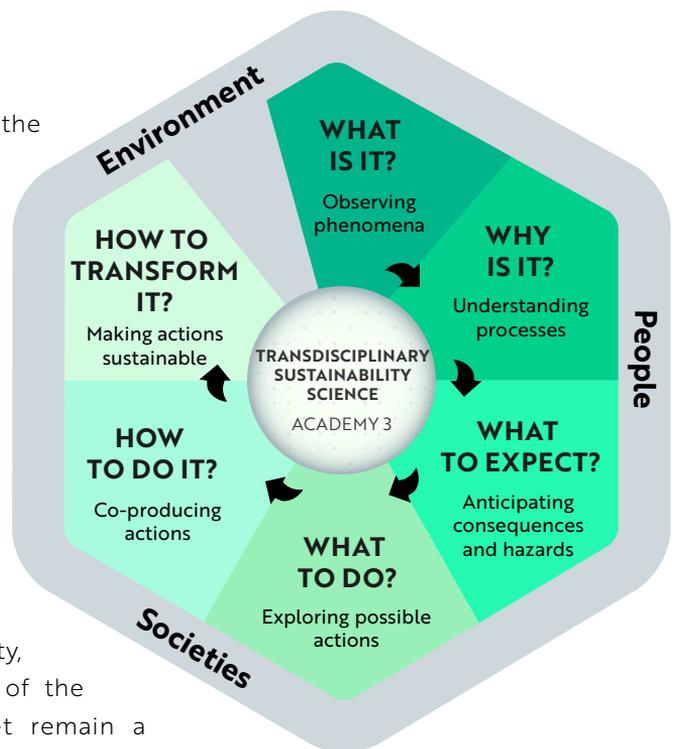


Academy 3 prospect for the years to come

> THE STATEMENT

The future of our Planet has become the greatest concern of our modern era. Natural and anthropogenic hazards are increasingly threatening the Earth and Life, and a major challenge of the present century is to provide our societies with strategies to meet these threats, reduce the risks, and allow for a sustainable well-being of living species, including humans. However, despite immense progress in understanding natural and human environments, the diversity, complexity, and interconnections of the ecosystems that make our Planet remain a mystery. Conflicting interests contribute to hamper our capacity to manage our world in a more sustainable manner.



The **Space, Environment, Risk and Resilience** Academy-3 has a core interest in the relationships and interconnections between people, societies, environments, and the Earth. This encompasses a large range of multi-disciplinary domains including physical, natural, and social sciences. The objective is to create a new paradigm of inter- to trans-disciplinary science where hazards are considered holistically, and risks described globally with all their components. In the last four years, Academy-3 has laid down the main cornerstones for inter-disciplinary research and training on hazards and risks. We now aim to move a major step forward.

> OUR CHALLENGE

The Academy-3 aims to contribute to sustainability transformations of our environments and societies. This requires developing new research approaches that overcome the current fragmentation of research, integrate scientific knowledge across different disciplines and actors, and co-create scientific questions and projects. This calls for the need to develop trans-disciplinary research that fuses physical, natural and social sciences and integrates scientific experts, practitioners, and the civil society. To reach this objective, the Academy-3 will promote integrated projects and approaches spanning a continuum from fundamental observation (**what is it?**) and scientific understanding (**why is it?**), to anticipation of consequences and hazards (**what to expect?**), exploration of coping strategies (**what to do?**), co-production of management responses (**how to do it?**), and design of sustainable development pathways (**how to transform it?**). We believe that only such a trans-disciplinary, integrated approach can help us understand natural and human environments, to decipher their complex, four-dimensional interactions (space, time, type of risk, and resilience), and to protect them durably.

> PROPOSED PATHWAYS

Over the next four years, the Academy-3 will foster projects (scientific and applied projects, training programs, workshops, dissemination projects, etc.) that will be deliberately trans-disciplinary and integrated as described above in order to pave the way towards sustainable development. Projects will be invited to include a reflection on the costs and benefits of the proposed actions at different spatial and temporal scales.

More specifically, the Academy-3 will encourage projects in the following priority pathways:

- 1) Assessing anthropogenic hazards on human health, environments and global changes.**
- 2) Remote sensing and artificial intelligence for natural and anthropogenic hazard assessment.**
- 3) Natural hazards (earthquakes, landslides, floods, climatic events, etc.) and impacts on environments and societies.**
- 4) Energy- and resource-related environmental challenges.**
- 5) Threats on oceans and coastal areas.**
- 6) Risk assessment and management in relation to smart cities and territories.**

In a transverse approach to these pathways the Academy-3 will encourage projects targeting two geographical areas, the Mediterranean Basin and the Global South.