

SCIENCE



LOICZ is an international research project involving scientific work from across the globe which investigates changes in the biology, chemistry and physics in the coastal zone. Embarking originally from a largely biogeochemical oriented global change project in the early 90ies, LOICZ in its second phase (until 2015) has expanded its research areas to include social, political and economic disciplines. The goal is to truly incorporate the human dimensions influencing the coastal zone and change.

Value added by LOICZ to the multiple globally executed individual scientific activities and the scientific community in general is largely in its interdisciplinary capacity. By bringing together leading scientists of a variety of areas in coastal research as part of a regular implementation strategy LOICZ fulfils its mandate to mainstream future scientific directions and to provide a forum for development of cutting edge research questions. This is orchestrated in a way that disciplinary experts are explicitly encouraged to cross traditional boundaries and foster integrative research on coastal change and human dimensions. As a result of this continued scientific discourse, LOICZ enables and harmonizes research that aims to provide the answers to the key questions as part of its implementation.

The LOICZ Scientific Steering Committee, an international group of leading scientific peers and increasingly also younger scientists, provide scientific guidance that oversees the development, planning and implementation of LOICZ research. They are appointed by IGBP/IHDP and globally located.

Key pillars of the LOICZ science as outlined in the Science Plan and Implementation Strategy (SPIS 2005) are core activities conducted under the direct leadership and/or supervision of members of the Scientific Steering Committee (including occasionally Corresponding Members). Those core efforts are organized in Priority Topics and Cross-Cutting activities each of which constitutes a temporary scientific focus which is subject to continued evaluation and review. Thus, the Priority Topics and complementary Cross-Cutting Activities are an expression of a continued synthesis and review process in LOICZ thus a “Living Science Plan”.

In parallel, a global, interdisciplinary network of scientists and institutions cutting across natural and social science disciplines contribute to LOICZ by affiliating their individual research activities to the LOICZ portfolio of contributing projects. Since 1993, this has been a number of over 400 projects including for example the former European Land Ocean Interaction Studies (ELOISE) research cluster of the European Commission. Currently, there are about 50 projects affiliated (see project database for detailed information). These projects constitute one of the backbones of LOICZ science in contributing to either one or more of the Scientific Themes or Priority Topics. They are an integral part of synthesis that is carried out by LOICZ in the context of the IGBP and IHDP contributions to the Earth System Sciences. Since affiliated projects cover a variety of spatial and temporary scales they also provide useful information assisting in the necessary up- and down-scaling of LOICZ results and knowledge products.

Future developments: In order to invite more strongly young researchers, LOICZ is intending to encourage young scientists to affiliate their academic work if it contributes to the LOICZ directions. Mechanisms for this “Young LOICZ” are currently being explored and will be communicated through this web site and elsewhere later this year.

In summary and in practical terms LOICZ scientific work is being implemented through a variety of mechanisms:

- Developing and mainstreaming cutting edge scientific directions and questions – the LOICZ niche
 - Designing, promoting and supporting targeted LOICZ research activities (largely in form of the core and cross cutting activities)
 - Designing and implementing targeted or open scientific workshops and congresses to work on a specific question or a subset of those along the LOICZ scientific priorities
 - Clustering and synthesizing existing or proposed scientific research activities on local, national regional and global scale primarily through the network of affiliated projects
 - Encouraging and promoting as well as supporting, scientific synthesis
 - Disseminating, and communicating scientific results and knowledge products
 - Capacity building and training.
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