

Research Capacity for Uptake and Evolution of Copernicus

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Abstract
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Abstract

The earth observation programme Copernicus provides freely available satellite and in-situ data and derived information products in its various service domains atmosphere, marine, and land monitoring, as well as climate change, emergency management and human security. The use of such data and services facilitates innovative solutions for challenges faced by the society. For such innovation to be realized, inventions from research need to be validated as robust and relevant through the adoption by user communities.

The network of the Copernicus Academy with 150 members from research institutions is an invaluable pool of experts and application know-how from different domains and nations – in- and outside of Europe. The member's capacities and knowledge should be exploited to facilitate the search for expertise by location, thematic area and types of activities, to recognize and explore synergies, and to open the Academy for the general public.

To sustain the Copernicus Academy, increase its visibility and encourage research cooperation, the H2020 project CopHub.AC intends to create a knowledge and innovation hub. It will support the Copernicus Academy by dedicated activities such as mapping and monitoring activities, and liaising between its members in regard to initiatives of interest for the network, such as events and educational opportunities. As a second important function, the foreseen Copernicus Academy hub is to foster and link ongoing R&D activities in all Copernicus-relevant academic fields and thematic areas, as well as strengthen the evolution of Copernicus services and their uptake by industry and public authorities. Thereby the thematic working groups have a moderating, monitoring and advisory function within the hub.

To realize the above mentioned functions four technical components of the hub are foreseen: the CopHub.AC Gateway, Research Briefs 2.0, Knowledge Landscape and the CopHubCitizen App (Fig.1). The CopHub.AC's Gateway – the searchable inventory of the Copernicus Academy – facilitates the sharing of institutional information, educational offers and experiences between the members. The CopHub.AC's Research Briefs 2.0 provide the highlights of Copernicus-related research outputs, their

potential and existing application fields, the methodology used, key results, the innovative impact and readiness level to enable the process to innovation. The used taxonomies are not only a process of naming and classifying EO services but a tool to improve the understanding between communities. Links will be established to the emerging EO/GI Body of Knowledge (see www.eo4geo.eu) with respect to concepts and methods being used and the EARSC thematic taxonomy (<https://bit.ly/2UG4axB>) in terms of the applications and users, relating products and services that might help for the monitoring and reporting of the sustainable development goals (SDGs). To illustrate the distributed capacities – application and method-wise - within the Academy, CopHub.AC develops a Knowledge Landscape. Built on the information collected in the gateway and research briefs, distributed experience and capacities are illustrated and through combined search options are user-specific retrievable. Thus not only the collaboration within the ecosystem is stimulated but the interactive landscape also opens the door for non-scientists to be informed about the benefits of space-derived information. Finally, the CopHubCitizen App makes the knowledge landscape and the research capacities accessible for the interested public.

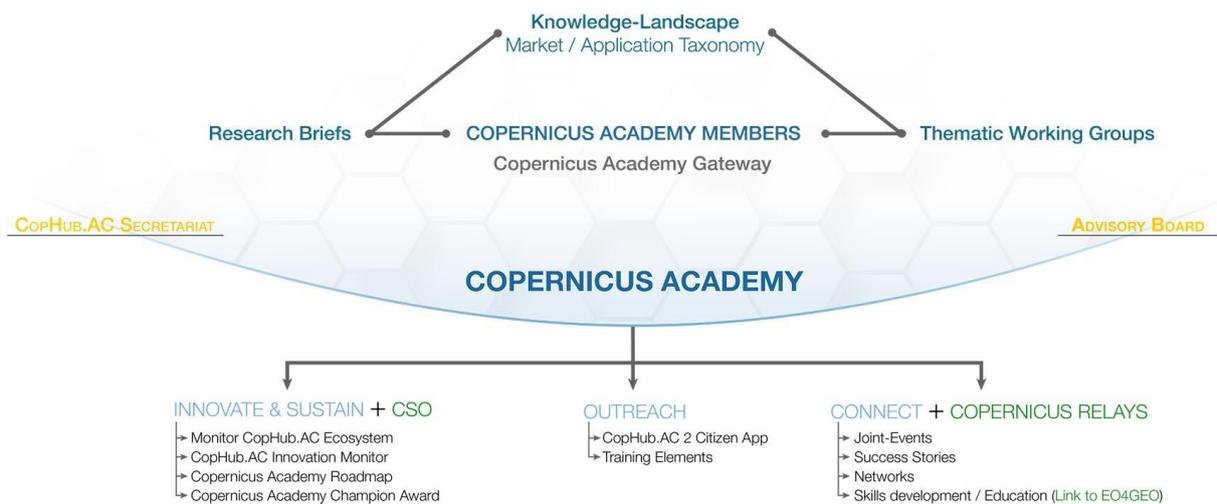


Figure 1. Elements to strengthen and sustain the Copernicus Academy