

An example of researchers-stakeholders collaboration: the Observation Network of the Loire river basin Sediments (“Réseau O.S.L.A.”, France)

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Introduction: The Loire River basin is among the ten largest West-European rivers and the largest French basin. It is the subject of both an inter-state-regions program, known as “Plan Loire Grandeur Nature”, involving all local stakeholders, and a EU Operational Program with ERDF funding.

As for many EU river basins, a Water Framework Directive Management Plan was implanted in 2006, but it lacked proper data on the sediment compartment. Literature was scarce as well as site-based, which made general policies difficult to erect, let alone apply.

In 2011, with the support of the ILTER Loire site, 40 experts from science, administration and consulting firms assembled to discuss more effective ways of answering both scientific and operational issues in terms of sediment quality and quantity in the Loire basin. This round table led to the constitution of the Observation Network of the Loire river basin Sediments (“O.S.L.A. Network”).

Goals and research axes: All parts agreed that the main objective of this network should be “to improve knowledge of sedimentary processes at the scale of the continental river and its main tributaries, in order to optimize their sustainable management, by crossing scientific and operational issues”. Research actions were to be carried out by pluridisciplinary teams, in collaboration with experts from local institutions, involved from beginning to end. This is essential, as they possess an overall field knowledge of operational issues and actions that most scientists lack.

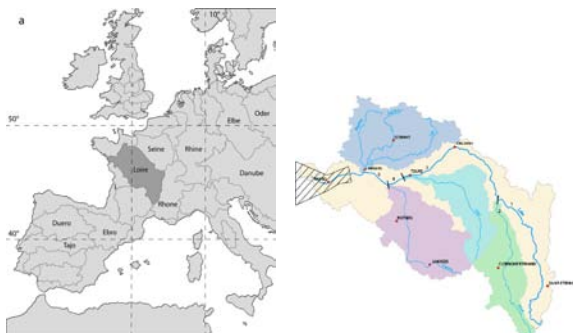


Fig. 1: Loire River basin situation; O.S.L.A. Network's study zone: the continental Loire river and its four main tributaries: Allier, Cher, Vienne, Maine.

Three research axes were defined:

Axis 1: Sediment Transport and Geomorphological Evolutions

Axis 2: Fluxes and Stocks of Pollutants

Axis 3: Sediments and Ecological Interactions

A fourth transversal axis, Sediments management: Tools and valorization, is aimed at transferring knowledge towards the basin stakeholders.

Results: To this day, 14 research programs have been funded, strongly supported by local institutions, for a total of over 5 million euros. Tools, resources and sites are shared as often as possible to ensure efficiency. These programs are carried out by 20 research institutes, and employ doctorates, post-doctorates as well as engineers and research assistants.

Issues addressed range from characterization of the rivers' variations in grain size, particle transfers from slopes to water bodies, to tracing heavy metals and organic pollutants sources, and assessing impacts of closed mines, destroyed dams, or river forest management plans on hydrosedimentary processes.



Fig. 2: The O.S.L.A. Network in action.

Perspectives: As our knowledge of the Loire system grows, along with the community itself, new questions arise and will be addressed. We also strive to strengthen our links with local actors and other fluvial systems, through the publication of bilingual booklets on basin management, and the organization of an international seminar allowing knowledge transfer and exchange of experiences, revealing the OSLA Network as an example of success in EU.