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D 3.3. List of target groups for further support to access Copernicus Services; bespoke training plans for each target group

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List of Acronyms

AI	Artificial Intelligence
bavAIRia	Bavarian Aerospace Cluster
CoRdiNet	Copernicus Relays for digitalisation spanning a Network
CSO	Copernicus Support Office
DIAS	Copernicus Data and Information Access Services
EO	Earth Observation
ESA	European Space Agency
EU	European Union
gmv	Spanish private technological business group
IMR	Institute of Marine Research
LRA	Local / Regional Authority
SME	Small / Medium Enterprise
TeRN	Tecnologie per le Osservazioni della Terra e Rischi Naturali
ULEIC	University of Leicester
WP	Workpackage

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Executive summary

This document describes the methodology for defining the target groups for further support to access Copernicus services (Sections 2-5) and presents plans developed as part of WP3 of the CoRDiNet project for train-the-trainer webinars (Sections 6-7).

The target groups were defined on the basis of the survey of CoRDiNet partners and other Copernicus Relays, conducted over the summer months of 2019. The survey showed which institutional groups are considered to be of greater potential for new user cases, as well as the thematic sections where training of Relays is most needed.

The webinars will focus on Data access (DIASes and other points of access), as well as specific examples of applications and data access points for the thematic sections selected on the basis of training needs survey.

The webinars will be organised in the period between November and July 2020, in the framework of Task 3.4 of Work Package 3 (Awareness raising and provision of user-origiented information on Copernicus).

1   Introduction

This document, which describes target groups and plans for training webinars, has been produced by the CoRdiNet consortium as part of WP3 of the CoRdiNet project (H2020 Grant Agreement 821911).

2   The survey: topics and audiences

To start defining the target groups for training webinars, the CoRdiNet consortium, with the support of CSO, asked its members (except NEREUS, which is not a Relay) and other Copernicus Relays to respond to a survey.

The respondents were given a list of 12 topics and asked to select those that would be of interest. They were also given the opportunity to suggest other themes. The list of topics was based on the stakeholder analysis performed as part of WP2 and included the thematic areas that CoRdiNet partners rated as most relevant. These were:

data access and management

emergency services for early warning

natural disaster management

natural resources management

urban planning

forests monitoring

agriculture: crop classification and monitoring

planning: ecosystem wardship

planning: renewable energies

fisheries and coastal management

new services for tourism and leisure e.g. air quality

successful workshops and 1-2-1 engagement: interpersonal skills.

The consortium members and Copernicus Relays were also asked to share their experience of how difficult it is to engage with key user groups and where they see potential for new use cases. In the survey, we followed the classification of stakeholders developed in WP2 in which the four major user types are:

SMEs
LRAs / public authorities
research centres and universities
larger bodies and associations.

3 CoRdiNet partners that were surveyed

Of the six beneficiaries in the CoRdiNet consortium, five are Copernicus Relays, and the sixth is the not-for-profit association of 26 European regions who make use of space technologies (NEREUS). Only the Relays were surveyed.

Three of the Relays are regional organisations:

- TeRN, Basilicata, Italy – a regional business association (private-public consortium)
- bavAIRia Cluster Management Aerospace, Germany – an association with more than 180 members
- The University of Leicester, UK – hosting the East Midlands Centre of Excellence in Satellite Applications (EMCoE), and the National Centre for Earth Observation (NCEO).

Two members have a more national focus:

- gmv Aerospace and Defence, Spain – a privately owned company
- IMR, Norway – the Institute of Marine Research.

4 Copernicus Relays that have responded to the survey

The survey was distributed to 85 Copernicus Relays by CSO on 4 June. By 12 June 2019, responses had been received from the 5 consortium members (see the previous section) and the following 15 Relays (listed here in alphabetical order):

AgroInsider, an agro-consulting and technology developing company, Portugal

BfG, the German Federal Institute of Hydrology, Germany

CreoTech Instruments, a fast growing space-sector company, Poland

DLR, the German Aerospace Centre and the German National Space Agency

FEE, Fundación Empresarial Eurochile, a foundation of the EU community and the State of Chile

FFG, the Austrian Research Promotion Agency, Austria

Lazio Connect, Lazio regional association, a collaborative technical–legal platform supporting the Lazio innovation system, Italy

NSO, the Netherlands Space Office

PRAXI Network, a unit of the Foundation for Research and Technology, Greece

SIOS, Svalbard Integrated Arctic EO System and Knowledge Centre, Norway

SNSA, Swedish National Space Agency

Szent István University, Hungary

TeRN, Basilicata, Italy – a regional business association (private-public consortium)

TerraNIS, an innovative SME specialising in the design, development and sale of geoinformation services, France

U. de Chile, University of Chile

5 Survey results

5.1 Training needs

Training needs were aggregated by determining the percentage of respondents who indicated an interest in each topic or theme. While four Relays suggested other themes, there were no common responses.

We repeated the analysis treating responses from the five team members separately from those from other Relays.

The results of the survey are presented in figure 1, below, in which responses from CoRdiNet partner Relays are shown separately to those from other respondents. Copernicus Relays from both groups are interested in further training on data access and management. Training on the use and benefits of Copernicus for natural resources and planning ecosystems scored especially high for consortium partners.

Figure 1. Percentage of respondents requesting training on suggested topics.

Relays were given the option of providing more detail of content they would find useful within the topics they selected and suggested the following:

Data access and management – the advantages of the different DIAS, and how they compare in terms of price and quality to Google or Amazon services; automatic data access and downloading.

Emergency services – demonstrating the usefulness of high-temporal-resolution satellite data for early warning and continuous monitoring of natural and environmental hazards.

Natural disasters – the potential of high-resolution satellite data to map affected areas and assess damage; automatic identification of burnt area using Sentinel data.

Natural resources and forests – wood density maps; sustainable EO-based forest management services and forest site management. While this could be of interest to local and regional authorities, it is already done in others (for example, forest management and reporting is obligatory in Bavaria).

Respondents added the following topics to those given in the initial list:

- insurance and finance (bavAIRia)
- using Copernicus to boost innovation and funding possibilities (Lazio Connect)
- examples of successful services that add value (CreoTech Instruments)
- Copernicus for the Arctic (SIOS).

5.2   Audiences we engaged with and their potential for new user cases

CoRdiNet consortium partners produced an inventory of relevant LRAs and companies in each region as part of WP2, Task 2.1, Stakeholder identification and engagement (Deliverable D2.1). We classified stakeholders in the same way for the purposes of this survey.

We asked the consortium members and Copernicus Relays to rank the major groups by ease of engagement and potential for new use cases. The results are summarised in figure 2.
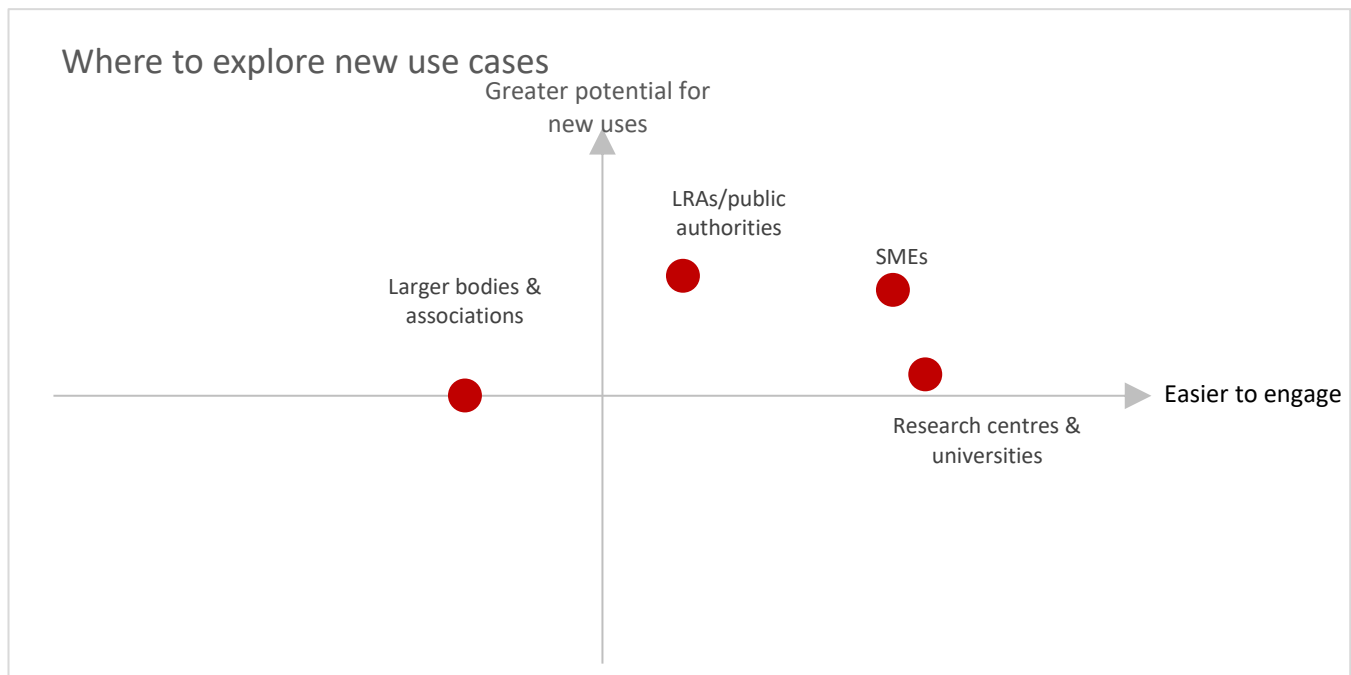

Figure 2. Major user types showing the ease of engagement and potential for new use cases.

The survey respondents also provided comments on the challenges they had faced and the main barriers to successful engagement with the different user groups. These are summarised below.

The easiest to engage with are *research centres and universities*. However, the potential for new user cases from these engagements is relatively low. Amongst the challenges the participants mention are budgetary and resource issues (academia is funds-dependent) and the focus on research rather than application to services or societal needs.

SMEs are also easy to engage with, as they are generally interested and open to innovation, and they have a large potential for new uses. According to respondents, the barriers to successful uptake from

these users are that they are too business-focussed and not always able to finance R&D activities. It is also often difficult to convince them of the benefits of EO if they do not have an EO-related team or trained personnel.

LRAs and public organisations are not as easy to engage with, but they have the highest potential for new use cases. The main challenges for engagement and fostering user uptake are the lack of specific knowledge and expertise and difficulties in finding first a suitable contact person and then gaining access to decision makers. Respondents also noted that such organisations also have internal guidelines for data sources which maybe a challenge to work within or change.

Larger bodies and associations are the most difficult to engage with and have least potential. This type of user normally has direct access to ministries and so does not need intermediaries such as Relays; they are often virtual rather than well-structured physical bodies, meaning the decision-making process is complicated; and many use other datasets for their operations and do not have the motivation to use EO data. Several respondents also noted that a lack of expert knowledge within these organisations leads to difficulty in making them aware of the benefits of the programme.

6 Plans for webinars

This survey has established the topics of interest for train-the-trainers webinars that will be aimed at CoRdiNet partners but also open to other Relays and the public.

It also demonstrates that local, regional and public authorities, and SMEs are the target groups that have most potential for new user cases.

The webinars will focus on the topics which were indicated by more than 50% of respondents (partners and non-partners of the Consortium), specifically:
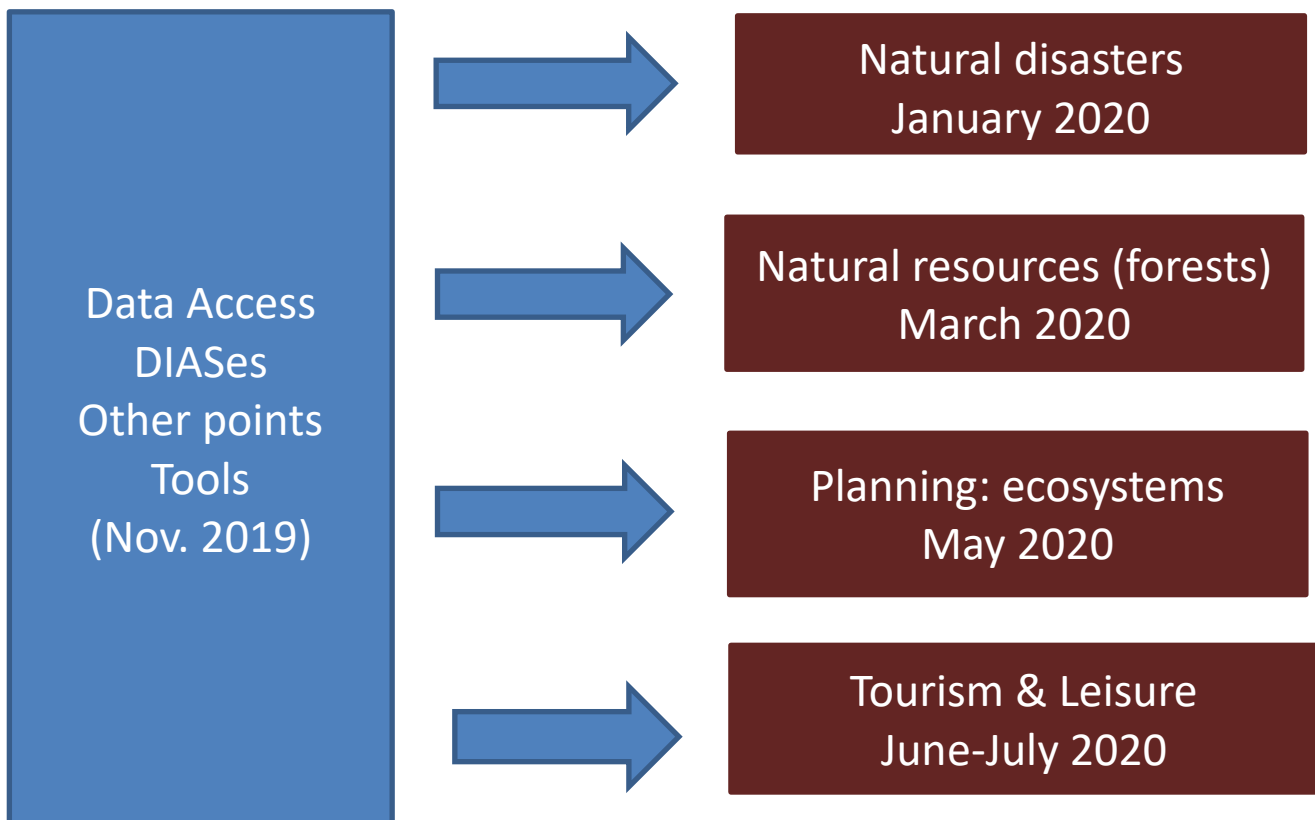
> Data access
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> Natural desarsters
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> Natural resources
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> Forests
>
> Crops
>
> Planning ecosystems
>
> Tourism and leisure

In the time frame allocated for this task, we will narrow the topics and arrange the presentation material to cover

(1) **Data access and management** – the advantages of the different DIAS, and how they compare in terms of price and quality to Google or Amazon services; automatic data access and downloading. *We will note the variety of other access points and ask the trainers to comment on the speed of use. The training will also consider available tools to make data more accessible and readable.*

(2) Data access for applications dealing with **natural desasters**

(3) Data for **natural resources** (including forests)

(4) Data access for **ecosystems management** (may include agricultural applications)
(5) **Tourism and leisure** applications

Preliminary planning for the 20-30 min webinars

Data Access
DIASes
Other points
Tools
(Nov. 2019)

→ Natural disasters
January 2020

→ Natural resources (forests)
March 2020

→ Planning: ecosystems
May 2020

→ Tourism & Leisure
June-July 2020

7   Content of the presentation material

For the presentation material we will use the available materials provided by the Copernicus EU, as well as additional materials from partner organisations and, wherever possible, from members of the Copernicus Academy, and will signpost the attendees to other training resources, such as RUS portal.

The webinars will be planned to include the following sections:

(1) Introduction to the topic
(2) Examples of applications
(3) Relevant data sources and access points
(4) In-depth training resources available
(5) Questions and answers

8 Conclusion

The webinars will be organised on the selected topics in the period between November and July 2020, in the framework of Task 3.4 of Work Package 3 (Awareness raising and provision of user-origiented information on Copernicus). Experts from the Consortium and associate partners will be trained to showcase the Copernicus relevant tools, data and information available. The tratining sessions will be open to all and will be performed as online webinars. The exact number of webinars will depend on the actual needs of the consortium members and associated partners.