

the factors and their plausibility explaining the empirical patterns. ROBHOOT consortium brings together different partners in the fields of computer science, neurobiology, complex system, biology, social sciences, evolutionary ecology and one SME all focusing on reproducibility, automation, visualization and reporting scientific data to different audiences. A reproducible, open-access, and automated tool will be developed accounting for global data-architecture and addressing scenarios of future strategies for sustainability.

- **Ecosystem health impact:** ROBHOOT focus on novel discovery solutions for ecosystems that can be under a varying degree of disturbances (e.g. fires, floods, droughts, overexploitation of natural resources). It uses a case study for overexploited ocean ecosystems with highly heterogeneous social groups and different interests in the exploitation of limited and shared resources. This is a technology designed to provide novel solutions for ecosystem sustainability, improving the underlying discovery paths, thereby connecting ecosystem sustainability and ecosystem health. This feature aligns to the EU Reflection paper towards a Sustainable Europe by 2030 and the UN's Sustainable Development Goals. ROBHOOT can be seen as an horizontal enabler for a scientific-based transition to sustainability based on large amounts of heterogeneous data, artificial intelligence and evolutionary-biology inspired solutions.
- **Building leading research and innovation capacity across Europe:** This consortium brings together excellent partners from the fields of computer science, machine learning, deep learning networks, neurobiology, complex systems, experimental biology, biology and evolutionary ecology, physics, theory and applications of complex systems in social networks, delivering a highly innovative science-based reproducibility, automation, reporting and communication tool focusing on sustainability solutions. All consortium partners exhibit a long-standing experience in interdisciplinary research across the boundaries of the individual disciplines. A web-based sustainability discovery portal will be produced (WP3), which will allow researchers, NGO, managers and the public to train students in the discovery process to manage over-exploited ecosystems. This will also allow to scale up the number of people participating in the sustainability process thus mobilising forward thinking researchers and excellent young researchers to work together and explore what may become a new discovery technology paradigm in sustainability research.

2.2 Measures to maximize impact

Dissemination and exploitation

A plan for dissemination and exploitation (PDE) will be developed and managed under WP4. It will address the project strategy and concrete actions related to: i) Dissemination: Open Access format; ii) Data Management: how data will be handled; iii) Protection: IPR strategy; iv) Exploitation, namely “business models”, and v) Communication, particularly the different action to communicate the project's results and prototypes to key groups of end-users. The PDE will also have a Dissemination and Exploitation Board (DEB).

- **Open Access:** Project reports and ISI journals publications will be under the Open Access format. Following the Open Science principles, software and scientific publications will be deposited in the online institutional repositories and on the EC Participant Portal. ZENODO (<http://zenodo.org>), a public repository recommended by the European Research Council and the EC, and supported by EUs OpenAire platform (<https://www.openaire.eu/>) will be also used for dissemination and communication purposes (publications, presentations, datasets, images, videos/audio and interactive materials such as lectures).
- **Open access to research data:** recommended data repositories (e.g. PANGAEA, NASA Goddard Earth Sciences Data and Information Services Center) will be used to share the generated data and software. Open-source codes and analysis of standardized inputs/outputs and software will be made public through an online platform with the aim of converting it in *the Reference Point* for any future research in knowledge discovery.
- **Data management:** Good research data management practice will ensure that data produced or used during ROBHOOT is registered, stored, made accessible for use, managed over time and/or disposed of, according to legal, ethical, funder requirements and good practice. This management