Grant Agreement Number: 821911

Project acronym: **CoRdiNet**

Copernicus Relays for Digitalisation spanning a Network

D7.2 Publication of guidelines combined with policy recommendations

GRANT AGREEMENT N.	821911
PROJECT ACRONYM	CoRdiNet
PROJECT FULL NAME	Copernicus Relays for digitalisation spanning a Network
STARTING DATE (DUR.)	1 Oct. 2018
ENDING DATE	31 Dec. 2020
PROJECT WEBSITE	www.CoRdiNet.net
COORDINATOR	Jürgen Vogel
ADDRESS	bavAIRia e.V. Sonderflughafen Oberpfaffenhofen, Friedrichshafener Straße 1, D-82205 Gilching.
REPLY TO	vogel@bavAIRia.net
EU PROJECT OFFICER	Iulia Simion, EC-Research Executive Agency (REA), Brussels

Workpackage n.	title	WP7 - Strategic coordination of regional/cluster expertise to better promote Copernicus & support related business developments.
Work package leader	bavAIRia e.V.
Deliverable n.	title	D7.2 Publication of guidelines combined with policy recommendations
Responsible author	Jürgen Vogel
Reply to	vogel@bavAIRia.net
Version	status	V1.3
Nature	Report
Due date	31/10/2020
Delivery date	17/11/2020
Dissemination level	PU
Authors (partner)	CoRdiNet's Copernicus European Regional Strategy Panel (CERSP) and its two Working Groups, WG 1 & WG 2

VERSION	MODIFICATION(S)	DATE	AUTHOR(S)
V1.0	Start & integration of inputs from CERSP	15/07/2020	WG 1 & WG 2, J. Vogel
V1.1/V1.2	Final draft / 2nd Final draft	31/07/2020 / 31/10/2020	J. Vogel, bavAIRia e.V.
V1.3	Final version, incl. published joint booklet	17/11/2020	J. Vogel, bavAIRia e.V.

Summary

This is the final version of CoRdiNet's Report on deliverable D7.2 Publication of guidelines combined with policy recommendations based on the work of the "Copernicus European Regional Strategy Panel" (CERSP). The majority of the CERSP members (excluding the observers) are regional, sub-national representatives, who - for this purpose - formed two working groups in order to set-up compact policy recommendations and guidelines for Copernicus Relays adapted to local and regional needs and offers in digitalisation via Earth Observation (EO)/Copernicus data.

With the inputs from two CERSP working groups, one (WG 1) focused on policy recommendations, one (WG 2) on guidelines for Copernicus Relays, this deliverable prepares the publication of a booklet promised in the description of work of CoRdiNet as part of Work Package 7; it facilitates and pushes the use and exploitation of Earth Observation/Copernicus data and services targeted at regions in Europe. Thus, the target group for the booklet is local policy makers, Copernicus Relays, regions within the Copernicus Framework Partnership Agreement (FPCUP) and the Copernicus Support Office in order to have a broader dissemination effect on the target group.

During the third joint review meeting of the H2020 partner projects CopHub.AC (Copernicus Academy members) and CoRdiNet (Copernicus Relay members), it was decided to publish the mentioned booklet together, thus not only adding outputs and outcomes of the work and activities of CopHub.AC (like e.g. a description of the activities of a Copernicus Academy member, extracts from studies, lessons learnt or facts and arguments), but also supplementing views and lessons learned from the Copernicus Academy side. This extends and upgrades the target group of the booklet; in addition, the jointly published booklet reflects the interdependency of Copernicus Relays and Academy and the collaboration between the two networks. The booklet has been published during the Joint Final Event of the two H2020 partner projects on Thu., 5 Nov. 2020 and is attached as a pdf; it can also be downloaded from the two project websites of CopHub.AC and CoRdiNet.

List of acronyms

Acronym	Meaning
CAP	EU Common Agriculture Policy
CDTI	Centro para el Desarrollo Tecnológico Industrial
CRs	Copernicus Relays
CSC	Copernicus Space Component
CA	Copernicus Academy
Climate-KIC	Climate Knowledge & Innovation Community, see also EIT
CoR	Committee of Regions
CSO	Copernicus Support Office
CUF	Copernicus User forum
DIAS	Copernicus Data and Information Access Services.
EARSC	European Association of Remote Sensing Companies
ECMWF	European Centre for Medium-Range Weather Forecasts
EEA	European Environmental Agency
EEEs	Copernicus Entrusted Entities
EIT	European Institute of Innovation & Technology
EGNOS	European Geostationary Navigation Overlay Service
EMSA	European Maritime Safety Agency
EO	Earth Observation
ESA	European Space Agency
EU	European Union
FRONTEX	The European Border and Coast Guard Agency
FWC	Framework Contract
JRC	EU Joint Research Centre
LRA	Local Regional Authority
NEREUS	Network of European Regions using space technologies
PWC	PricewaterhouseCoopers
RUS	Copernicus Research and User Support
SME	Small and medium sized Enterprise
TBD	To be determined

Members (full/observer) of the Copernicus European Regional Strategy Panel (CERSP)

Company/Institution	First Name	Last Name	Status as member	Country
Nereus Association	Roya	Ayazi	full	BE
TeRN	Lucio	Bernardini	full	IT
IEST	Stefania	De Zorzi	full	IT
MCI	Tomas	Dimitrov	observer	BE
Bretel	Marie	Jagaille	full	FR
ESA-ESRIN	Simon	Jutz	observer	ESA
Univ. Salzburg	Stefan	Lang	full	AT
Government of the Azores	Francisco	Macedo	full	PT
Pôle Mer Bretagne Atlantique	Phil	Monbet	full	FR
EARSC	Christopher	Oligschlaeger	full	BE
SpaceTec Partners	Stéphane	Ourevitch	full	BE
Univ. of Leicester	John	Remedios	full	UK
In Extenso Innovation Croissance	Benoit	Rivollet	full	FR
DLR Space Management	Julia	Roehrig	full	DE
GMV Aerospace	Antonio	Tabasco	full	ES
DG GROW / DG DEFIS	Julien	Turpin	observer	EC
Bavarian Cluster Aerospace - bavAIRia	Juergen	Vogel	full	DE
Institute of Marine Research	Henning	Wehde	full	NO

Acknowledgement

Content

ANNEX

Copy joint booklet of CopHub.AC and CoRdiNet

1   Introduction

This document corresponds to deliverable D7.2, "Publication of guidelines combined with policy recommendations" of the Horizon 2020 Copernicus Relay project CoRdiNet, www.CoRdiNet.net, which started activities in October 2018 for about two years meanwhile extended until end of 2020.

The objective of this deliverable is framed within the general goal of the work of the Copernicus European Regional Strategy Panel (CERSP):

- *Increase use of* Earth Observation data and EO markets on regional level
- Support strategic exchange of gathered regional/sub-national expertise
- Promote the use of Earth Observation / Copernicus data
- Support business development and generation based on EO data
- Formulate guidelines for other Copernicus Relays and establish a basis for collaboration with the Copernicus Academy on regional/sub-national level.

The essential content of this document has been prepared by two working groups of the CERSP panel, the panel's member names and affiliations can be found in a table before the Content directory. Some ideas were extracted from the first deliverable in this series of documents, D7.1 Roadmap to digitalisation via Earth Observation data, published by the CERSP, during that time organised in six task groups, one for each chapter of the roadmap.

Working Group WG 1 focused on policy recommendations, while Working Group 2 put together guidelines for Copernicus Relays. Goal according to CoRdiNet's description of work in WP 7 was to use the inputs generated by these two groups as a starting point for a booklet targeted at regional policy makers in Europe in order to convince them of local investments to facilitate the user uptake of Copernicus data and services. For this purpose, both working groups gathered inputs from various resources:

From

- Own activities and expertise of the CERSP members

- Chapters 4 & 6 of deliverable D7.1, Roadmap to digitalisation via Earth Observation/Copernicus data, see https://cordinet.net

- Consultation/validation procedure supporting deliverable D7.1

- Quarterly coordination meetings, further exchanges and inputs from H2020 partner project CopHub.AC.

Since no physical meetings were possible during the times of spring and summer 2020, various virtual meetings were set-up in order to coordinate and streamline the above-mentioned resources:

- TelCo CERSP: Tue., 9 June 2020, 14:00 – 14:50 h, Joint preparation of the work of WG 1 & WG 2

- TelCo CERSP: Thu., 25 June 2020, 15:30 – 17:00 h, WG 1 and WG 2 operating in parallel discussing draft output papers

During the third joint review meeting with CopHub.AC, it has been discussed and agreed to add outputs and outcomes of the CopHub.AC partner project of the Copernicus Academy members to the descriptions of the role and tasks of Copernicus Relay members supplemented by targeted sets of policy recommendations.

This agreement has to be seen in the context of a first joint brochure organised, designed and financed by CopHub.AC right at the start of the two projects in 2018, a brochure, where both partner projects introduced themselves and gave an outlook to their future activities and forms of collaboration with each other and with external partners. Therefore, the booklet envisaged by CoRdiNet in the context of this deliverable D7.2 and offered to CopHub.AC to contribute, can be seen as a kind of "favour returned", but also as a logical development of the two partner projects together. The more, since CopHub.AC has a seat as one of the members of the CERSP panel of CoRdiNet, therefore its inputs and ideas were highly welcome and helpful in order to move forward in setting the basis and example for a fruitful collaboration of both, Copernicus Relays and Copernicus Academy members.

The two partner networks decided to finalise the booklet as a means for dissemination to accompany their Joint Final Event on 5 November 2020. The event had been registered and accepted as a physical event at the Committee of the Regions in Brussels in July 2020. The procedure to apply for such an event at this location took from January until July, since only members of the CoR are eligible and thus made it necessary to convince a set of regional CoR members, with a ready concept and draft agenda of the event. In Oct. 2020, the two networks – in view of the COVID-19 situation in Brussels - decided to cancel the physical event and replace it with a hybrid event organised by a suitable tech provider. The two partner projects finally decided to organise the event in a TV-studio-like atmosphere supported by an experienced tech provider with a track record in such type of events. Idea was to have a live presence of a few CoRdiNet and CopHub.AC representatives in a studio setup at the University of Salzburg, thus transforming the event in a hybrid virtual, but at the same time live studio event. Due to COVID-19 restrictions, none of the CoRdiNet partners nor speakers envisaged could take part in person at the event in Salzburg.

Further steps and meetings to coordinate the content and structure of the second joint booklet:

- TelCo CERSP: Thu., 16 July 2020, 15:00 – 16:30 h, CERSP plenary to unite and discuss both WGs' outputs, Cophub.AC presentation of possible inputs to booklet, presentation and discussion of a joint concept of a booklet of all-together 12 pages

- TelCo CopHub.AC & CoRdiNet: 22 Sept. 2020, 11:30 – 13:00 h: Finding agreement on concept and content of the booklet, the booklet now decided to have A4 format and 16 pages, starting to open shared online WordDoc with the outline and headings of the booklet and with the first contents and input requests sent to partners of CopHub.AC and CoRdiNet

- TelCo CERSP: Thu., 22 Sept. 2020, 15:00 – 16:30 h, CERSP plenary to conclude both outputs from the two WGs, presentation of ideas on joint booklet in form of a 1-pager in A4 landscape format, Cophub.AC presentation

- End of October/ until 5 Nov. Nov. 2020 in the morning: Final coordination work with designer and with Cophub.AC, last minute inputs, text completions, shortening of texts and typo corrections.

In order to settle the design and printing of the booklet, three companies, one in Bergen, one in Munich and one in Salzburg were invited to submit a bid. In the beginning, some copies of the booklet were thought to be printed for a limited audience of speakers

and participants present at the hybrid event location. At the end, considered as most important was a quickly publishable pdf version, meant to be downloadable from both project websites, but also easily distributed via email and as a fast information resource on the work of the two networks. Finally, the bid from the Salzburg had been awarded the contract to design the booklet in Oct. 2020, a booklet already mentioned in the description of WP 7 of CoRdiNet as a CoRdiNet only deliverable based on CoRdiNet inputs.

2 Resources of the joint booklet

WG 2 leader bavAIRia made a first proposal for the layout of the booklet to be printed in order to prepare for the CERSP Meeting on 16 July 2020, the last one before the summer break: It suggested eight printed pages of the size of a square of the length of the smaller side of an A4 page, three consecutive pages each were dedicated to CopHub.AC and to CoRdiNet, a double page was planned to be shared between the two projects.

End of July, after the CERSP meeting, a new suggestion from the side of CopHub.AC has been brought forward and discussed. Reasoning behind the new suggestion was to show the further developments and growing together of the two networks: This was now reflected in a new proposal no longer separating most of the pages related to CopHub.AC and CoRdiNet, but by having as many as possible joint double pages under joint headings. Along with this, also the number of pages had been suggested to increase from 8 to 12 pages. CoRdiNet welcomed the general idea of this new and extended concept, but it did not allow to host the policy recommendations and the guidelines for Copernicus Relays worked out by the two CERSP working Groups WG 1 and WG 2. Still, the new suggestion allowed to subsume a wide field of activities and offers, the two projects made during their project work to fellow Copernicus Academy and Copernicus Relay members. Therefore, CoRdiNet suggested yet another version on 8 Sept. 2020: It keeps most of the headings and structures of the 12-pager, building on top of it by adding the two pages necessary for CoRdiNet's policy recommendations and guidelines for Copernicus Relays. Because of symmetry reasons and since all printed and classically bound books have page numbers divisible by four; the latest suggestion of the structure of the joint booklet now contained 16 pages.

In the joint coordination meeting of CopHub.AC and CoRdiNet on 22 Sept.2020, 11 h, this last version of the proposal has been discussed and accepted by both parties and became the agreed format of the joint booklet listed and described in more details below. Later the day, this proposal accepted by CopHub.AC and CoRdiNet had also been presented to the CERSP members in their last meeting on Tue., 22 Sept. 15:00 h.

The first two sub-chapters ahead list the outputs of the two working groups WG 1 and WG 2 of CoRdiNet's CERSP.

Subsequent sub-chapters describe the consolidated and agreed structure of the booklet and its content. Some of the outputs and outcomes of the two CERSP working groups could not be put into the booklet because of design reasons and sometimes because of lack of space, therefore they are printed here also for completeness.

2.1 Policy recommendations

WG 1 decided to put its policy recommendations into different categories guided by the target groups it likes to address and reach. The most difficult part was to find the type of policy recommendations local and regional policy makers can act upon falling in their field of influence and reach. Also the size and content of the booklet limits the number of pages, the policy recommendations can extend to practically one A4 page, only. Therefore, it was hard work for the WG 1 to reduce the starting point of four pages in this sense. Still, another target group, the EU policy makers, were considered as an important part of the booklet and was thus kept. At the end, the target group of the working and managerial level of local regional authorities was decided to be important, too, they are to be convinced to invest time and efforts in the adoption of Copernicus services.

Here the result of WG 1:

2.1.1 Regional policy makers

- Building political will by promoting EO/Copernicus data in the context of all regional policies and smart specialisation strategies in order to provide solutions for specific regional challenges and needs
- Enhance international and interregional exchanges and cooperation to pool experiences, expertise, knowledge and resources in the field of EO/Copernicus data; Support regional clusters and Copernicus Relays/Academy to provide feedback, advice and training to regional and local authorities to increase the use of digitalised tools and Copernicus data
- Stimulate skills development/capacity building by integrating EO in training programmes of public bodies specifically targeting public management and staff/officials
- Enhancing a human resources recruitment policy that contributes to increase the number of smart "digital-ready" professionals that are capable to boost the transition to digitalisation via EO/Copernicus data adoption and integration in public offices and procedures
- Contribute to improve technical framework for up-take by stimulating data integration and access to open data by public authorities with the objective to stimulate them to experiment with new data sources and different integration approaches
- Seek the dialogue with EU institutions, service providers and organisations relevant for EO and Copernicus data and services and stimulate your regional/local administrations and users to permanently express their needs and feedback
- Stimulate the use of Pre-commercial Procurement (PCP) or Public Procurement of Innovative Solutions (PPI) calls by regional and local authorities to boost EO/Copernicus data use
- Support the use of EO in several sectors and the transformation of data into information/analytics, to foster the use of Copernicus by non-expert users
- Foster studies analysing benefits and improvements of EO-based solutions compared to commonly used procedures/products.

2.1.2 EU Policy makers

- Facilitating/Harmonizing framework conditions set by EU & national space policies with regional policies to support digitalisation and the use of Copernicus data to allow leveraging with national and EU service offers and funding
- Stimulate industry and training system to include Copernicus data and services in particularly for non-expert companies and users

- Incentivise skills development/capacity building by integrating EO in education and training programmes for young people, businesses and public authorities management and staff
- Improve local/regional access to EO/Copernicus data and knowledge, generating knowledge and data transmission services of high connectivity across the EU and interoperable with national and regional existing systems (compliant with INSPIRE)
- Improve technical infrastructures to achieve better connectivity from central (European, national) to local platforms
- Foster instruments and exchange mechanism addressing new users/sectors and promoting of EO outside the EO-community
- Establish and create jobs having the competence and capacity to elaborate the full potential of EO-data for the EU and its member states
- Foster bottom-up instruments such as FPCUP (Framework Partnership Agreement on Copernicus User Uptake).

2.1.3 Regional and local authorities (LRAs) Management & Staff

Support regional/local authorities and their management/staff in the adoption and use of new technologies and digitalisation via EO and Copernicus data & services is a complicated and resource consuming process. To facilitate the user uptake by the public sector, we recommend the following activities:

- Analysis of user profiles: Find out about potential needs via interviews, studies and personal talks
- Matchmaking: Supporting information and events for creating opportunities to facilitate the meeting between supply and demand
- Skills development/capacity building: Support trainings of public authorities management and staff to formulate their needs and in the use of EO/Copernicus data in close cooperation with service providers and Copernicus Academy members with concrete best practices and practical examples
- Dedicate Pre-commercial Procurement (PCP)/Public Procurement of Innovative Solutions (PPI) calls to local regional authorities to boost EO/Copernicus data use
- Establish exchange and promoting networks on the national, regional and local scale learning from best practices of other EU member states and regions
- Sustainable and smart investments in capacity building and development should be made to increase the competences to exploit EO-potentials because it takes time to establish structures, develop capacities and change habits
- Integrate EO in education programmes of public bodies specifically targeting public management and staff/officials
- Create jobs with skills to use EO-data/service and recruit smart "digital-ready" professionals to facilitate the transition to digitalization via EO/Copernicus data adoption and integration in public offices and procedures.

2.2 Guidelines for Copernicus Relays

WG 2 agreed to reduce the guidelines for Copernicus Relays to one A4 page. It lists requirements, expectations on offers as well as good practice and especially the relationship to fellow regional Copernicus Academy members in the neighbourhood of a Copernicus Relay.

Here the output of the WG 2 as of July 2020:

2.2.0 Pre-requisite

Acquire and regularly renew your label to keep the status of a Copernicus Relay bestowed by the European Commission identifying yourself as an ambassador and local contact office of one of the most important programmes of the European Union in support of digitalisation. The programme links Relays to the expectation of supporting to capitalise on the investments into the European space programme Copernicus.

2.2.1 Vision

- Become or be part of local Copernicus Information & Application Hub acting as a catalyser between the different actors
- Contribute to, make available and promote an inventory and map local expertise and demand related to EO - best accessible online, in the easy terms of local application users and in local language
- Support EO data to become part of a holistic process combining various data sources, be it from space (e.g., GNSS data) or from other sources.

2.2.2 What are the skills a Copernicus Relay needs?

- Organisational expertise
- Understanding of Copernicus infrastructure & basic technical skills on data access and processing
- Ability to follow developments on digital markets & its fast-changing environment (EO is part of Big Data)
- Embedding in relevant local business networks, public administrative structures, educational & academic as well as civil society sectors
- Knowledge and experience with funding opportunities be it local, regional, national or European)
- Finding its niche and recognition in the local regional policy and strategy for digitalisation
- Ability to reach out to the local regional ecosystem via existing networks & appropriate dissemination tools & channels
- Ability to represent the EU Copernicus Program and its opportunities within your local/regional ecosystem and its stakeholder and to be(come) recognised as such.

2.2.3 Activities to offer

- Awareness raising and promotion
- Acting as a local link for EC opportunities
- Training activities
- Guide local stakeholders on e.g., data, opportunity, funding, contacts
- Support to user uptake, depending on the target group:
  - Regional/sub-national authorities, including bigger metropolitan areas, it is
    - Political engagement,
    - Technical engagement
  - SMEs, it is
    - Support to development, including business incubation and acceleration.

o Copernicus Academy members, it is

    - R&D support, knowledge transfer promotion, training modules as well as mediation of contacts.

2.2.4 Create synergies between Copernicus Relays & Copernicus Academy members

- Promote the adhesion of new and already existing Copernicus Relays & Copernicus Academy members in the region to cover different areas of interest and roles, best under a local strategy and/or action plan
- Copernicus Relay & Copernicus Academy members should team-up, best along concrete locally relevant application cases and solutions
    - Copernicus Relays provide access and door opening for Copernicus Academy members to regional public authorities and small and medium-sized companies dealing with Earth Observation services & applications
    - Copernicus Academy members' provide inventory of academic and research knowledge relevant to Earth Observation/Copernicus applications and promote that to Copernicus Relays and their network of SMEs & public authorities, best in a searchable online directory/cloud.

2.3 Inputs from CopHub.AC: Description of Copernicus Academy and related recommendations, lessons learnt, advice and outputs

The argumentation of CopHub.AC is that the roles and expectations from Copernicus Academy members as described on the Copernicus.eu website leave some room for interpretations. Therefore, it might be helpful to offer a more precise description of both, roles and expectations. The same holds according to CoRdiNet's opinion for Copernicus Relays and their description offered on www.Copernicus.eu along with the application form for becoming a Copernicus Relay or an Academy member.

It should be emphasised that the texts and inputs provided for the booklet from the side of both Horizon 2020 partner projects reflect the views from the side of CopHub.AC and CoRdiNet and do not reflect the official views of the European Commission or the Copernicus Support Office on Copernicus Relays or Academy members. For the official view, please consult www.copernicus.eu.

3 Agreed structure and form of joint booklet

These were the joint steps taken:

- Find agreement on the form and design of the second joint booklet

- Find agreement on the topics and subjects covered

- Choose suitable texts from both partner networks reflecting essential outputs, outcomes and advice as a kind of legacy of the two networks

- Use graphics to illustrate the booklet, but not too much: A graphics designer well known for cartoons from the Czech Republic has been asked to draw some "test" cartoon characters for the "Spirit of Copernicus". There could be no agreement found to include the cartoons in the booklet.

3.1 Structure for the joint booklet

Agreement has been found on a proposal of CopHub.AC extended by CoRdiNet to a booklet of 16 pages, and a suggested format of A4 landscape, being built on top of a 12-pager

1	3	5	7	9	11	13 (new)	15 (new)	
	2	4	6	8	10	12 (new)	14 (new)	16 (old 12)

Fig. 1: Layout of pages of booklet for the 16-pager

This is how the headings and contents of the sixteen pages were suggested and designed, see Fig. 1 above:

[**page 1**] CopHub.AC & CoRdiNet **COVER** (merger of existing brochure title pages): EU flag, logos of both networks, names of both networks (Acronyms and full names):
Title: **Copernicus rocks!**
Copernicus (uptake and innovation, actors, …) networks (limited to a few sentences, only!)
General: *what is the key strategy behind the two networks according to the Space Strategy and in the Copernicus (sub-)ecosystem of User Uptake in particular?*

[**p2**] (CopHub.AC)	[**p3**] (CoRdiNet)
Specific: What is the Copernicus Academy network?	Specific: What is the Copernicus Relays network?

Innovation elements

General: W*hat are the specific innovation elements designed by the two networks to promote the benefits of active participation to members?*

[**p4**] (CopHub.AC)	[**p5**] (CoRdiNet)
• Knowledge landscape • Innovation monitor • Citizen App	• Financial support innovative actions • Reports on facilitating user uptake • Policy Recommendations, Roadmap to digitalisation via EO

Networking activities (animating the networks)

General: W*hat are the key actions driven by the projects to animate the networks and foster active contribution and participation of members?* Contributions of CSO: General assembly, monthly telcon, etc.

[**p6**] (CopHub.AC)	[**p7**] (CoRDiNet)
• Gateway • Self-assessments, active reporting • Active participation in TWGs • Awards • Trainings	• Set-up and joint work of CERSP • Calls for Expressions of Interest: Support and backup by expert network • Webinars • Participation in pilot actions

Long-term sustainability

General: *what is the strategy to foster and sustain the networks in the long-term?*

Recommendations and experiences on collaboration of Copernicus Academy members / Copernicus Relays

[**p8**] (CopHub.AC)	[**p9**] (CoRdiNet)
Road map: Physical and virtual hubs • Excellence centres • Joint Academy and Relays hubs • Educational hubs Virtual hubs • integration of technical developments • sustainability of virtual participation, elements	• CERSP roadmap • Guidelines for Copernicus Relays • Policy Recommendation directed at regional level • Competencies acquired by Nereus network

Policy recommendations	
General intro	
[**p10**] (CopHub.AC) • Policy recommendations from the side of Copernicus Academy	[**p11**] (CoRDiNet) • Policy recommendations for policy makers at regions and EU level See e.g. text from D7.2, Chapt.2.1
Membership requirements and guidelines for Copernicus Relays and Academy members	
General intro text	
[**p12**] (CopHub.AC) • Membership requirements and exectations for Academy members	[**p13**] (CoRDiNet) • Guidelines for Copernicus Relays (this includes collaboration CA/CR)? See e.g. text from D7.2, Chapt.2.2 …
Fact box, project details, partners, key (public) deliverables	
General: two partnering projects with specific network-oriented, but also joint activities	
[**p14**] (CopHub.AC:) • Facts & figures • Public deliverables	[**p15**] (CoRdiNet:) • Facts & figures • Public deliverables
[**p16**] **Why you should read this?** Nice graphics, acknowledgements, maybe QR codes, month/year of publication	
CopHub.AC (Contact details, web references etc) / CoRdiNet (Contact details, web references etc.)	

Fig. 2: Joint booklet structure, 16-pager, A4 landscape

The content presented in the first two chapters of D7.2 was a good basis for texts and messages of the 16-page booklet to be extracted for the CoRdiNet part. Also content from other CoRdiNet deliverables like e.g. from D 2.3 on user uptake, or lessons learned from contributions from CoRdiNet's associate partners or from CoRdiNet's deliverable D7.1 served as a resource to fill the joint booklet with hard facts, elaborated knowledge and key messages worked out over the project runtime. CoRdiNet and

CopHub.AC beneficiaries were assigned to finish certain parts of the booklet and its different paragraphs in order to reflect the diversity of and the collaboration between the two networks. The two partner projects shared a joint word document online to edit the text together.

According to the original CoRdiNet grant agreement, Deliverable D7.2 was due end of July 2020. CoRdiNet suggested this deliverable to be updated end of October 2020, shortly before the planned joint event of CopHub.AC and CoRdiNet on 5 Nov.2020, since the joint booklet has been planned to be distributed and was shown for the first time right at this event. The first Amendment of the CoRdiNet grant agreement extended the runtime of the CoRdiNet project until end of 2020 and shifted the deadline for this deliverable to end of October 2020.

To complete, the final version of the 16-paged joint booklet is enclosed here in the Annex. The overall design of the booklet has been kept very close to the design of the first jointly published brochure of CopHub.AC and CoRdiNet. In a way, the booklet is some of the legacy of the joint collaboration of the two partner projects, hopefully to the benefits of both networks, the Copernicus Relays as well as the Copernicus Academy Hub.

ANNEX

Copy of the Joint Booklet of CopHub.AC and CoRdiNet, sixteen pages A4 landscape, published for the first time at the Joint Final Event of the two H2020 partner project CopHub.AC and CoRdiNet on Thu., 5 Nov. 2020, see also both project websites, www.cordinet.net and www.cophub-ac.eu.

Copernicus rocks!

Academy Hub and Relays

Copernicus
Europe's eyes on Earth

Networks boosting the user uptake within the Copernicus ecosystem

The network of the Copernicus Academy and the Copernicus Relays foster the Copernicus idea by promoting access to and exploitation of space data, enabling their cross-fertilisation with other sources of data and facilitating the integration with emerging digital infrastructures. Today, Copernicus is the leading provider of Earth observation data for civil use. As one of the main satellite data providers, it generates daily TBytes of data all free and downloadable from servers worldwide. Together with its unique portfolio of information services, Copernicus has the potential to unlock the digitalisation of our business, administrative as well as private world to an extent not possible or known before. Hence, there is also great responsibility involved.

According to the "Space Strategy for Europe" (EC, 2016) *„the uptake of space solutions through standardisation measures and roadmaps, and by integrating space into future strategies [...] should be supported by accompanying measures at national and regional level [as well as] awareness-raising campaigns [and] support networks"*

Copernicus Academy

The Copernicus Academy network connects universities, research institutions, business schools, private and non-profit organizations with the aim to facilitate cooperation in research, education and training. It links research and academia with public authorities, service providers and citizens to boost the use of Copernicus data, information services and capacity building activities. With currently more than 160 members, this network has been growing into a rare pool of experts from different domains and nations, in- and outside of Europe, with the ambition to have impact on global scale.

Copernicus Relays

Copernicus Relays are the local ambassadors and contact offices to promote and coordinate activities around the use of Earth observation data and services, especially in relation with the European Copernicus Programme. Currently, about 100 Relays worldwide form an open network of supporting institutions, including companies, to foster digitalisation and new business opportunities linked to space data and its target group of intermediate and end users, many of them part of regional or subnational, smaller communities and ecosystems.

What is...?

...the Copernicus Academy network

The Copernicus Academy embraces members willing to become pioneers, benchmarkers and ambassadors of the knowledge potential behind Copernicus data and information. Each member acts as a multiplier, initiating the development of interdisciplinary and international masters and educational classes, new skills boosting programmes for vocational training, industry-university traineeship agreements, facilitating spin-off creations, good practice examples as well as reference tools and materials. The European Commission (EC) encourages, via the Copernicus Support Office (CSO), cooperation and interaction and the exploitation of the distributed knowledge and complementary expertise. Network-wide activities facilitate the uptake of space data and information products through the development of professional skills, with a focus on merging knowledge from different sectors. Considering that there are numerous applications outside the usual space-related domains, it is crucial to create awareness within universities and business schools to attract both young and experienced people to the opportunities for their professional profile specialization.

...the Copernicus Relays network

Copernicus Relays are often linked to some area, be it national, subnational, regional or even to larger municipalities. Many of them are public institutions with a mandate from a national entity responsible for the implementation of Copernicus in Europe. In recent years, more and more companies, but also clusters and start-up networks joined the network in order to introduce business ideas and entrepreneurial spirit into the work of extracting concrete information for decision making from Earth observation data. Important for the work of the Relays is a network of users and providers, the better you know them, the more effective is the support and the persuasive arguments you can provide to them, which in a way favours institutions with a coordinating role in smaller regions or institutions with a specific application area, for example, environment or agriculture. Part of the task is to mediate between small and medium-sized companies (SMEs) on the one side and public authorities as the current main users of Earth observation data in Europe on the other side. Copernicus as one of the Big Data sources worldwide is the tool to boost digitalisation in your area of responsibility or your sector of expertise independent of you being more active on the political level, as a company or as an intermediary.

This reflects the views of the two Horizon 2020 projects, CopHub.AC and CoRdiNet. For the official views of the European Commission and the Copernicus Support Office, please look on www.copernicus.eu

Innovation elements

What are the specific innovation elements designed by the two projects to faciliate interaction and promote the uptake by the community?

Copernicus Academy

Knowledge Landscape
To facilitate an easy retrieval of the members´ capacities and expertise for potential regional and international cooperation partners, a dynamic visualization approach is implemented, built on data collected in the members´ section and stored in a common database. To visualise regional hot spots (hubs, clusters) of competences and the geographic pattern of distributed know-how within the Copernicus Academy network, heat maps based on self-assessment data are produced. A dynamic visualization serves for communication and for exploration - by selecting, grouping and regrouping as well as filtering of parameters in form of a problem-solving loop. This enables a user-specific search of expertise by location, application area, methodological background and types of activity.

Innovation Monitor
The Innovation Monitor uses a set of indicators to represent the dynamic innovation potential of the Copernicus Academy members. For a comparable assessment of the innovation process from academia to business, a composite indicator resulting in one innovation index based on the framework of the European Innovation Scoreboard, the Regional Innovation Scoreboard and the EARSC "EO maturity indicators" is designed. The underlying data are updated by self-reports

from members and complemented by information retrieved from the semantic web. The indicators are grouped in four dimensions, each representing a different aspect of innovation, namely linkages & partnerships, excellence of research system, education and Copernicus related activities.

Citizen App
The Citizen App provides information about the Copernicus Academy and the Copernicus services to the interested public as well as actively engages citizens. Copernicus information is combined with a GeoCitizen approach to actively support the Copernicus Academy show-casting Copernicus services and information layers to the broad public through the provision of interactive possibilities to communicate with experts. Users can post questions about local information by indicating their position directly on the map. Regional or thematically affine Copernicus Academy members may answer such inquiries. The technical background is a state-of-the-art progressive web app, which combines features offered by most modern browsers with the benefits of a mobile experience. One advantage of this approach is that only the website is coded which can be transformed to a, for the user normal, mobile app, for Android and iOS with no need to design web services for different platforms.

Copernicus Relays

Financial support to innovative actions
Already during its proposal phase, the CoRdiNet consortium decided to take the needs of Copernicus Relays gathered by the acting Copernicus Support Office seriously: Very often Copernicus Relays expressed the wish for financial and conceptual support of small and ad-hoc projects in their region. This is why CoRdiNet set aside a "small project" fund of about 100.000 € in order to serve this demand in an uncomplicated way, be it e.g. for the organisation of physical or online events, translation of reports or the support of surveys and small studies. Short online application forms together with the set-up of an independent voluntary evaluation board of almost two dozen experts made this innovation action a success story: Fourteen small projects were financially supported, most of them with up to 5.000 €, some - with recommendations from the evaluators - were topped-up by a few 1.000 €. Examples of funded projects of the Associate Partners of CoRdiNet can be found on the project website.

Reports on facilitating user uptake
The analysis of the feedback from the stakeholders addressed by the CoRdiNet partners (including the Associate Partners) revealed the main barriers that have so far prevented a systematic use of Copernicus-based solutions within routinely working activities at regional-local scale. Several recommendations have been

formulated trying to cope with such barriers. In more detail, it has been suggested: i) to facilitate stakeholders in accessing to the available funding opportunities to support their investments on training and ICT infrastructure investment/upgrade, ii) to continuously update and deliver the latest successful Copernicus solutions and use cases to be shared and promoted at local level, iii) to develop ad hoc learning modules on EO Copernicus data/services for young students to stimulate the use of these data from the early stages, iv) to generate and divulge adequate and updated Copernicus "data access kits".

Policy recommendations and roadmap to digitalisation via Earth observation
Copernicus data are free to use, they support the task of public authorities in Europe, where is the problem in user uptake? Here, it is the experiences made in the regions, when dealing with local and regional authorities on the one hand as well as mediating between companies offering business solutions based on earth observation data on the other hand. The pool of experts gathered in the CERPS, see below, took care of both issues: they set-up a roadmap to digitalisation via Earth observation data as well as targeted policy recommendations to policy makers at the European level as well as to local regional politicians. The policy recommendations are summed up below, the Roadmap is published on the project website.

Networking activities (animating the networks)

What are the key actions driven by the projects to animate the networks and foster active contribution and participation of members?

Copernicus Academy

Network-wide activities

Currently, the Copernicus Academy network is mainly animated by the annual General Assembly, as well as a monthly teleconferences, organised by the Copernicus Support Office, where members actively contribute and interact. Beyond this, and more specifically, major main benefits of the network include:

- Visibility and promotion of the own organisation
- Knowing more about other members' expertise
- Receiving information on network activities and funding opportunities
- Getting to know about educational activities and skills development
- Strengthening the space/geospatial (EO*GI) sector in general

In order to unleash the hidden potential within the network, a gateway is used, which asks members for a self-assessment of expert levels in methodological and thematic expertise. This self-assessment is updated together with a brief report on each member's activity in the annual membership renewal procedure.

Thematic Working Groups

Thematic Working Groups (TWG) are catalysts for fields of expertise contributing to the shared vision of the Copernicus Academy network through focused exchange and cooperation on specific thematic topics relevant to the Copernicus programme and the society. The TWG topics are predefined by the Copernicus thematic core areas: Atmosphere, Marine, Land, Climate Change, Security and Emergency, but not confined by them. Each TWG should help shape their thematic fields and observe advances within those. They may also support the Entrusted Entities with scientific advice and act as general point-of-contact to the Copernicus community.

The Partnership Award

The Partnership Award is a competition recognising and rewarding outstanding collaboration in public-private partnerships for the Copernicus user uptake. Specifically, Academia and Companies (in partnership) are encouraged to submit a proposal for cooperation or present an already established collaboration achievement from Research to Market. The award provides a mechanism to appreciate excellence, value creation and sustainability but also showcase exemplary communication of results and engagement. It is embedded under the EARSC Awards schema.

Copernicus Academy label

Copernicus Academy label for training. The wide proliferation of courses and training measures referring to the Copernicus Programme requires categorisation and quality assurance. The need for the introduction of standard requirements via a quality label for Copernicus Academy training elements and teaching material is one of the requirements promoted by CopHub.AC in cooperation with the Erasmus+ Skills Alliance in the EO*GI sector.

Copernicus Relays

Set-up and joint work of the Copernicus European Regional Strategy Panel

Derived from the good experiences made with the "GMES Arbeitskreis (AK)" (later Copernicus AK) initiated back in 2006 by bavAIRia e.V. at the Bavarian Ministry of Economic Affairs, a "Copernicus European Regional Strategy Panel" (CERSP) has been called upon by a Call for Expressions of Interest. Currently, eighteen European experts on the use and support of business and policies linked to space data bundle some European regional and (sub-)national expertise in this subject. Divided-up in tasks groups they have been working on roadmap documents, on the regional support of digitalisation via Earth Observation data, on policy recommendations to regional/subnational policy makers and on guidelines for Copernicus Relays. The CERSP enjoyed the hospitality of the Representation of Hesse in Brussels via its member NEREUS as well as of the Region of Veneto in Venice; the kind invitation by the Government of the Azores could not be followed due to the restrictions posed by COVID-19. Details on the work of CERSP, the outcomes and results can be found on CoRdiNet's project website.The Roadmap to digitalisation and the policy recommendations are described here in more detail.

Calls for Expressions of Interest: Support and backup by expert network

The CoRdiNet beneficiary NEREUS not only published the Calls for Expressions of Interest advertising CoRdiNet's small project fund for Copernicus-related innovative activities, but also administered and supervised CoRdiNet's "Associate Partners": NEREUS provided its wide network of experts to support space-related activities and not only links to about twenty four European partner regions, but also to European institutions like the European Commission, the European Parliament, the European Committee of the Regions or the European Space Agency (ESA).

Webinars on Earth observation and Copernicus

Based on their teaching experience CoRdiNet beneficiary University of Leicester offered demand-driven webinars targeted at training-the-trainers. In various surveys Copernicus Relays were asked for their needs relating to sectors as well as to concrete applications. All-in-all two online webinars were organised: The first webinar offered in January 2020 focused on the Access to Earth observation and Copernicus data. The second webinar in November 2020 settled on the subject of Disaster and Crisis Management. Both webinars can be downloaded from the project website.

Participation in pilot actions steering public administrations and industries

The best way to find innovative applications for Earth observation and Copernicus data is to test them in pilot actions of new partnerships. In the context of Copernicus this means partnering of public authorities with industry, many of them small and medium-sized enterprises: European regulations related to environmental protection (i.e. air, water and soil) open opportunities in the context of reporting and monitoring obligations at regional, national or European level, public authorities are to deliver, often on an annual basis. Concrete pilot actions help to institutionalise such partnerships and make both sides profit from each other's expertise.

Membership and guidelines
Benefits, opportunities and tasks of network members

Create synergies between members of the Copernicus Academy and Relays
- Promote the adhesion of new and already existing Copernicus Relays & Copernicus Academy members in regions to cover different areas of interest and roles, preferably under a local strategy and/or action plan
- Copernicus Relays & Copernicus Academy members should team-up and focus on concrete locally relevant application cases and solutions
- Copernicus Relays provide access and door opening for Copernicus Academy members to regional public authorities and SMEs dealing with Earth Observation services and applications
- Copernicus Academy provides inventory of academic and research knowledge relevant to Earth Observation/Copernicus applications and promotes this to Copernicus Relays and their network of SMEs and public authorities in a searchable online directory cloud solution

Copernicus Academy

Vision
The Copernicus Academy is striving to increase the exchange of ideas and best practices across borders and disciplines, while contributing to the development of the use of EO data in general and Copernicus data and services in particular, in various public or private user organisations or industries. In doing so, the Academy fosters collaboration between all actors along the innovation pipeline to reach the market, benefit the citizens of Europe and the future of our Planet.
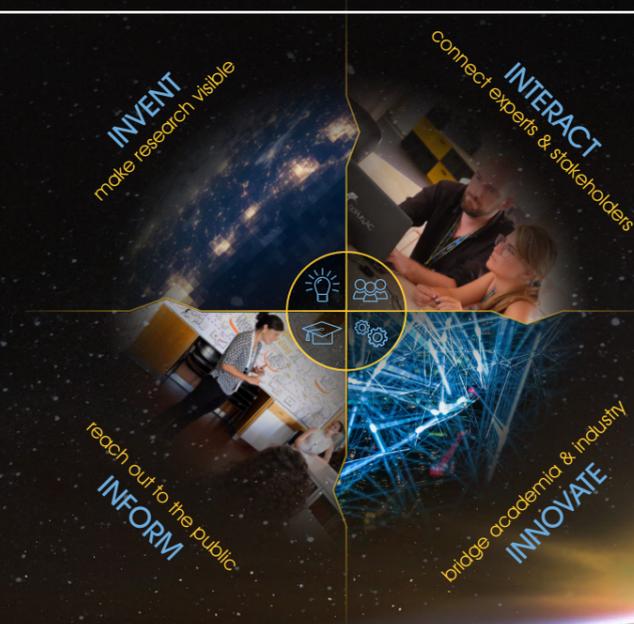
Membership requirements
The prime aspect to become a member of the Copernicus Academy is a keen interest and active contribution in research & development & innovation, relevant to the EO*GI sector. But this does not restrict membership to academia or research institutions. Just like in a real ecosystem, there should be functional ties and interactions between different types of members. This means, organisations from other sectors (industry, private organisations, public institutions, etc.) are also invited to join the Academy network, to perform R&D&I activities, or have a strong role as early adopters or promoters of new technologies. Knowing and valuing what others know and being able to gain access and commonly utilize this knowledge is the underlying principle of the following main constituents of the Copernicus Academy:

INVENT – visualizing research outcome and distributed capacities and thus facilitating accessibility of this information

INNOVATE – bridging the gap between academia and industry as key to innovation, fostering EO solutions to real-world problems

INTERACT – stimulating the sharing of expertise and tools between involved stakeholders such as academic institutions, public authorities, and the private sector

INFORM – reaching out to the public at large and students to increase awareness about Copernicus

INVENT
make research visible

INTERACT
connect experts & stakeholders

INFORM
reach out to the public

INNOVATE
bridge academia & industry

Copernicus Relays

Vision
Become or be part of a local Copernicus Information & Application Hub acting as a catalyser between the different actors. Contribute to, make available and promote an inventory, a map of local expertise and demand related to Earth observation (EO) data - best accessible online, in easy terms of local application users and in local language. Support EO data to become part of a holistic process combining data sources, related to space, e.g., navigational data, or from other sources.

Activities to be offered by a Copernicus Relay
- Awareness raising, promotion as well as training activities
- Guide local stakeholders on data, opportunities, funding & contacts
- Support target group specific user uptake:
  - Regional/sub-national authorities, including bigger metropolitan areas - engage(!)
  - SMEs - support their development
  - Copernicus Academy members - R&D, knowledge transfer promotion, training, contacts to businesses & authorities

What are the skills a Copernicus Relay needs?
- Organisational expertise and ability to represent the EU Copernicus Program and its opportunities within its ecosystem
- Understanding of the Copernicus infrastructure and its basic technical capabilities
- Ability to follow developments on digital markets and their fast-changing environment
- Embedding in local business networks, public authority structures, educational, academic and civil society sectors
- Knowledge and expertise with all levels and target groups of funding opportunities
- Finding recognition in activities related to local policies and strategies for digitalisation.

Policy Recommendations
How to shape the future of the networks

Copernicus Academy

The term 'Copernicus ecosystem' demonstrates the growing complexity and interconnectivity emanating from the innovative European Information Service Programme. The paradigm shift through free, open and accessible provision of harmonized data unleashes cascades of inventions ready for uptake by industry to supply innovative solutions for societal challenges.

Main role of the Copernicus knowledge and innovation hubs
The main role of the Copernicus knowledge and innovation hubs, according to our definition, is to:
- facilitate this process from invention to innovation, encourage cooperation of all involved stakeholders and
- perform targeted capacity building and training measures.

Ensuring a common understanding
For any sector providing services, reaching a community consensus on terminology is a prerequisite for ensuring a common understanding of the information exchanged among different stakeholders.
- Knowledge exchange among users of EO*GI services presents many challenges and the development of a "knowledge-driven" approach is one of the milestones for embracing its diverse group of stakeholders.
- This update of a user-oriented taxonomy focuses on the translation between the world of the providers of EO services and the world(s) of their users.
- It provides a structured view of the uptake for EO services; it brings together the products and services which are offered by suppliers

- More coordination is expected to exchange the knowledge and open doors to illustrate how EO is/can be used in different thematic fields, market and sectors and increase the awareness on the value and the use of solutions.
- The EU should provide mechanism to enhance communication between all actors and align their activities which can foster the EO uptake and create more collaboration opportunities for each actor of the ecosystem.
- Collaboration between the Academy and the Relays is more than simply cooperating as it involves a shared vision and in-depth understanding of the community roles with the goal of achieving the excellence in promoting the user uptake.

Pipeline to innovation
As a holistic way of communicating and disseminating research, the CopHub.AC innovation pipeline was developed. The process reflects a series of realistic interactions between the research community and potential service providers (SMEs, start-ups, entrepreneurs, etc.). Its main objective is to nurture a culture of communications between these two interacting groups of stakeholders, those who produce research output with those generating services from it.

Copernicus Relays

Here are some of the policy recommendations to regional and European policy makers put forward by the *"Copernicus European Regional Strategy Panel"* of CoRdiNet:

To regional policy makers capable to foster the use of EO/Copernicus data and services
- Build political will in regional policies & smart specialisation strategies seeking EO-based solutions for its local challenges and needs
- Enhance international and interregional exchange and cooperation to pool expertise, knowledge and resources; support clusters and Copernicus Relays/Academy to provide feedback, advice and training to local and public authorities, thus stimulating skills development and capacity building
- Enhance human resources contributing to increase the number of smart "digital-ready" professionals boosting digitalisation in public offices and procedures
- Contribute to improve the uptake framework by stimulating data integration and access to open data by public authorities to stimulate experimenting with new data sources and different integration approaches
- Seek the dialogue with EU institutions, service providers and organisations and stimulate local administrations and users to express their needs and feedback
- Stimulate the use of pre-commercial procurement (PCP) and public procurement of innovative solutions (PPI) calls by local authorities
- Support the use of EO data in several sectors and the transformation of data into information and analytics fostering the use by non-experts
- Push studies analysing benefits and improvements via EO-based solutions.

To EU policy makers capable to foster the use of EO/Copernicus data and services
- Harmonise framework conditions set by EU & national space policies with local ones, thus allowing to leverage opportunities
- Stimulate industry and training for non-expert companies and users
- Incentivise skills development and capacity building in education & training programmes for young people, businesses and public authorities
- Improve local data access to generate knowledge and data transmission services of high connectivity across the EU and interoperable with nationally and locally existing systems (i.e. compliant with INSPIRE)
- Improve technical infrastructures to achieve better connectivity from central, e.g., European or national, platforms to local ones
- Foster instruments and exchange mechanisms addressing new users and sectors to promote EO outside its community
- Establish and create jobs capable to exhaust the full potential of EO-data
- Foster bottom-up instruments such as the European Framework Partnership Agreement on Copernicus user uptake (FPCUP).

Long-term sustainability

What is the strategy to foster and sustain the networks in the long-term?
Recommendations for effective collaboration of Copernicus Academy and Copernicus Relays

Successful user uptake includes a close and coordinated collaboration between the Copernicus Academy and the Copernicus Relay networks, both, on the regional/subnational level, but also on the level of the coordination of two networks, especially by the Copernicus Support Office.

Copernicus Academy gains its power by cooperation and exchange among the members. The strength of the Academy as a whole is expressed by the singular form: we have one Academy with its various members. Diversity of the members in methodological expertise and thematic competence makes the Academy a unique constellation worldwide. The aspiration of actors from all around the world enforces this endeavor. A certain level of experience and the willingness to share are central to the institutions taking up this challenge.
**Copernicus Relays** can serve as mediators between academia on the one side, and the industry market formed by users and providers of Copernicus services on the other side. They can help to address policy makers, encouraging them to overcome market barriers or market failures and offering support measures such as collections of good practises, pilot activities or awareness raising. Many Copernicus Relays organise information events targeted to the business community or to policy makers. Activities of Copernicus Relays support capitalization of investments made into the Copernicus programme.

Copernicus Academy

Regional and virtual hubs promoting Earth observation exellence

The idea of 'space hubs' within the Copernicus Academy is realized in 'real' geographically clustered hubs or virtual ones. Physically implemented regional hubs focus on the interaction with local and regional stakeholders and the organization of region-specific implemented outreach and education events. Being equipped with a rich technological and organisational infrastructure, such hubs showcase, impart and uptake the Copernicus mission either in a specific thematic field or following a trans-domain orientation reaching out and bringing together actors on various levels. Regional hubs, according to their specific focus and core activities can act as educational hubs, centres of excellence, or joint Academy & Relays centres.

Since political boundaries are less significant in the academic realm, regional hubs could also mean transboundary hubs. A few promising examples give hope that cross-border expertise in European regions can stimulate the growth of such centres beyond country borders. Taking advantage of the increasing importance of digitalisation and networking in virtual space, so-called virtual hubs concentrate on the development of technical elements to visualise and facilitate easy harvesting of the members' expertise, both within the network and for potential external cooperation partners, open the Academy to the general public and facilitate virtual information and training events. Such hubs are considered clusters in a knowledge space that represent the Copernicus Academy as a living network in response to societal change.
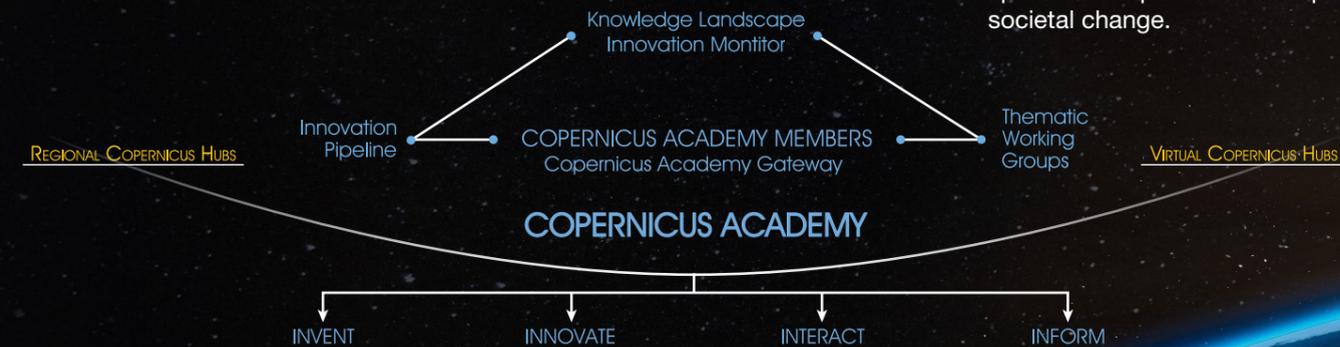
Copernicus Relays

Roadmap to digitalisation via Earth observation data

CoRdiNet's European Regional Strategy Panel split into six task groups to work out a roadmap for digitalisation via Earth observation data. While some of the institutional members were observers from the more programmatic side of Copernicus, regional representatives brought in their expertise from activities like information events, training courses but also interactions with local and regional authorities and small & medium-sized enterprises and service providers. For a full list of members, please look on the CoRdiNet project website and the links below.

Policy Recommendations

Policy recommendations are very much depending on the target group you like to reach out to. The CERPS task group focused on (i) regional policy makers and (ii) European level policy makers. When discussing regional barriers, it was also decided to add recommendations directed at the working level of local and regional authorities, documents related to this can be found on the CoRdiNet website under the keyword CERSP.

Win-win situation: NEREUS and Associate Partners of CoRdiNet

Earth observation is one of the focus activities of NEREUS, short for the "European Network of Regions using Space Technologies". NEREUS administered the Associate Partners of CoRdiNet, the positively evaluated applicants for the small project fund. This included managing the evaluation, but also the supervision of the obligations, the Associate Partners agreed on, as well as the financial administration of the small projects. This developed into a better understanding of their needs and challenges, and conceptual and organisational consultancy and mediation of new partnerships.

Knowledge Landscape Innovation Montitor

Regional Copernicus Hubs   Innovation Pipeline   COPERNICUS ACADEMY MEMBERS Copernicus Academy Gateway   Thematic Working Groups   Virtual Copernicus Hubs

COPERNICUS ACADEMY

INVENT   INNOVATE   INTERACT   INFORM

Fact box, project details, partners, key (public) deliverables
Two partnering projects with specific network-oriented, but also joint activities

Copernicus Academy

CopHub.AC is
- The overall aim is to establish long-term Copernicus hubs to consolidate and sustain the Copernicus Academy as a knowledge and innovation platform.
- To fulfill this, several nodes are created – like the Knowledge Landscape, dedicated thematic working groups, and a roadmap to sustain the Academy.
- Through an innovation pipeline, the project links ongoing R&D activities in Copernicus-relevant academic fields and fosters the mutual innovation process between academia and business on a high technical level.
- We have a clear commitment to a full thematic and geographic coverage for a Europe-wide boost in demand-driven uptake of space technology and geospatial information.

Networking and partnership
- CopHub.AC brings together core actors, early adaptors, and promoters of the Copernicus Academy along the innovation pipeline
- Following the principles of Open Innovation, CopHub.AC acts as an innovation hub for collecting, showcasing, and sharing best practice examples and new developments and service ideas of the Copernicus ecosystem
- Distributed knowledge, capacities and expertise of Coperncius Academy members is shown via the CopHub.AC Knowledge Landscape

Key public deliverables
- Published membership conditions and Gateway
- Idea and ambition of the Thematic Working Groups
- Concepts and prototypes of Knowledge Landscape, Innovation Monitor, and Citizen App
- Promoting the Innovation Pipeline
- Unified taxonomy as a key to successful user uptake
- Procedures of the Copernicus Partnership award
- Mutual links to EO4GEO Skills Alliance
- Roadmap for sustaining the Copernicus Academy including key considerations on health and growth

CopHub.AC main contributions
- Fostered attractivity and enlargement of the Copernicus Academy ecosystem through a well-orchestrated set of tools and structures
- Harvested the outputs of the Copernicus Academy R&D&I capacity through the Knowledge Landscape and the Innovation Monitor
- Informed industry, educational networks, authorities and the citizen about Copernicus and its societal benefits
- Promoted capacity building and connectivity with the EO4GEO Skills Alliance and the Copernicus Relays creating key measures to sustain the long-term impact of the Copernicus Academy network

Copernicus Relays

CoRdiNet is
- An open network, with five Copernicus Relays, with a coordinating function on local, regional, cluster and national levels
- Supporting, promoting and stimulating digitalization and new business solutions based on Earth observation data from the Copernicus project
- Bundling the local expertise in the civil use of Earth observation close to the needs and offers of citizens, administration and businesses, and will share them with other Copernicus Relays, Academies and new Earth observation players

CoRdiNet partners
The CoRdiNet consortium consists of six partners, five of them Copernicus Relays. Three Copernicus Relays have a regional focus (CNR/TeRN – Basilicata; bavAIRia – Bavaria; University of Leicester – East Midlands), one has a national focus (IMR – Norway) and the fifth contributes the expertise of a space application company (GMV – Spain). The sixth partner is NEREUS, the network of European regions using space technologies, which comprises about 24 regions in Europe and 37 Associate Partners. NEREUS mission is to bring the benefits of space uses to regions and their citizens while supporting European regional space policies.

Key deliverables
- Analysis of feedback from stakeholders
  We have analysed needs, challenges and barriers related to increased uptake of Copernicus data and products based on feedback from stakeholders and present a strategy to cope with the identified challenges
- Champion Copernicus Relays
  Copernicus Relays' activities have been analysed through interviews to identify the impact of the different categories of activities and events, and we provide an assessment of impact and potential for new user cases at target group level.
- Roadmap for digitisation
  The Copernicus European Regional Strategy Panel has prepared a roadmap for digitalisation using Earth Observation data and products. The roadmap provides .identification of target groups, policy objectives & recommendations and guidelines

CoRdiNet has
- Reached out to several thousand existing and potential users of Copernicus services from academia, local and regional agencies, small and medium sized enterprises, and others
- Organized or participated in more than 50 conferences, workshops, stakeholder meetings, including, among others, the EU Space Week, American Geophysical Union Fall Meeting, European Geophysical Union General Assembly
- Funded fourteen Associate Partners' activities aiming at increasing awareness and user uptake of Copernicus data and services all over Europe

Why you should read this booklet

This is a booklet about the experiences of two complementary Horizon 2020 projects, CopHub.AC and CoRdiNet, which are part of the user uptake strategy of the European Union for Copernicus data and services: The former is a project project of Coperncius Academy members, associations and SME´s, while the latter is a project of five Copernicus Relays and the NEREUS Association, Brussels, of about twenty four regions across Europe using space technologies.

You should read it, if you have the ambition to take your region to another level of using Earth observation data and services. In fact, all regions can gain from using Earth observation and Copernicus data and services in order to boost digitisation and help their small and medium-sized enterprises to become more competitive on an international market. For those who have the ambition to improve on their existing status, it provides the tools to help achieve excellence.

University of Salzburg
Department of Geoinformatics – Z_GIS
Schillerstrasse 30 | A-5020 Salzburg

Dr. Stefan Lang
+43 662/8044-7510 | stefan.lang@sbg.ac.at

Dipl.-Geophys. Peter Zeil
peter.zeil@spatial-services.com

Mag. Barbara Riedler, MSc
barbara.riedler@sbg.ac.at

www.cophub-ac.eu | Twitter: @CopHubAC

bavAIRia - Bavarian Cluster Aerospace
Sonderflughafen Oberpfaffenhofen
Friedrichshafener Straße 1 | D-82205 Gilching

Dr. Jürgen Vogel
+49 8105/272927-45 | vogel@bavAIRia.net

www.CoRdiNet.net | Twitter: @CoRdiNetB | Facebook: CoRdiNet