

fields. Prof. Elisa Thebault (female), France (expert in theoretical ecology and ecological networks) and Prof. Catherine Graham (female), Switzerland (expert in biogeography and ecological networks) have agreed to be members of the SAC. There are 11 people named for this project. There are 7 men and 4 women. With 36% of the fraction females is above the range being usual in the technical fields. The goal of ROBHOOT is to help younger non-PI and PI females to develop a research career in academia or in the industry (see section four for Gender balance statement for each institution involved). ROBHOOT includes four out of nine first time participants to FET under Horizon 2020, two young researchers and one SME: SCITE is the SME with all the team within the young researchers age, and the other three are IEO, EAWAG, and SRC, with a substantial contribution to the development of ROBHOOT.

#### **Management activities:**

The project coordinator (CJ Melian, EAWAG) will coordinate the work and its scientific input, communicate with EC, and organize the project reviews with the EC. The Project Manager (To be named) will work on administrative, financial and dissemination activities, and risk management. IPR set-up will be regulated by a Consortium Agreement. WP leaders will be responsible for WP planning, scientific and WP activities. WP groups will meet for the specific needs of each WP.

#### **Methods for monitoring and reporting progress:**

Meeting and reporting schedule is planned as follows: Every 3 months (oral and video-conferences) WP leaders report to the coordinator. Every 6 months the coordinator summarizes overall status to the SB. Every 6 to 12 months the coordinator setups SB meetings to review the progress of the project and to critically review the outlook for effective communication and deliverables. At months 12, 24 and 36 the SB prepares consolidated management and annual activity reports and also the coordinator and the Project Manager setup SAC meetings to obtain advice and feedback.

### **3.3 Consortium as a whole**

**Core Expertise:** The ROBHOOT consortium has been designed to represent the four central project requirements and is, thus, composed of groups with long-standing track records in: (1) IFICS-EBD-CSIC: Data-driven modeling expertise of evolutionary processes including adaptation and coevolution and complex networks; (2) EAWAG and TARTU: Theoretical and numerical expertise in eco-evolutionary dynamics and deep learning networks; (3) SRC and TU GRAZ: Theoretical and numerical expertise in eco-evolutionary dynamics of communities and neural networks including synaptic plasticity, heterogeneity and diversification, and (4) SCITE and IEO: Expertise in data collection for the Oceans’ sustainability case study and communication strategy for large and complex projects.

**Cross-Expertise:** Partners IFISC-EBD/CSIC have worked extensively in the last years on big data and complex spatiotemporal metrics, as well as in co-evolutionary processes shaping resource-consumer interaction networks allowing linking WP1 with WP2. Partners EAWAG and TARTU complement each other in network approaches. They will build eco-evolutionary process-based deep learning networks for causal knowledge discovery allowing linking WP2 with WP3. Partners EBD-CSIC, IFISC-CSIC, EAWAG, TARTU, SRC, and TU GRAZ are all familiar with abstract models allowing linking WP1 with WP2 and WP3.

**Table 3.2a: List of milestones**

Milestone number	Milestone name	WP	Due data (months)	Verification
MS1	Data knowledge discovery	WP1	28	OS-Soft, Paper/Conf., website
MS2	Causal knowledge discovery	WP2	30	OS-Soft, Paper/Conf., website
MS3	Discovery in federated networks	WP3	36	OS-Sof, Paper/Conf., website

### **3.4 Resources to be committed**

**Total Budget:** The ROBHOOT project run over 36 months. The total budget amounts to 2380960€, which is the same as the requested EU contribution. Direct personnel costs are 1721059€ and indirect costs 476192€. The budget is well-balanced among partners according to their roles in the project and provides sufficient resources to complete all tasks. Direct cost attributed to staff is 73%. This project is open-source software-heavy, as three full open-source software will be built, which is well connected to the dissemination part from our communication partner SCITE with about 10% of the total cost. Other major cost items of Other Cost cover travel and workshops (7% of the total cost, mostly for technical meetings and integration/evaluation stages).