Introduction
During the last decades, the number of large research projects has increased and therewith the requirement for multidisciplinary, multisectoral collaboration. Such complex and large-scale projects pose new competencies to
- form,
- manage, and
- use
large, diverse teams as a competitive advantage. For complex projects the effort is considerable due to the fact that multiple large international research consortia involving academic and non-academic partners, big industries, NGOs, private and public bodies, all with cultural differences, and individually discrepant expectations on teamwork. Furthermore differences in the collaboration between national and multi-national administrations and research organisations challenge the organisation and management of such multi-partner research consortia. How many partners are needed to establish and conduct collaboration with a multidisciplinary and multisectoral approach? How much personnel effort and what kinds of management techniques are required for such projects.

The Project
BASE-LiNE Earth is a European Training Network (ETN; MSCA 643084) within the Marie Skłodowska-Curie Actions in Horizon 2020. BASE-LiNE Earth started in 2015, and is committed to fill the gaps in trace element and isotope time series of the Phanerozoic Ocean. It comprises a network of more than 40 scientists from academia and non-academia coming from 17 countries all over the world with different cultural backgrounds.

Development of the consortium
To successfully establish research and innovation challenges, it is required to collaborate in consortia with partners from different backgrounds and expertise. The first step is to implement this is to develop a competitive consortium that brings together an international network of key leaders, innovative companies and other important stakeholders such as NGOs. For this you need to identify
- skills,
- resources, and
- experiences,
which potential partner have to contribute with and add value to the consortium.

Define roles, responsibilities, duties and rights of all partners potentially involved

There is no such thing as too many … as long as everybody fulfils its tasks and the management is well-conceived

However, apart from science the involvement of industrial partners give viability to the project. Today, the consideration of non-academic institutions is absolutely essential for being positively evaluated. Even if the size in multidisciplinary and multisectoral collaborations is not necessarily the first consideration when putting together an effective team, once the number of partners exceeds a certain value, which is considered to be the case for more than 10 partners, the establishment of a non-scientific management framework is necessary
- to ensure the project runs according to plan,
- to meet deadlines within the available budget,
- and to allow the scientists to focus on science.

The management structure
There are various elements to establish the management structure for large projects. Ideally the need of management functions should be identified and agreed upon at the very beginning. Typical elements of management structures are:
- Coordinator
- Management group
- Steering Committee
- Advisory Committee
- Supervisory Board
- Financial Board

Feel free to combine the different functions, if appropriate to your project. Not all are necessarily required for your project. However, whatever you decide on, avoid confusion over roles and responsibilities and make clear who reports whom.

The importance of internal communication
The ability to communicate effectively is one of the most important skills required. Keep the whole group regularly informed on status and provide meaningful feedback. Communicate clearly the scientific objectives and the proposed research that will be carried out to implement the project; Ensure common definition and harmonization of terms, ensure that the role of each is clearly defined and understood.

Conclusion
No need to get nervous. Plan your project and live your plan, but stay flexible and open minded.