

HORIZON-CL6-DEC-2022-00-00: Building taxonomic research capacity near biodiversity hotspots and for protected areas by networking natural history museums and other taxonomic facilities.

<i>Conditions related to this topic</i>	
<i>Opening date</i>	2022
Expected EU contribution per project	The EU estimates that an EU contribution of EUR 5 million would allow these outcomes to be addressed appropriately. Nonetheless, this does not preclude submission and selection of a proposal requesting different amounts.
Indicative budget	The total indicative budget for the topic is EUR 5 million.
Type of action	Coordination and Support Action
Funding rate	100%
Technology readiness level	Activities are expected to achieve TRL [add range] by the end of the project – see General Annex D.

Expected Outcomes:

In support of the implementation of the Green Deal, the EU Biodiversity Strategy 2030 and the Birds and Habitats Directives, successful proposals will contribute to increase local taxonomic knowledge and expertise across Europe, especially on endangered species and other species groups of particular interest, to better understand and address biodiversity decline, its main direct drivers and their interrelations.

Successful proposals must address all of the following outcomes:

- Increased local taxonomic knowledge and expertise across Europe, especially on endangered species and other species groups of particular interest, through a network of expert trainers.
- Better taxonomic research capacity and reinforced digital networking, in particular near biodiversity hotspots and for protected areas, and access to materials, resources, advice, and professional expertise and infrastructures from museums and other taxonomic facilities, such as botanical gardens and biodiversity research centres.
- New taxonomy methods and technologies are put in use and tested in situ, in particular. identification methodologies and digital applications. Knowledge and tools are generated and shared among central and local taxonomy nodes in the network, as well as with citizen scientists and end-users worldwide.

- Strategic opportunities to promote integrative taxonomy in professional careers and academic curricula are identified. Pilot actions to address the current shortage of taxonomists are initiated.

Scope:

Professional taxonomists are highly specialised and skilled experts, traditionally working in academia or curating collections in natural history museums, botanical garden or biobanks. European collections hold and document 80% of the worlds' described biodiversity. Today, this expertise is increasingly required by decision-makers at local and regional levels to plan and implement conservation efforts, establish protected areas, combat invasive species, sustainably manage forests, fields and seas, and many other aspects of ecological, economic and societal importance. There are millions of species still undescribed and there are far too few taxonomists to do the job: global biodiversity is being lost at an unprecedented rate as a result of human activities, and, paradoxically, many species are disappearing concomitantly to the decline of the number of experts who are able to document that disappearance.

EU member states and associated countries, often lack permanent taxonomic capacity in the field, especially near biodiversity hotspots and protected areas, , and could greatly benefit from professional expertise, networking and infrastructures from natural history museums and other taxonomic facilities, such as botanical gardens or biobanks, contributing at the same time with adequate in situ conservation monitoring, data and samples.

Building on expert findings and recommendations, such taxonomic network should develop a plan for strengthening the taxonomic expertise in Europe, promote taxonomy in official curricula, and set plans for international collaboration. Expert taxonomy trainers across Europe ²³ should train a network of “followers”, by creating simple-to-use identification guides and methodologies, training programmes, online tools and activities adapted to local needs and resources (by area and by taxa of particular importance, such as endemic, locally-threatened species, those in the Red List, or intra-specific diversity). The network should also contribute with guidance, resources and expertise to the establishment of national reference collections for pollinators in all European countries (bee, butterfly, moth and hoverfly specimens), in collaboration with projects resulting from topic HORIZON-CL6-DEC-2021-00-00: “Data and technologies for the inventory, fast identification and monitoring of endangered wildlife and other species groups”.

The network should also fund calls to support, guide and supervise the establishment of adequate facilities in a pilot number of local nodes (such as wet labs, connected computer data nodes and remote communications), and promote the effective development of European infrastructures, such as the future DiSSCo's digitalised collections, eLTER or LifeWatch, and application of advanced taxonomic technologies (such as eDNA, genomics, AI).

²³ Such as the members of the Consortium of European Taxonomic Facilities (CETAF): <https://cetaf.org/>

The network should also seek to involve amateur taxonomists, reach for citizen scientists with tools and networks, produce/update a strategic mapping and agenda for taxonomic expertise in Europe, and identify gaps and needs for future actions. Gender aspects should be addressed both in amateur and professional taxonomy communities.