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1. 2016/2018. Ecosystem consequences of eco-evolutionary change. Funded by EAWAG – Swiss Federal Institute of Aquatic Sciences and Technology.
  2. 2015/2017 EpiPhysX the physics of epithelium. Funded by the Swiss National Science Foundation (SNSF) SystemsX initiative
  3. 2013/2015 FoodWebs: a theory for next generation food web data. Funded by the Swiss National Science Foundation (SNSF)
  4. 2012/2014 SymbioCoRe SYnergies through Merging BIOlogical and biogeochemical expertise in COral Research. Funded by the EU FP7 International Research Staff Exchange Scheme
  5. 2009/2013 LINC-GLOBAL International Laboratory in Global Changes. Funded by the Spanish National Research Council (CSIC)

### **Infrastructure relevant to the proposed work**

SCITE office in Lisbon (Portugal) is fully equipped for data analysis, visualization, illustration, design and science communication. Computer power is available to all data analysis and visualization tasks involved in this project.

### **4, TARTU**

University of Tartu founded in 1632 is the largest and highest-ranked university in Estonia and with a number of students of approximately 15,000 (2018). University of Tartu is ranked 301 by the QS World University Ranking (2014) and 301-350 by the Times Higher Education World University Ranking (2019). The university is home to more than 1800 international students from 105 countries and 3,500 employees, which includes around 1,700 academics, and close to 200 professors among them. Today, it is a leading centre of research and training, and a member of the prestigious Coimbra Group of European universities.

### **Contributions to ROBHOOT**

Raul Vicente work for TARTU in ROBHOOT. Dr. Vicente is the lead of WP2. TARTU will develop deep learning technology to infer sustainability paths from causal inference in federate networks composed by species-rich communities, human groups and exploitation technology with special focus on the sustainability of the Oceans case study.

Prof. Raul Vicente (male) is full professor of Data Science at the Institute of Computer Science of the University of Tartu. He received the B.Sc. (first honours class) and Ph.D. (Summa Cum Laude) in Physics from the University of the Balearic Islands, Spain, in 2001 and 2006, respectively. In 2004 and 2005 he was a visiting scholar at the Department of Electrical Engineering of the University of California, Los Angeles (UCLA). From 2006 to 2013, he was a postdoc at the Max-Planck Institute for Brain Research in Frankfurt, Germany. In 2014 he became Senior Researcher in Neuroscience at the Institute of Computer Science, University of Tartu. Since 2016 he is Full Professor at the University of Tartu. He also received: 2001 Extraordinary Award for B.Sc. from the Department of Physics of the University of the Balearic Islands; 2006 Extraordinary Award for Ph.D. from the Department of Physics of the University of the Balearic Islands; 2007 QEOD European Physical Society award for the best PhD thesis in Applied Optics in Europe; and 2012 Attendee at the 62nd Lindau Nobel Laureate Meeting. He is also the head of the PhD program in Computer Science at the University of Tartu, and leader of the group of computational neuroscience (3 senior members + 8 PhD students). Founded in 2013, the lab focuses on the intersection between neuroscience and AI, and in particular on implementing and applying insights from brain research into AI solutions for the analysis of biological data.

### **Gender balance**

University of Tartu strictly adheres to the Gender equality Act and Equal Treatment Act that ensure equal rights, obligations, opportunities and responsibility of men and women in professional life, upon