in order to have two opinions). The completed tools were delivered to NCSR-D by October 13th, 2022.

- Ethical AI workshops (1-on-1 workshops for each project): Dates: October-November 2022. These meetings include a discussion utilising as input the completed "*Ethical AI assessment*" tool of each project. The projects are encouraged to revise the tool after the discussion and share its updated version by November 17th, 2022.

- The *AI Ethics Assessment feedback* for the 1st open call projects was provided from NCSR-D to the projects via Nextcloud. The AI Ethics assessment documents provide feedback for all the assessment areas and conclude with a set of concrete recommendations that aim to help each project for the next phase based on the project-specific needs that have been identified.

Communication and Dissemination activities:

- The communication team (WP7) has created a weekly social media campaign titled "*Meet the winners*" (started May 2022) which aims to promote further the projects which resulted from the 1st Open Call. For every project, a specific banner, a short video of the Project Representative pitching the project, a 3-question interview, and several other details (Abstract, Consortium members, Countries, types of beneficiaries), were communicated. A new section "Winning Projects" was created on the website to highlight this action.

- In coordination with the Communication team (WP7), a physical event titled: "Artificial Intelligence Ecosystem Forum 2023" will be organised on Thursday 29 and Friday 30 June 2023, where the Open Call projects have the opportunity to pitch their ideas in a wide audience consisting of strategic players and leading stakeholders of the AI and EO domains.

2.6.5 Other activities

Several communications were held regarding availability and feedback of the AI4Copernicus services. In July 26th 2022 (and in follow-up communications) the Open Calls team informed the projects about the availability of the Docker registry where the Bootstrapping Resources of WP5 were made available for the projects, together with a spreadsheet for collecting feedback as requested by WP5 (reported in Deliverable D5.2). On November 7th 2022, the Open Calls team shared to the projects a questionnaire for collecting feedback on the Bootstrapping Resources as requested by WP2 in the context of D2.3.

In December 13th 2022, the Open Calls team shared with the projects a questionnaire for "collecting natural language questions for discovering EO datasets" as requested by WP3 in the context of collecting user requirements for the development of the EarthQA engine.

Following the 3rd Technical workshop on AIoD, the projects were requested to submit on the AIoD CMS one organisation page for each project partner and one AI asset page for each asset developed within the project. Moreover, they were requested to provide answers to 3 questions, which were

used by NSCR-D to draft a case study per project. After that, all created pages (organisations, AI assets, and Case Studies) were linked by NCSR-D under the AI4Copernicus project page.

2.6.6 Interim assessment

The interim assessment of the 1st Open Call projects was carried out during September 2022 (M6). The assessment was carried out as reported in Deliverable D6.1 (see Section 2.7 of D6.1 for the interim assessment criteria).

The assessment panels for the interim assessment phase consist of one Advisory Board (AB) member per project, along with one or more Project Representatives from each project and the project's appointed Support Officers. The format of the assessment panel for each project is approximately 1 hour long, conducted online, and scheduled to take place between September 12th and 16th, 2022. The structure of each panel session starts with a 30-minute presentation of the project (based on a predefined presentation template) by the Project Representative, followed by a 15-minute Q&A session with the AB member and the Project Representative. The remaining 15 minutes are dedicated to a discussion and feedback session exclusively between the AB member and the Support Officers, without the presence of the Project Representative. The assessment results are recorded and submitted in a predefined spreadsheet.

In preparation for the interim assessment, a series of notifications were sent out to ensure all stakeholders were informed about the upcoming assessment process. On July 29th, 2022, an email was sent to all Selected Projects and their respective Support Officers, via the mailing list, providing information about the Assessment Panels, the format of the review, the structure of the panels, and the specific time plan. Similarly, on August 1st, another round of notifications was sent out, this time to all appointed AB Members. The email provided them with an introduction to the project assigned to them, along with the details of their appointed Support Officer. It also reiterated the information on the Assessment Panels, the review format, the panel structure, and the overall time plan for the interim assessment.

The Open Calls Team followed up communication between respective parties till the finalisation of each Interim Review Meeting, and the Communications' Team prepared the respective meeting links (via Zoom platform). The finalised Review Meetings' plan was the following:

Project	Meeting Date	AB member	Support Officer(s)
SR4C3	15/9/2022, 10:00 CET	P.P. Mathieu	M. Lazzarini
SCAVIHO	12/9/2022, 08:00 CET	I. Papoutsis	G. Stamoulis
SLIDE	12/9/2022, 16:00 CET	M. Sarkar	R. Hall & A. Troumpoukis
VALENS	16/9/2022, 15:00 CET	G. Sawyer	A. Luna
Sen4Weeds	16/9/2022, 10:00 CET	I. Papoutsis	L. Bruzzone & G. Weikmann
HumanityWatch	16/9/2022, 09:30 CET	A. Arnaud	O. Barrilero

Table 4: Interim Assessment Meetings

Following the completion of the Review Meetings, the AB Member & SO shared the completed Assessment Forms with the Open Calls' Support Officer, where the selected projects were all considered to be successful and allowed the projects to transition to the next phase.

On September 30, 2022, all selected projects were informed on the successful completion of the Interim Review Process and their transition to the next phase, as well as on the time-plan for the Final Assessment (M13-M14). Last, the Support Officers, who were copied in these communications, were asked to provide additional feedback to the projects on the Assessment results during their follow-up meetings.

2.6.7 Final assessment

The final assessment of the 1st Open Call projects was carried out during May 2023 (M14). The assessment was carried out as reported in Deliverable D6.1 (see Section 2.7 of D6.1 for the final assessment criteria).

The assessment panels for the final assessment phase maintained the same structure as those of the interim assessment. The format of the assessment panel for each project remains unchanged, with sessions scheduled to take place between May 23th and 30th, 2023.

In preparation for the final assessment, a series of notifications were sent out, mirroring the procedures implemented during the interim assessment. The projects were notified on March 21th and the Advisory Board members on May 16th 2023. The Open Calls Team followed up communication between respective parties till the finalisation of each final assessment meeting, and the Communications' Team prepared the respective meeting links.

The finalised Review Meetings' plan was the following:

Project	Meeting Date	AB member	Support Officer(s)
SR4C3	26/5/2023, 10:00 CET	P.P. Mathieu	M. Lazzarini
SCAVIHO	23/5/2023, 13:30 CET	I. Papoutsis	G. Stamoulis
SLIDE	26/5/2023, 11:00 CET	M. Sarkar	R. Hall & A. Troumpoukis
VALENS	25/5/2023, 14:30 CET	G. Sawyer	A. Luna
Sen4Weeds	25/5/2023, 11:00 CET	I. Papoutsis	L. Bruzzone & G. Weikmann
HumanityWatch	30/5/2023, 16:00 CET	A. Arnaud	O. Barrilero & M. Albughdadi

Table 5: Final Assessment Meetings

Following the completion of the Review Meetings, the AB Member & SO shared the completed Assessment Forms with the Open Calls' Support Officer, where the selected projects were all considered to be successful, and allowed the projects to transition to the next phase.

2.7 Phase 4: Sustainability Phase

This phase will facilitate the sustainability of the selected projects of the 1st Open Calls. This phase will start in June 2023 and will conclude in July 2023. For this reason, the activities of the sustainability phase will be reported in Deliverable D6.5. We have planned several actions in order

to facilitate the sustainability of the use-cases of the winners of the 1st Open Call and the AI4Copernicus & AIoD ecosystems.

Commercialisation mentoring service by AI4Copernicus: Regarding the sustainability of the winners of the open call, we have already scheduled a dedicated commercialisation mentoring service (for successfully entering the market) as well as the acquisition of the AI4Copernicus Trustmark (for enhancing their trustworthiness in the marketplace).

Sustainability mentoring: Regarding the sustainability of the AI4Copernicus & AIoD ecosystems, we will organise several dedicated 1-on-1 workshops with the projects. These workshops will aim at collecting user-feedback on assessing and testing or the current AI4Copernicus and AIoD offerings, and providing user-driven policy feedback, in particular:

- User-driven propositions for service optimizations and potential extension both for (a) AI4Copernicus ecosystem, (b) AIoD platform
- User-driven policy guidelines for AI-adoption and the barriers and challenges at a micro (platform-ecosystem level) and macro (generic level) for European micro-enterprises and SMEs

This phase will conclude with the provision of the AI4Copernicus Trustmark (see Chapter 4 for further details).

3 Results

In this section, we present an overview of the results of the 1st Open Call. We first present the list of funded projects together with some information about each project, and then we continue with presenting some information on the usage of the AI4Copernicus services and the utilisation of the AIoD platform in the context of the 1st Open Call.

3.1 Winning Projects

The list of the Winning Projects can be shown in the following table:

Project's Acronym	Project's Name	Domain	No of Enterprises	Type of Enterprises	Technological Status	Countries
SR4C3	Super Resolution for Climate Crisis Context	Security	2	SMEs	Technology advanced company	Austria
					Low-tech company	Belgium
SCAVIHO	Scalable Vegetation Index & Harvesting Forecaster	Agriculture	2	SMEs	Technology advanced company	Spain
					Low-tech company	
SLIDE	Satellite Images Prediction with Deep Learning	Energy	2	SMEs	Technology advanced company	France
					Low-tech company	
VALENS	AI 4 Copernicus Blue	Security	3	SMEs	Technology advanced company	Belgium
					Low-tech company	
					Technology advanced company	Norway
Sen4Weeds	Automatic detection and mapping of in-field weeds	Agriculture	3	SMEs	Technology advanced company	Norway
					Low-tech company	
					Technology advanced company	Switzerland
Humanity Watch	Humanitywatch	Security	2	SMEs	Technology advanced company	France
					Low-tech company	

Table 6: 1st Open Call Winning Projects

3.1.1 SR4C3

Companies: SISTEMA GmbH / cmc-consulting (Conflict Management Consulting – CMC)

Countries: Austria, Belgium

Domain: Security

Abstract of the project: The "Super Resolution for Climate Crisis Context – SR4C3" proposed action is coordinated by SISTEMA GmbH and aims at bringing innovation to the climate crisis sector by enhancing the remote sensing based technological tools through the application of Artificial Intelligence (AI) algorithms on security domain challenges, with the support of the Conflict

Management Consulting – CMC company. The integration of Earth Observation (EO) satellite data in the usage of new Super Resolution (SR) AI-based applications is particularly crucial for better information gathering and assessments in conflict or crisis affected areas otherwise largely inaccessible, to effectively contribute to global stability and peace. In particular, the combination of an AI-based SR tool with Copernicus satellite data can support crisis response to flash flood disaster and conflict monitoring in the West Darfur (Sudan), a fragile geographic area in terms of security. Starting from the available AI/SR prototype developed by SISTEMA, the SR4C3 methodology is planned to be launched as innovative and scalable service with an expected relevant business impact, in creating value propositions and awareness, by allowing an automatic increase of the EO data resolution and improving the potential geospatial intelligence output. The AI technology transfer to the security application domain is guaranteed by high-tech application components, docker-based cloud services as infrastructure and AI4EU, CREODIAS at data access level.

Page: https://ai4copernicus-project.eu/sr4c3-super-resolution-for-climate-crisis-context

3.1.2   SCAVIHO

Companies: ENCORE LAB / MAETIERRA IAE

Countries: Spain

Domain: Agriculture

Abstract of the project: Normalised Difference Vegetation Index (NDVI) is widely used in precision agriculture due to versatility and reliability in reporting general crop's canopy status and is used during all the season. NDVI values range from 0 to 1, and although extreme values are well interpreted by farmers as a sign of problems in the crop (lack or excess of water or nutrients), intermediate values during the growing stage are not used due to its difficulty of interpretation although they can disclose important information about growing evolution of the crop. The main objective of the project is to broaden the intermediate values of NDVI corresponding to the growing stage of a crop and to provide a scale according to the phenological status of the crop with the aim of help farmers to assess the growth evolution, to advance hidden problems and to forecast harvesting dates based on historical NVDI Sentinel-2 data.

Page: https://ai4copernicus-project.eu/scaviho-scalable-vegetation-index-and-harvesting-forecaster

3.1.3   SLIDE

Companies: Solaïs / Transvalor

Countries: France

Domain: Energy

Abstract of the project: The two project partners, Solaïs and Transvalor, will develop satellite images forecasting techniques using advanced Deep Learning (DL). The goal is to improve short term solar irradiation forecasts in the 15 minutes to 6 hours range, which is critical for off grid sites or isolated power grids. Innovative Deep Learning methods will be tested and validated against standard (persistence) and Machine Learning methods on past data. A special care will be taken to represent rapid solar irradiation changes called ramps. Criterion for images forecast evaluation will be studied

to validate the forecast service over a large area. The result will be downstream services accessible through the AI4EU marketplace and running on a DIAS. Users will be able to provide geographical coordinates for which they need a forecast, and the request will be executed on DIAS hardware then output to the user.

Page: https://ai4copernicus-project.eu/slide-satellite-images-prediction-with-deep-learning

3.1.4   VALENS

Companies: Lelieur BV / VAKE AS / NSAS BVBA (North Sea Aviation Services)

Countries: Belgium / Norway

Domain: Security

Abstract of the project: The main ambition of the project is to create a platform for deep maritime insight, producing live alerts of high-risk vessels, and historical analysis to provide the past location and activity of vessels for potential proof for prosecution. Satellite imagery and satellite Radio Frequency (RF) surveillance is used for detections of hotspots and guidance on where this activity is happening by Vake and Lelieur. Whereas the inspection, reconnaissance and in-situ video collection are a part of the operational services being delivered by North Sea Aviation Services (NSAS, low tech SME). The VALENS consortium aims to showcase the power of data fusion, combining earth observation data from Sentinel-1, Sentinel-2, SAT-AIS, and satellite geo-location of Radio Frequency (RF) transmissions for improved intelligence and guidance of airplanes and drone patrols. The tools supplying alerts and locations of marine assets will be provided in containerised APIs which virtual drone/plane control towers can ingest. It will provide oversight, tracking, alerts, and guidance of marine operations in a GIS interface (e.g. patrols, drone deliveries, wind turbine or submarine cable inspections), essentially creating a novel virtual marine & airspace control tower.

Page: https://ai4copernicus-project.eu/valens-ai4-copernicus-blue

3.1.5   Sen4Weeds

Companies: DigiFarm AS / ALTYN Sarl / Farmen Gard

Countries: Norway / Switzerland

Domain: Agriculture

Abstract of the project: Sen4Weeds will develop a solution for automated large-scale detection and mapping of weeds in agricultural fields. The proposed technology leverages the latest advances in Remote Sensing and Artificial Intelligence and will utilise multiple AI models including super-resolved Sentinel-2 imagery developed by ALTYN and automated field delineation developed by DigiFarm, as well as AI-based spectral unmixing of Sentinel-2 multi-spectral imagery.

Page: https://ai4copernicus-project.eu/sen4weeds-automatic-detection-and-mapping-of-in-field-weeds

3.1.6   HumanityWatch

Companies: Pixstart / Keyaid Consulting

Countries: France

Domain: Security

Abstract of the project: Through this project, a remote sensing company already involved in several projects of land monitoring in sub-saharan Africa (Pixstart), is partnering with KeyAid consulting, specialised in NGO support, in order to address NGO needs for knowledge of actual geophysical states surrounding villages caught by crisis (available water, refugees camps size, agriculture status and capacity, …). As NGOs need fresh data, this project is using Sentinel 1 and 2 images, combined with contextual geographical, social network and topical data, in order to edit near-real time situation reports through a SaaS application. This project will combine two types of IA, for Sentinels data will be first processed by artificial neural networks, and then combined with contextual data by expert systems. Contextual geographical data will be for example Land Cover as provided by Copernicus services, while topical and social networks data will be gathered by KeyAid intelligence consultant. This project integrates a specific effort on the data visualisation to facilitate the user adoption of the application. This latter will be challenged by one of its future customers: Solidarités International, which participates in the project as a contributor.

Page: https://ai4copernicus-project.eu/humanitywatch

3.2   Usage of Bootstrapping Services & Cloud Resources

Bootstrapping Services: All projects have performed some level of testing of the Bootstrapping services. 2 of the 6 projects are using in their final product the Security Bootstrapping service from SatCen (in particular, one project is using the Sentinel-1 GRD preprocessing service and another project is using the Sentinel-1 GRD preprocessing service and the Sentinel-2 preprocessing service). The Health bootstrapping service by ECMWF was considered by 1 project, but they had some technical difficulties in integrating the service (but they will try to utilise the service in the future). Regarding the Agriculture bootstrapping services, 2 projects considered using the UNITN services but didn't use it eventually because they did not have suitable training data for their application, and 2 projects considered using the Thales service, but they didn't use it because they had an issue with the licence. No projects used the Energy datasets (they were irrelevant with their applications).

Cloud Resources: In order to carry out their implementation, each of the 1st Open Call projects received a fixed Cloud resources quota. Of the total of 6 projects, 5 projects utilised CREODIAS and 1 project utilised WEkEO. Regarding Cloud usage, 1 project had already a subscription plan with CREODIAS (thus they did not use any of the cloud resources offered), 1 project performed some training on CREODIAS and thus used ~50% of the resources (but they did most of their training in their own infrastructure), and the remaining projects used up to ~20% of their quota since they use CREODIAS and WEkEO mostly as a data broker and for deploying their final product.

Discussion: Though the number of projects from the open calls that use bootstrapping services and cloud resources may seem low at the moment, it can be attributed to the following factors: First, most projects didn't have the time or the technical expertise to utilise the offered services in their final product, so they used that they were planning before starting their projects. Second, there were some projects that were more mature and had already developed their own pipelines with their own AI modules and tools in their own infrastructures (or in other cloud providers) and were reluctant to change their workflow. However, since these conclusions were obtained mostly through

discussions with the Support Officers, we plan to discuss directly with the projects in order to obtain proper feedback about usage of cloud and bootstrapping resources during the Sustainability phase (see Section 3.6).

3.3 AI-on-Demand Platform

During the 1st Open Call, 14 organisations and 9 AI assets were submitted in the AIoD platform by the projects:

Project	AIoD organisation page
SR4C3	https://www.ai4europe.eu/ai-community/organizations/company/sistema-gmbh
	https://www.ai4europe.eu/ai-community/organizations/company/conflict-management-consulting-cmc
SCAVIHO	https://www.ai4europe.eu/ai-community/organizations/company/encore-lab-sl
	https://www.ai4europe.eu/ai-community/organizations/company/castillo-de-maetierra
SLIDE	https://www.ai4europe.eu/ai-community/organizations/company/solais
	https://www.ai4europe.eu/ai-community/organizations/company/transvalor
VALENS	https://www.ai4europe.eu/ai-community/organizations/company/vake
	https://www.ai4europe.eu/ai-community/organizations/company/north-sea-aviation-services
	https://www.ai4europe.eu/ai-community/organizations/company/shipdetectioneu
Sen4Weeds	https://www.ai4europe.eu/ai-community/organizations/company/digifarm
	https://www.ai4europe.eu/ai-community/organizations/company/altyn
	https://www.ai4europe.eu/ai-community/organizations/company/farmen-gard
Humanity Watch	https://www.ai4europe.eu/ai-community/organizations/company/pixstart

Table 7: Table of Organisations published in AIoD

Project	AIoD AI asset page
SR4C3	https://www.ai4europe.eu/research/ai-catalog/environment-monitoring-ukraine-conflict-areas
	https://www.ai4europe.eu/research/ai-catalog/environment-monitoring-mali-conflict-areas
SCAVIHO	https://www.ai4europe.eu/research/ai-catalog/dataset-phenological-stages-grapevines
	https://www.ai4europe.eu/research/ai-catalog/automated-pipeline-real-time-map-generation-and-scalable-nvdi-values
SLIDE	https://www.ai4europe.eu/research/ai-catalog/slide-satellite-images-prediction-deep-learning
VALENS	https://www.ai4europe.eu/research/ai-catalog/vake-pathfinder
	https://www.ai4europe.eu/research/ai-catalog/vake-overwatch
Sen4Weeds	https://www.ai4europe.eu/research/ai-catalog/automatic-detection-field-weeds-using-ai
Humanity Watch	https://www.ai4europe.eu/research/ai-catalog/quanteo-0

Table 8: Table of AI Assets published in AIoD

Finally, 6 case studies were submitted in the AIoD platform by NCSR-D, getting input by the projects. This procedure was followed in order to have a homogenised presentation of all case studies that came from the AI4Copernicus project winners:

Project	AIoD Case study page
SR4C3	https://www.ai4europe.eu/business-and-industry/case-studies/sr4c3-monitoring-environmental-damages-conflict-and-fragile
SCAVIHO	https://www.ai4europe.eu/business-and-industry/case-studies/scaviho-scalable-vegetation-index-and-harvesting-forecaster
SLIDE	https://www.ai4europe.eu/business-and-industry/case-studies/slide-satellite-images-prediction-deep-learning
VALENS	https://www.ai4europe.eu/business-and-industry/case-studies/valens-persistent-anchorage-monitoring
Sen4Weeds	https://www.ai4europe.eu/business-and-industry/case-studies/sen4weeds-automatic-detection-field-weeds
Humanity Watch	https://www.ai4europe.eu/business-and-industry/case-studies/humanitywatch-1

Table 9: Table of Case studies published in AIoD

A total of 29 pages were published in the AIoD CMS platform in the context of the 1st Open Call. These pages were linked under the AI4Copernicus project page.

4   AI4Copernicus Trustmark

AI4Copernicus Trustmark will be awarded to all the successful graduates of the project Open Calls process. The consortium has committed to ensure a high level of transparency, for granting the AI4Copernicus Trustmark to the selected winning projects. This will be done as part of activities of WP6 where the consortium will provide: (a) an overview of the Trustmark process and the award criteria (provided below); (b) an overview of Trustmark granting results, which will be included in D6.5 (M36).

AI4Copernicus will place emphasis not only upon the creation but also upon the sustainment of innovative data-driven AI solutions and services that will create socio-economic value. Towards this end the following activities will be pursued: (a) AI4Copernicus Trustmark: Trustmarks will be provided to the AI4Copernicus projects that will successfully "graduate" from the Open Calls process, in order to support and empower them further during the commercialisation process; (b) Access to the Market: Facilitate access to the market via the AIoD marketplace; (c) Understand challenges and success factors of using AI4Copernicus technologies by organisations through some in-depth interview based case studies.

Award Criteria for the AI4Copernicus Trustmark: aligned with the consortium's commitment for transparency, the project Trustmark will take into consideration, the following criteria that is:

- Deliverable quality (30%)
- Technical performance indicators (30%)
- Business performance indicators (30%)
- Ethical AI Assessment (10%)

In addition, a presentation "video pitch" that each team will make so as to provide an overview of their project and its accomplishments.

According with this final score we will have:

- **Best-in-class Projects (Graduates) having a score above 75%** will be awarded the AI4Copernicus Trustmark in order to support and empower them further during the commercialisation process.
- **Behind the Best-in-class.** For those beneficiaries who haven't reached the threshold, the Expert Advisory Board will consider all possible objective reasons for underperformance (i.e. external factors which might have influenced the beneficiaries' performance) and will provide suggestions for future improvement.

Finally, the AI4Copernicus Trustmark will comprise:

- A Trustmark icon/symbol.
- A dedicated repository of "Trusted AI4Copernicus" projects in the AI4Copernicus website that will include information about all the graduated projects.
- A code to embed the AI4Copernicus Trustmark in a company website or an AIoD catalogue page, used by open call winners to showcase their achievement.

Please note that an overview of Trustmark granting results, will be included in D6.5 (M36).

5   Conclusions and Next Steps

In this deliverable we presented the activities carried out in the context of the 1st Round of Open Calls procedures and progress for use-cases in the predefined high-value domains of Energy, Security, Agriculture, Health, as-well-as an overview of the trustmark process and the award criteria. The next steps for the 1st open call is the provisioning of the sustainability phase to the winning projects and the Trustmark granting process. These will be reported in Deliverable D6.5.

6   Appendix

6.1   Appendix A: Eligibility Form

ELIGIBILITY Summary Table

To be filled in by the evaluator at the end of the evaluation

FINAL ELIGIBILITY CHECK & PROPOSAL EVALUATION STATUS	
Pass to Stage 2 (Proposal Evaluation)	*Fail to Pass to Stage 2 (Proposal Evaluation)*
Tick the box that applies	
In case of "Fail to Pass", please denote the Eligibility Criterion or Criteria that are associated with this decision	

Proposal Eligibility Check

Eligibility Criteria	Eligibility Check (Yes/No)
1. Full alignment between the requested **type of Open Call Activity** (i.e., Use-Case, Small-Scale experiments, Social challenges, etc.) ?	
1a. **1st Round of Open Calls** for Use Cases in the areas of Health, Energy, Security, Agriculture	
2. Full alignment with the requested **type of Beneficiaries** for the 1st AI4Copernicus Open Call (i.e., Consortia of SMEs including at least 1 non-or low-tech SME by default) ?	
3. Are the submitted documents by the applicants in **English**?	
4. Are all the necessary Open Call documents submitted through the **AI4Copernicus Open Calls Platform**?	
5. Has the **submission deadline** been respected?	
6. Is there any **conflict of interest** with the AI4Copernicus selection process?	
7. All **required documentation** has been submitted?	

To be filled in by the evaluator (optional)

Comments

6.2 Appendix B: Individual Evaluation Form

General Overview

To be filled in by the evaluator

Proposal Evaluation Status:	*Eligible proposal for Stage 2 evaluation*
Proposal Title & Acronym:	
Primary Industrial Domain:	
Secondary Industrial Domain:	
Abstract:	

Evaluator Details

To be filled in by the evaluator

Name:	
Organisation:	
E-mail:	

Proposal Evaluation Overview

To be filled in by the evaluator

FINAL SCORING				
TOTAL SCORE	**Excellence Score**	**Impact Score**	**Implementation Score**	**Ethical Evaluation (Y/N)**

To be filled in by the evaluator (optional)

General Comments
Please provide any general comments that you may have (i.e., potential conflict of interest, consortium formation (low-technology SME), letters of support, etc.). These comments will facilitate our INTERNAL Evaluation process.

Proposal Evaluation

Please note that Criteria 1, 2, 3 are linked with the 'Proposal Form' and Criterion 4 with the 'Proposal Supplement'.

Criterion 1: Excellence

Criterion 1 evaluates:

- **1.1 Ambition.** The applicants have to demonstrate to what extent that proposed project is beyond the State Of the Art related with the application of AI in the areas targeted by the project for *Use-cases in 4 high-value priorities: Energy, Agriculture, Security, Health.* Applicants must describe the approach behind it (e.g., ground - breaking objectives, novel concepts and approaches, new products, services or business and organisational models).
- **1.2 Innovation:** Applicants should provide information about the level of innovation within their market and about the degree of **differentiation** that this experiment will bring.
- **1.3 Soundness of the approach:** Applicants should provide **concrete and verifiable arguments, and/or evidence**, with regard to the premises of the proposed ideas.

Criterion 1: Excellence		Score (0-5)
Sub-criteria:	1.1 Ambition 1.2 Innovation 1.3 Soundness of approach	
Comments for Criterion 1	*(Please provide your comments indicating whether they are a "Strength" (+) or a "Weakness" (-))* *Max up to 250 words*	

Criterion 2: Impact

Criterion 2 evaluates:

- **2.1 Economic impact:**
  - **2.1.1 Market opportunity**: The applicants have to demonstrate a clear idea of what they want to do and whether the new/improved product/process is addressing a concrete market potential within the economic fields addressed in the project, e.g., because it solves a problem for a specific niche.
  - **2.1.2 Competition**: The applicants have to provide information about the degree of competition for their particular product/process and if the idea is disruptive and breaks the market. i.e. the products/ process to be brought to market can be clearly differentiated from the competition.
- **2.2 Sustainability**: The applicants have to outline the strategy they will follow to get the scalability of the new/improved product/process beyond just solving a specific problem of a reduced number of end users.
- **2.3 Social impact:** The applicants have to show how the project might contribute to pave the way to, for example, new jobs, solve social challenges, and/or environmental challenges, etc.

Criterion 2: Impact		Score (0-5)
Sub-criteria:	2.1 Economic Impact 2.1.1 Market Opportunity 2.1.2 Competition 2.2 Sustainability 2.3 Social Impact	
Comments for Criterion 2	*(Please provide your comments indicating whether they are a "Strength" (+) or a "Weakness" (-))* *Max up to 250 words*	

Criterion 3: Implementation

Criterion 3 evaluates:

- **3.1 Team:** The applicants have to demonstrate their management and leadership qualities, their ability to take a concept from ideas to market. The team should be balanced and show a strong commitment of the beneficiary organisations they are part of.
- **3.2 Resources**. Demonstrate the quality and effectiveness of the resources assigned in order to get the objectives/deliverables proposed. One important aspect is that applicants have to make clear in the proposal the intended use of technologies available in the AI4Copernicus platform, datasets, including technical and business solutions. It should be described till what extent the expected non-financial support to be provided by AI4Copernicus, will be critical for the execution of the project.
- **3.3 Liaison with AI4EU and DIAS platforms:** The applicants should provide concrete evidence on expanding and deepening the integration of AI4EU with DIAS platforms, so as to enrich the   AI4EU service offering and enable far-reaching innovation between the AI4EU and DIASes.
- **3.4 Liaison with a critical mass of End Users:** The applicants should provide concrete evidence on their capabilities to reach out a critical mass of End Users that might adopt the resulting solutions

Criterion 3: Implementation		Score (0-5)
Sub-criteria:	3.1 Team 3.2 Resources 3.3 Liaison with AI4EU, DIAS 3.4 Liaison with critical mass of End Users	
Comments for Criterion 3	*(Please provide your comments indicating whether they are a "Strength" (+) or a "Weakness" (-))* *Max up to 250 words*	

Criterion 4: Ethical Evaluation (Yes/No)

Criterion 4 assesses:

- **4.1 Ethical Assessment -General:** Ethical Assessment is an integral part of the AI4Copernicus Open Calls proposals. Aligned with the <u>European Ethical Assessment in the context of the Horizon Europe Programme</u>, a general ethical assessment section has been integrated in the AI4Copernicus proposals.
- **4.2 Ethical AI Assessment:** Ethical AI by design is an integral part of the AI4Copernicus open calls projects from beginning to end. Thus, part of the ethical evaluation will be a dedicated AI Ethical Assessment. This will take place at the conceptual stage of the proposal not only to respect the legal framework including AI regulation but also to enhance the quality and envisioned impact of the AI4Copernicus Open Call projects. As part of the 1st Round of Open Calls, applicants will be asked to conduct an apriori self-assessment of their AI Projects by detailing whether any ethical concerns related to human rights and values could be raised (in general/overall project aim, as well as in relation to the input data, algorithm(s), AI model(s), Output) and detail how they will be addressed/mitigated.
- **4.3 Security:** The applicant confirms that there are no instances that raise security concerns.

Please provide your comments related to any potential issues that you consider important for the specific proposal (irrespective of whether they have been identified by the applicants).

Criterion 4: Ethical Evaluation		Mark (Y/N)
Sub-criteria:		
4.1 Ethical Assessment	Please provide your comments Max up to 250 words	
4.2 Ethical AI Assessment	Please provide your comments Max up to 250 words	
4.3 Security	Please provide your comments Max up to 250 words	

6.3   Appendix C: Panel Evaluation Form

General Overview

To be filled in by the panel chair

Proposal Evaluation Status:	*Eligible proposal for Stage 2 evaluation*
Proposal Title & Acronym:	
Primary Industrial Domain:	
Secondary Industrial Domain:	
Abstract:	

Panel Details

To be filled in by the panel chair

	Panel Chair	**Evaluator 1**	**Evaluator 2**
Name:			
Organisation:			
E-mail:			

Overview of the Individual Evaluations

To be filled in by the evaluator

FINAL SCORING	**Evalutor 1**	**Evaluator 2**
TOTAL SCORE		
Excellence Score		
Impact Score		
Implementation Score		
Ethical Evaluation (Y/N)		

To be filled in by the panel chair (optional)

General Comments
Please provide any general comments that you may have (i.e., potential conflict of interest, consortium formation (low-technology SME), letters of support, etc.). These comments will facilitate our INTERNAL Evaluation process.

PANEL EVALUATION OVERVIEW

To be filled in by the panel chair

FINAL SCORING				
TOTAL SCORE	**Excellence Score**	**Impact Score**	**Implementation Score**	**Ethical Evaluation (Y/N)**

Criterion 1: Excellence

[This section is the same as that of the Individual evaluation Form, see Appendix B]

Criterion 2: Impact

[This section is the same as that of the Individual evaluation Form, see Appendix B]

Criterion 3: Implementation

[This section is the same as that of the Individual evaluation Form, see Appendix B]

Criterion 3: Ethical Evaluation (Yes/No)

[This section is the same as that of the Individual evaluation Form, see Appendix B]

6.4   Appendix E: Applicant response email templates

Response template to a Selected Proposal

Dear Madame/Sir,

I am writing in connection with your proposal for the above-mentioned call.

Having evaluated your proposal, we are pleased to inform you that your proposal has passed this phase and we would now like to start the **sub-grant preparation phase.**
Please find attached the evaluation summary report (ESR) and the invitation letter for your proposal.
We would be grateful if you could inform the other members of your consortium of this letter.
Within the next few days, another email will be sent, regarding the next steps and the relevant Annexes to be filled in.

Kind regards,

Response template to a Proposal in the Reserve List

Dear Madame/Sir,

I am writing in connection with your proposal for the above-mentioned call.

Having evaluated your proposal, we would like to inform you that your proposal is currently placed on the reserve list.

Please find attached the evaluation summary report (ESR) for your proposal.

Please note that proposals in the reserve list might be invited to sub-grant preparation, if proposals with a higher ranking drop out. In that case, we will contact you.

We would be grateful if you could inform the other members of your consortium of this letter.

We thank you for your interest and hope that you will not be discouraged from applying to our Open Calls in the future.

Kind regards,

Response template to a Rejected Proposal (Above threshold)

Dear Madame/Sir,

I am writing in connection with your proposal for the above-mentioned call.

Having evaluated your proposal, we regret to inform you that, despite its merits, it can unfortunately not be funded because the score obtained does not suffice, given the budgetary resources available for the call.

Please find attached the evaluation summary report (ESR) for your proposal.

We would be grateful if you could inform the other members of your consortium of this letter.

We thank you for your interest and hope that you will not be discouraged from applying to our Open Calls in the future.

Kind regards,

Response template to a Rejected Proposal (Below threshold)

Dear Madame/Sir,

I am writing in connection with your proposal for the above-mentioned call.

Having evaluated your proposal, we regret to inform you that your proposal cannot be funded because the score obtained does not reach the minimum threshold necessary.

Please find attached the evaluation summary report (ESR) for your proposal.

We would be grateful if you could inform the other members of your consortium of this letter.

We thank you for your interest and hope that you will not be discouraged from applying to our Open Calls in the future.

Kind regards,

6.5   Appendix F: Technical details per third-party project

1. Are you going to use Kubernetes cluster or Virtual Machines VM?

2. What are your storage needs regarding your project?

3. What are the technical parameters/resources needed?

a. Memory needs (or if you are going to use the bootstrapping services, which of them):	
b. CPUs:	
c. GPUs:	

4. What is the desired speed of Network connection?

5. When do you need it? For how long?

6. Which DIAS are you going to use (CREODIAS and/or WEKEO)

7. When would you like to start using DIAS resources?

------End of Document------