

Designing ambitious projects for river restoration

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Feedback from projects in Europe integrating the human and social sciences

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The European Water framework directive (WFD) has made the physical restoration of aquatic environments an essential component in public water-management policies. However, the initial feedback would indicate that ambitious environmental objectives and technical relevance are not sufficient to guarantee effective implementation of river-restoration projects. Project promoters who have succeeded in completing restoration projects frequently acknowledge that the greatest difficulty encountered lay in convincing the various local stakeholders of the value of the project. Though the viewpoints and language of engineers and technicians are clearly useful and necessary, they alone cannot guarantee the success of the venture. A hydromorphological restoration is also an economic, social, cultural and political project that often concerns an area much larger than the local area where the work takes place. In fact, designing such a project often consists of proposing changes in a territory, when the issues, consequences and goals of the project are not necessarily understood and approved by everyone. For project promoters, the question is therefore how to take into account and handle the various issues without accepting reductions in the ecological and environmental objectives.

In an effort to assist water stakeholders in designing ambitious restoration projects, Onema decided to step beyond its traditional field of technical expertise and call on the human and social sciences. A number of indicators, tools and strategic lessons are provided here in the hope of interesting and persuading the various stakeholders of the value of launching a project on "their" river and to assist in designing and conducting restoration projects targeting good water status.



Introduction

Toward the end of the 1980s, the secondary effects of numerous modifications in rivers started to manifest themselves clearly, including repeated damage to infrastructure such as bridges, riverbed incision and lowering of the corresponding water tables, degraded ecological functioning of aquatic environments, etc. In parallel, new scientific disciplines, addressing hydromorphology and river ecology, developed to explain the causes and consequences of the effects.

The new disciplines progressively identified an array of negative impacts on ecosystems and on their functioning, and then proceeded to explain the degradation of aquatic environments. This scientific progress incited public authorities to reconsider past policies and to take

a new look at the stated objectives of river development work (Figure 1). The initial RBMPs (river-basin management plans) in the 1990s illustrated this progressive change in outlook. They promoted the concept of "mobility space" for rivers and argued against altering river dynamics, two notions indicating a budding awareness of hydromorphological and ecological limits weighing on river projects. Since then, stakeholders in river basins have been encouraged to preserve the dynamic functions of rivers.



Figure 1. Kernansquillec dam.

However, it was the mandatory results imposed by the Water framework directive (WFD) in the year 2000 that made the physical restoration of aquatic environments an essential component in public water-management policies. A major effort in this field was expected in view of achieving good ecological status of water bodies required by the WFD. This was the case because, though river restoration is not explicitly mentioned, it is often simply unavoidable in reaching those goals.

To assist the river-restoration projects and structure WFD implementation, Onema and the Water agencies published several guides intended for water managers. For example, in 2007, the Seine-Normandie Water agency provided managers with a manual on strengthening technical arguments in favour of hydromorphological-restoration projects (Manual on hydromorphological restoration of rivers, AESN, 2007). The objective was to assist water managers in determining the suitable scope of projects in response to malfunctions in the rivers for

which they are responsible. Unfortunately, the proposed restoration projects have encountered significant delays in being launched and effectively implemented. In certain cases, projects can be executed fairly easily, e.g. when weirs have been abandoned for years, but the feedback from the initial projects shows that most often, the technical relevance of proposals is not sufficient to convince public installation owners to undertake a restoration project.

In a wide range of cases, restoration projects are confronted with reticence and even resistance on the part of the stakeholders impacted by projects. In addition to the fact that restoration work can involve major technical and economic operations, e.g. lowering or elimination of weirs, repositioning of dikes farther from the river bed, restoration of meanders, etc., they are not without consequences on the territory as a whole¹ or on the activities and habits of the inhabitants, in the widest sense. It follows that the doubts and

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concerns of the various stakeholders are legitimate and implementation of a hydromorphological-restoration² project generally requires a great deal of work to provide convincing arguments in support of the technical objectives. From a certain point of view, implementation of this type of project represents an innovation and even a break with past policies because the objective now is to rethink river installations, some of which are very old. This explains the difficulties encountered in managing physical restoration projects, difficulties that promoters frequently mention. In response, Onema and the Water agencies launched a set of studies to improve the management of river-restoration projects. A number of guides were drafted to assist participants in water management in conducting projects, e.g. *Current knowledge on the physical restoration of rivers* by Onema, *Better communication for better negotiations in river-restoration projects* by the Loire-Bretagne Water agency, *Designing and negotiating hydromorphological-restoration projects* by the Rhône-Méditerranée-Corse Water agency (all documents in French).

This document is a further step in that direction. It calls on the human and social sciences in an effort to accompany and encourage the launch of hydromorphological-restoration projects. The basic data for this *Knowledge for action* document was drawn from the analysis and comparison of twelve river-restoration projects in France and Europe (the CERCEAU study, see Box 1). This document is thus intended primarily for stakeholders wishing to launch a hydromorphological-restoration project, i.e. for the prospective promoters of river-restoration projects². However, people who support ecological restoration projects (e.g. wetlands) or others simply interested, involved or impacted by the design and implementation of restoration projects will also find useful information and resources. Readers will find here:

- a description of the analytical tools used to develop a strategic approach to restoration projects;
- a number of lessons drawn from the analysis of the twelve restoration projects.

The CERCEAU (European comparison of river-restoration projects) study, its assumptions and contents

The data presented are drawn from the feedback on river-restoration projects carried out in Europe and in France over the past few years. Launched by Onema in 2011, the purpose of the study was to:

- identify the factors leading to success in the projects;
- test the value of methodological tools developed specifically for strategic analysis in order to take advantage of the lessons drawn;
- pinpoint sources of improvement for the management of hydromorphological-restoration projects in France.

A total of twelve cases were studied, including five from elsewhere in Europe (Germany, Spain, the U.K. and Luxembourg). The cases were selected in the various countries studied because they stand out as illustrations of successful projects that encountered difficulties in their implementation. Each case study comprised half a dozen interviews with key players in the project and an analysis of the communication documents employed.

The purpose of the study was not to analyse the technical contents of each project, but rather to observe the internal dynamics from the point of view of the human sciences and focusing on the key moments when progress was made toward the objectives of the river-restoration projects.

The project-feedback studies were a chance to test and develop three analysis tools which may help in preparing the implementation of this type of project.

Box

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1. The term "territory" will be frequently used to highlight the importance of rivers in the identity of the populations living in the basin. The term may designate different areas, ranging from river environments and those in which the water is used, to the valley, a set of valleys or the entire river basin.

2. In this document, the terms "river restoration" and "hydromorphological restoration" are used indifferently.

1. Strategic considerations for river-restoration projects

Restoration operations cannot be limited to the technical aspects of each project. An effort to modify the morphology of a river is not simply a technical procedure. The restoration work in a project may involve reducing the height of installations, modifying the river pattern and the banks, the river discharge, the flood regime, the local customs and uses to which the river is put, etc. A hydromorphological restoration is thus an economic, social, environmental, cultural and political project that often concerns an area much larger than the local area where the work takes place.

An ambitious project will result in profound environmental modifications that will disturb the relations that local inhabitants and people familiar with the area have developed over time with the river and its territory. In light of the above, it is easy to understand why occasionally strong oppositions develop if the project is perceived as motivated by technical factors or objectives not shared by inhabitants and the concerned stakeholders.

In this type of situation, the feedback from projects shows that the restoration project is feasible only if a new and comprehensive vision of the river is presented.

The project promoter must project this new image of the river, its uses and functions, to interest as many people as possible and reduce the opposition. In this effort to convince, promoters of hydromorphological-restoration projects are nonetheless confronted with the difficulties inherent in any attempt to modify the equilibrium of a territory.

We present here two examples of difficulties traditionally identified by studies on social change and that regularly confront restoration projects. In both cases, it is necessary to consider two types of stakeholders, those who would like to see the project go through and those satisfied with the status quo.

The first difficulty has to do with the fact that the people who would benefit from the changes are generally less visible than the persons who already benefit from the current situation. The project promoter must encourage the participation of the first, i.e. those who will be able to use the restored environment and new living conditions to develop new opportunities (Figure 2).

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Figure 2. Effective change and innovation require the participation of stakeholders who will benefit from the restored environments and the new living conditions.

The restoration project must target in particular the future beneficiaries of the change who, though they are not the only persons concerned, represent potential allies for the project promoter. These stakeholders are, however, occasionally difficult to identify because they are not highly organised and not well represented in the economic activities that have traditionally benefited from the river. In addition, they are not always aware that they may be future beneficiaries of the project. The objective is therefore to present a "promising future", e.g. a river with more fish, a more attractive area for people to live and for tourists, etc. Conversely, stakeholders in favour of current river uses are easier to identify and generally quicker to organise in view of making their opinion heard.

The second difficulty has to do with the special position of the project promoter proposing the changes. The project is theoretically in the interest of the public as a whole and should benefit all the stakeholders impacted by the proposed restoration. However, the project promoter nonetheless represents a particular group and set of interests. In general, project promoters are professionals in the field of water and aquatic environments, e.g. river

boards, local ecological administrations, fishing federations, etc. Consequently, the legitimacy of their positions and their motivations are frequently questioned by other local stakeholders. The latter do not immediately acknowledge the value of physical restoration projects in rivers, the results of which may impact their own habits and customs.

Given these difficulties, it is not sufficient to propose a vision of the river restoration for the local area. To ensure that the project is effectively implemented, a positive situation must be created, i.e. convince a majority and reduce any opposition. There are numerous obstacles along this path and numerous elements that must be taken into account to keep the project on track over time. Meeting this challenge requires that the promoter of a hydromorphological-restoration project devise a strategic approach in order to answer the central question, i.e. How to produce a project that is meaningful and of value to the local area on the ecological, environmental and technical levels, but also the social, cultural and economic (see Box 2)?.



What is a strategic analysis?

The purpose of the analysis is to develop a mid-term approach capable of ensuring project implementation and overall success.

Addressing the conditions required for action, effective implementation and success, the analysis organises the various means available to the project promoter and looks closely at the interactions between stakeholders.

Based on the idea that the promoter's intentions are as important for the success of a project as those of the other stakeholders in the territory, the strategic analysis explores the possible futures and the favourable or unfavourable sequences of events impacting project implementation.

It assumes that in addition to the collaboration, the capacity of a particular stakeholder to convince indifferent people and opponents, to involve all stakeholders and negotiate with them, and to find allies among "powerful" stakeholders is a key and essential factor in bringing a project to fruition.

The term "strategy" was originally used for the preparation and planning of military operations, but today it also includes the techniques used to direct and control forces, and coordinate action in view of attaining an objective.

The three leitmotifs presented here should therefore be seen as fundamental guidelines intended to assist the project promoter in preparing, guiding and coordinating the action and communication in view of achieving the final objective.

To enhance the strategic approach to the possible trajectories of the restoration, the project promoter must be in a position to mobilise the human and social sciences in handling the technical aspects of the restoration project. Not all aspects and available tools can be presented here, but we wish to present three particularly important leitmotifs in designing and implementing ecologically ambitious restoration projects.

■ First, it is necessary to **define the position** of the project promoter with respect to the river and the territory, and to the population and stakeholders concerned by the project. The point here is to indicate clearly who promotes the various aspects of the project. On what scale and at what level can and should action be taken? What position should be adopted with respect to the other stakeholders in the project? This effort to place the project in its "context" serves to identify and define the main, strategic objectives with respect to the other stakeholders and to determine the initial guidelines for the proposed action targeting effective project implementation.

■ The second leitmotif concerns the **insertion of the project in the history** of the river itself and in the policies and work affecting the river. The objective here is to determine the role of the "restoration event" in the chronology of uses and activities in conjunction with the river and the surrounding area. What interruptions and what continuities will the restoration project involve or make possible? It is also necessary to see how the project fits in with more recent work and with the technical and political initiatives undertaken on the river. How will the project interact with recent modifications and the latest changes in uses?

● **Defining the project context (project initiator and promoter)**

An initial analysis of the strategic issues reveals the importance of defining the project context with respect to the two types of stakeholder networks that must be carefully distinguished, namely **the territorial networks** (various levels of local government) and **the professional networks** (professional groups and technical organisations) concerned by the project (see Figure 3).

■ Finally, the third leitmotif deals with the **conditions that must be created to launch and develop** this type of project, as well as the work that must be done to achieve those conditions. The twelve projects in France and Europe that were studied revealed a number of objectives and strategic issues, including the standing of the project promoter, the social, political and territorial relevance of the project, its technical and economic compatibility, and the sustainability of the project dynamics.

The project promoter has a certain degree of flexibility and various means (strategic variables) to deal with these strategic issues. The objective is to identify the decisive elements required to convince that the project is both necessary and useful, or, in other terms, to enhance project notoriety in the territory during its implementation.

For each of these questions, an analysis tool is proposed in order to observe and understand a restoration project, as well as to design and develop a strategic approach in the process of devising and presenting a hydromorphological-restoration project. These analysis tools (context table, time line and strategic analysis table) were first tested before analysing the feedback from the French and European case studies.

Both types of networks must be involved during the preparation of the restoration project.

■ On the territorial level, efforts must be made to increase its political visibility, its acceptability as well as its social and economic relevance. Discussions must be launched to instil a new vision of the river and its role in the territory. The objective here is to **convince** people.

■ On the professional and inter-professional levels, the objective is to achieve the best possible coordination between the project and the existing activities.



Figure 3. It is important to define the project context with respect to the two types of stakeholder networks that must be carefully distinguished.

These **negotiations** must ensure that the project is in fact implemented, even if some negative impacts on certain activities that already exist in the area may occur.

Analysis of project dynamics can also be used to distinguish two types of projects depending on the stakeholder initiating and structuring the project.

The entity taking the initiative for the project may be an institutional stakeholder in the environmental field

or it may be a local stakeholder, motivated by an environmental approach to a problem. This distinction based on the initiating entity determines the structure of the project because each type of entity will influence its integration in the territory and its coordination with other public policies (see Table 1).

A table to assist in defining the project context

	Institutional initiative	Local initiative	Strategic issues with respect to stakeholders
Professional networks (agriculture, fishing, environment, health / drinking water)	Coordinate the project with other professional/technical policies	Obtain support for the project via environmental policies	Negotiate the project with other professional/technical stakeholders
Territorial networks	Find a niche for the restoration project within territorial dynamics	Expand local support for the project	Convince local stakeholders concerning the utility of the project
Strategic issues depending on the initiator of the project	Make a "top-down" project more "local"	Increase project support on the territorial level and make the "spontaneous" project WFD compatible	

If the project was launched by **an institution**, the river restoration may be assumed to be WFD compatible because institutional stakeholders in the environmental field are in charge of implementing the WFD. The main difficulty confronting this type of project lies in the fact

that it must be inserted in the existing territorial dynamics and be coordinated with the other public policies in the territory. To avoid being perceived as a "top-down" project, links with the territory must be established.

In the case of a local initiative, the project originates in the territory, but the environmental group proposing the project often represents a small minority. Feedback from past projects teaches that the prime objective in this case is to expand local support by convincing a maximum number of persons. However, the environmental approach of the project is not necessarily WFD compatible from day one. A local stakeholder wishing to launch the project must coordinate it with the existing public policies, notably the environmental policies, in order to obtain the support of public entities. As a "spontaneous"

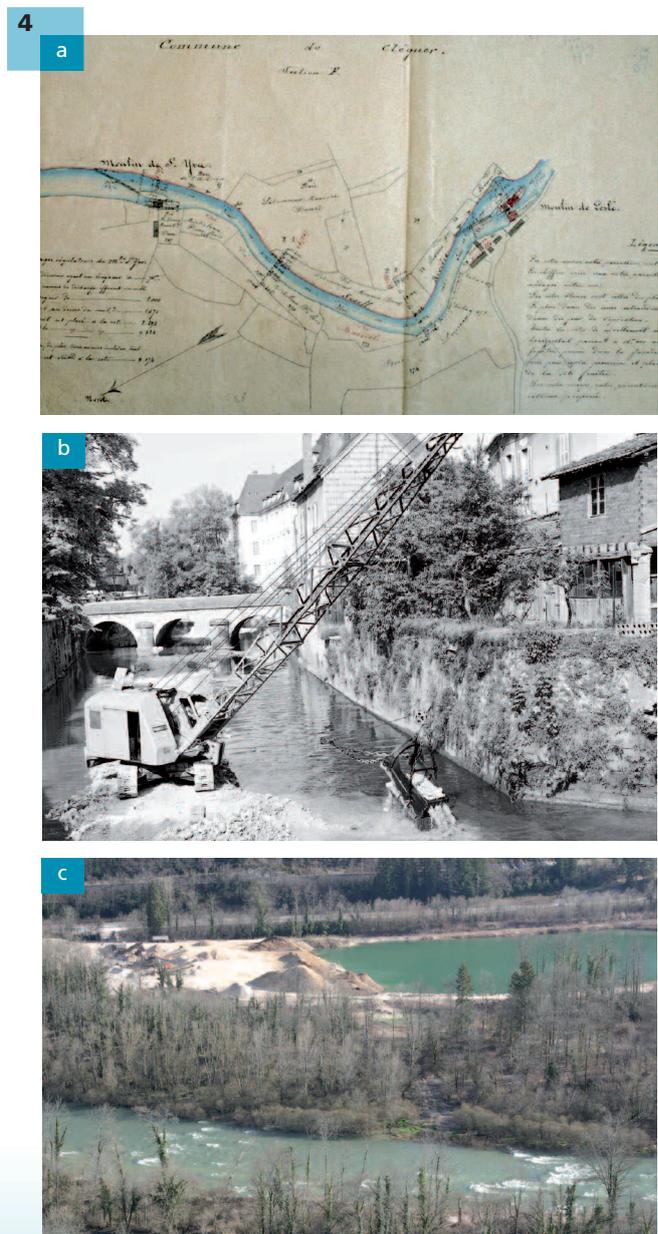
project, it must be capable of convincing people on both the territorial and professional levels.

These two aspects, the different types of networks and the different initiators, define the project context. They inform the project promoter on how to position the project with respect to the other stakeholders. Depending on whether the initiative is primarily local or from an environmental institution, the project promoter can adapt and set priorities for the work to convince and to negotiate.

● Historical perspective, a means to diagnose the situation and instil a positive attitude for change

As noted above, a hydromorphological-restoration project represents a more or less important and structural change in the river basin. A number of diverse arguments may be proposed in favour of the change, namely improving water quality, preventing floods, ensuring the development of fish populations, improving sediment transport and the landscape, etc. To organise these elements and structure their meaning, the project promoter can pull them together into a historical process used to "tell the story of the river and of the role played by humans".

The work done on the river, the quality of its natural environments, the rise and fall of various species and the permissible economic activities are all long-term factors. Presenting the history of the river and its relations with humans is a means to highlight the underlying themes as well as the role and full meaning of the physical-restoration project. The historical perspective serves not only to link the physical-restoration project to the territory, but also to highlight the malfunctions affecting the river and its uses in the past and that the restoration project will correct. "Telling the story" of the river is a chance to present an overall diagnosis and to support efforts to change the rules governing how the territory functions.



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Figure 4. The historical perspective serves not only to link the physical-restoration project to the territory, but also to position it with respect to the river's past and its uses.

For the above reasons, the history of the river is a strategic resource. Depending on the situation and needs, the project promoter can stress the continuity or the break with the past that the restoration project will represent in the history of the river.

The best technique in presenting the history of the river is story-telling, a means which can be used, in a rigorous manner, to pull together the many, diverse aspects to be presented, e.g. water policy, territorial planning, the economic and social history of the local area, the history of the local governments and the structures in which they interact, etc. A wide array of meaningful pieces of information must first be gathered before the story can be put together. Aspects may include changes in the population with the arrival of new inhabitants, the creation of new economic activities or the development of demand for recreational activities, etc. To organise and structure the information, one solution can be to set up a flow chart for each project along a time line, in

order to position the project in the recent history of work in the river and the area. Table 2 shows a simplified version for a project carried out on a river in Germany (the Ruwer River, see Box 3, page 12).

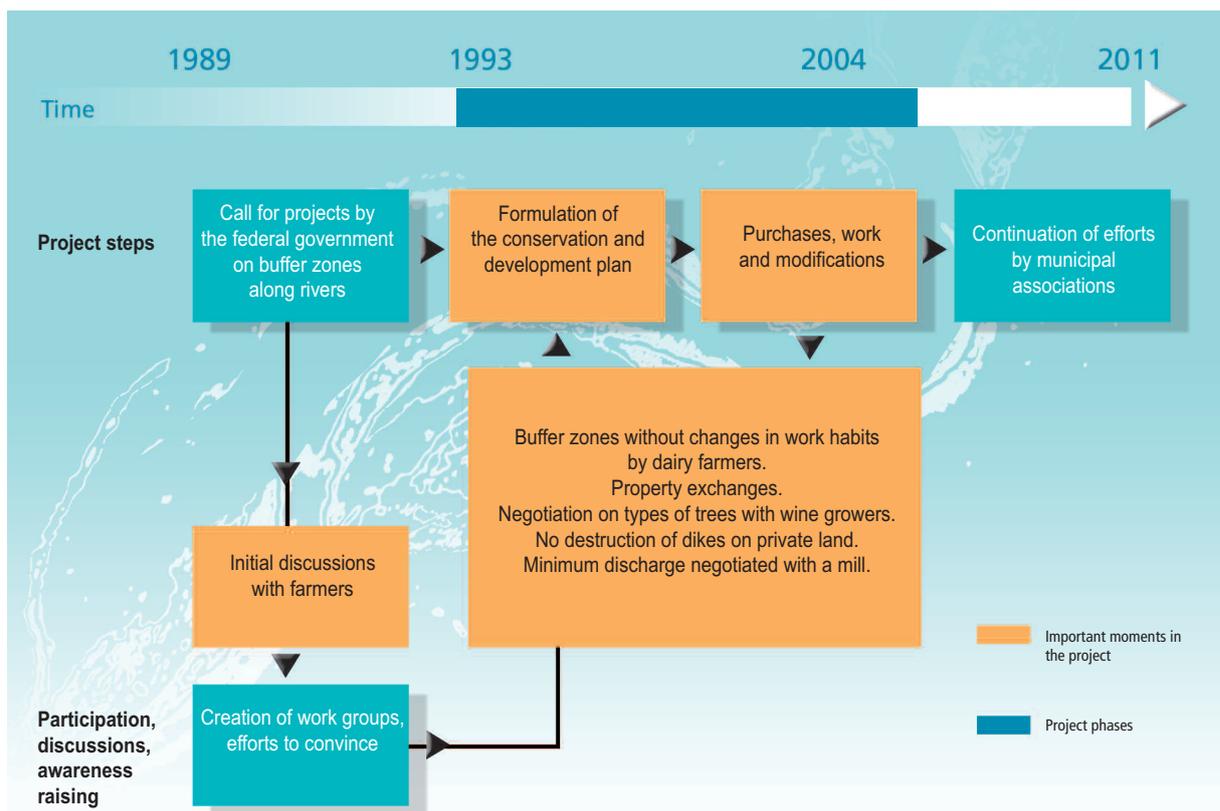
This type of presentation provides a two-way view of the restoration project:

- **analytical**, providing information on the various topics listed to the left in the diagram. This may include preliminary studies, exchanges with stakeholders, negotiations, discussions, notable events (demonstrations, conflicts, etc.);
- **diachronic**, listing all the events that occurred during the project, changes in institutional structures, etc.

This is a useful addition to the standard case studies and inserts the project in a longer time span (1993 to 2004, the dark blue section in the time line), i.e. that of the river and its future.

2 Example of a flow chart with a time line

Table



The time line provides the elements required to establish links and determine the causes behind the various driving forces in the history of the river in its territory. The arrows in the diagram structure the story that can be used to promote the next step in the project. Finally, used as a

forward-looking tool, the time line is a means to imagine how the restoration project could fit into the history of the territory and to anticipate on the events that must be organised to ensure the overall consistency of the project.

● Controlling and structuring the strategic factors of change

The first two strategic leitmotifs presented above serve to correctly position the restoration project in space and time. The next step should address the strategic factors of change to be mobilised by the hydromorphological-restoration project. In other words, what should be taken into account when initiating the project? The investigations required to structure the strategic approach should look into the strategic issues and the means of action. There are four main strategic issues.

- The **standing of the project promoter**, i.e. its legitimacy as a stakeholder in running the project in the given territory. How can the legitimacy of a stakeholder and its organisation be justified in view of managing a restoration project? What are the decisive factors determining legitimacy and how can it be made more visible to other stakeholders?

- The **social, political and territorial relevance of the project**³, a decisive factor in project acceptance. How can the relevance of a restoration project be enhanced? What information is required to achieve greater relevance? What must be communicated and what actions must be carried out to ensure social and political relevance and instil a new vision of the restored river? In other words, what means of "persuasion" should be employed socially and politically, in contrast to the technical "demonstrations" required for the next issue?

- The **technical and economic compatibility of the project**, which calls on the capacity to demonstrate the relevance of the project in technical and economic terms. Have the expected and potential advantages of the project been made clear? Does the project address the social and economic aspects, i.e. the activities and uses that will come into being once the enhanced quality of the restored river effectively exists?

- The **sustainability of project dynamics** draws attention to issues dealing with continued support for the project once the period of actual implementation has ended. How can the future of the project be ensured? What can be done to ensure that any progress achieved is not undone and that project dynamics are perpetuated over time?

These strategic issues constitute mid-term objectives for the project promoter. The feedback from the studied cases teaches that these issues are decisive for the success of the project.

In addressing these issues, the project promoter can act on three main variables.

- **Political and technical support.** The defining characteristics of the project promoter (type of organisation, resources, involved elected officials, etc.) result in a more or less effective mix of capabilities to politically and technically design the restoration project and, *in fine*, to handle the strategic issues mentioned above.

- **Local animation** to create, organise and manage events in the project territory to build up an image of the river and of the proposed changes, and to organise the collaborative efforts in favour of the project. The selection of the various types of animation (an action programme, discussions, negotiations, communication efforts, studies) is of strategic importance in addressing the four issues.

- **Project management** requires a very special set of skills and know-how in implementing this type of effort. In addition to technical skills required to accompany the necessary changes, skills in communicating ideas and working with groups are indispensable.

The combination of these variables with the four strategic issues is shown in the strategic-analysis table (see Table 3). Via the table and the analysis carried out on the twelve cases studied, it is possible to pinpoint the factors that turned out to be very important in the success of the various projects. Using this information, it is then possible to propose a few general questions whose answers may be of great use in formulating strategies.

3. Depending on the local context, project relevance may be expressed via a number of diverse aspects. Socially, project relevance will depend on local practices and customs. Politically, it must project a vision of the river and the relations humans entertain with it. Territorially, relevance must take into account the living conditions, the landscape and economic activities. In this document, any and all of these aspects may be mentioned in speaking about project relevance.

	Political and technical support	Local animation	Special skills and know-how for project management
Standing	How can project promoters be better incorporated in hydromorphological technical networks and in local political networks? How can the consistency between the political and technical promotional work be organised?	How can interest in the project be aroused? How can confidence be instilled?	What resources are required to appear credible (technical, financial, etc.)? How can structural advantages (long-standing history, land holdings, etc.) be promoted?
Relevance (means of persuasion)	How should the project be presented to demonstrate its congruence with the values (historical, political, cultural and social) of the territory?	How should the debate be organised? How can the project be made more visible?	What means of communication should be developed? What knowledge should be mobilised or developed to defend the project? What resources must be invested for the above purposes?
Integration (demonstrations)	How can the fairness of the project in the territory (winners and losers of change) be demonstrated? How can project integration with existing policies (flooding, environment, etc.) be demonstrated?	What selling points should be developed? To what point would a reduction in project objectives be acceptable (negotiating room)?	What monitoring of the effects of the project should be implemented? What resources must be invested for that purpose?
Project sustainability and dynamics	What commitments and decisions are required to ensure that the project will go forward? How can the project be made part of local policies?	How fast should the project go forward? What are the future way-points for the project?	

In addition to their prescriptive value, these elements can also serve for analytical purposes and were used on the twelve French and foreign cases. The analysis confirmed their general usefulness during projects, but also served to draw lessons from hydromorphological-restoration projects that have already been completed. By comparing the different cases, the analysis revealed a number of issues that came up repeatedly and, because they would appear to be general issues, represent strategic factors in designing projects. The following sections illustrate and propose a number of answers to the questions raised in Table 3.

It should be noted, however, that the analysis of the cases did not reveal typical trajectories capable of providing answers to the questions listed for the fourth strategic issue (Project sustainability and dynamics). The answers to these questions would appear to be specific to each case studied. For this reason, this document discusses the lessons drawn from the first three issues only.

2. Ensure the standing of the project promoter

The standing of project promoters depends above all on their legitimacy in taking action locally, derived primarily from their presence in the political and technical networks. For a particularly ambitious restoration project, it is clear that this legitimacy must be manifest from beginning to end of the project in order to justify the proposed structural changes.

For smaller projects, notably those limited to the riverbed, this aspect may be neglected in the beginning and the project may be launched fairly discreetly, however the cases studied showed that efforts to enhance the standing of the project promoter must eventually be carried out to ensure the effective implementation of the project and its acceptance by river stakeholders and users.

The issue of promoter standing is in fact a process that is never automatic. Even in the most favourable cases, promoter standing must be prepared and reinforced (see Box 3).

If questions concerning the legitimacy of the project promoter arise in the area from the start of the project, it is necessary to respond rapidly to lay the groundwork for confident relations between the promoter and the territory. It is important that the legitimacy be rapidly established or re-established. However, the confidence initially granted is fragile and must be consolidated to avoid any subsequent loss of confidence.

The analysis of the cases produced a number of lessons that are very generally applicable.

Consolidating the legitimacy of the project promoter for the Ruwer River

In the beginning of the 1990s, the German federal government launched a call for projects to rehabilitate and renature buffer zones along rivers. The Land of Rhineland-Palatinate submitted an offer to the federal government, proposing to work on the Ruwer River.

The Ruwer, located within the Land, is a tributary of the Mosel River and is 45 kilometres long, plus the 180 kilometres of its own tributaries. Agriculture, wine growing and forests are major factors in the landscape.

Similar to many rivers in Germany, intense development work has been carried out on the Ruwer, including rectification of the river bed and disconnection of tributaries in the process of creating irrigation systems for meadows, and water quality is far from satisfactory. The objective of the Land was to maintain and develop the natural landscape of the Ruwer, its tributaries and their basins, by taking advantage of the offer of the federal government with the 75% funding to launch the project.

Contacts were rapidly established to find local supporters and bring territorial stakeholders on board. Following long discussions with both the agricultural sector and the local governments during a series of meetings, the project promoters were appointed, namely the Trier-Saarburg district in a partnership with the Kell am See and the Ruwer municipal associations and the city of Trier. The district supplied the technical and communication resources that served to convince local elected officials. From the start, these efforts benefited from the political support of the district president, which made it easier to involve the two municipal associations directly concerned by the project.

In this case, there was a general framework provided by the federal government and support from the Land of Rhineland-Palatinate, that wanted to propose the Ruwer basin and suggested the Trier-Saarburg district (a subdivision of the Land) as the project promoter, with the smaller local governments as partners.

Today, the work to renature the river continues and is managed locally, directly by the municipal associations.

Box

3

● For initiatives by an environmental institution from outside the local project territory

Some projects are launched by administrations or higher-level local governments that want to propagate good practices, notably in the framework of efforts to comply with the WFD (Water framework directive). These institutions bring into play various procedures such as calls for projects, the LIFE programme of the European commission, sub-basin management plans, environmental contracts, territorial contracts, etc., in implementing local hydromorphological-restoration projects.

For this type of initiative, the prime factor in insuring the success of the project is to find as **early as possible a local relay capable** of assuming at least the political promotion of the project. Even if the institutional level funds virtually 100% of the costs, the local relay remains an absolute prerequisite for project implementation.

The task of identifying the best local structure and convincing it to promote the project may require a significant amount of work, particularly in terms of contacts with local authorities. Considerable care must be put into preparing this work. It will require a particular

type of communication, in the form of a mediation, to create some consensus among the viewpoints. Ideally, a local political figure should be brought on board to facilitate matters. By acting as the mediator between the institutional and the local levels, the political figure can accompany and support the process through contacts with other political stakeholders (see Figure 5).

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Figure 5. The local political figure must act as a mediator between the institutional and local levels.

● For local initiatives

Even in cases where the hydromorphological-restoration project is proposed by a river board, the environmental department of a municipal association or a fishing federation, the legitimacy accorded to the project promoter is not automatic.

There is still the need to widen the political base in favour of the restoration project. This is because the local, environmental support for the project generally represents a minority in the area. It is necessary to find allies among local stakeholders in order to develop sufficient political support in favour of the project within the area and in contacts with potential institutional funding entities.

This approach also requires the same type of communication, in the form of a mediation. **However, the search for allies must not result in a consensus turning project acceptability into the sole motivation, at the risk of neglecting the true purpose of the planned restoration project.** A "local compromise" that empties the initial project of its substance can result in losing other stakeholders who are just as essential for the success of the project. For example, a number of

compromises accepted to obtain the neutrality of industrial or agricultural interests initially opposed to the project may push funding entities interested in an ambitious environmental policy out of the project.

The difficulty here is to design a project incorporating from the start a "negotiated ambition" for the area, i.e. a project offering both ecological gains (biodiversity, better sediment transport, etc.) and the advantages that the river-restoration project can produce for the territory (advantages in terms of tourism, culture, recreation, the landscape and the economy, etc.). The goal is to generate interest in the project.

In some cases, the initiative comes from a minority even in the organisation launching the idea, e.g. the environmental department of a municipal association. It is then necessary to promote change within the organisation itself. The difficulty is even greater in such cases because the legitimacy of the environmental department is not always sufficient to drive the necessary change. In this type of situation, it may be necessary to find allies on a different level, e.g. preferably among the institutional stakeholders.

The latter are in a position to provide the project promoter with various resources, for example technical data and information in support of the restoration project, insertion of the local project in national and European policies, funding, etc. The project promoter finds itself in a situation symmetrical to that described in the previous section, i.e. it must obtain the support of institutional stakeholders to enhance its legitimacy and, *in fine*, strengthen its capacity to convince and negotiate.

The feedback from projects shows that it may, in some cases, be worthwhile to distinguish between the technical and the political promotion of the project. On the local level, the political promotion is essential to ensure that

the restoration project is accepted and becomes a part of local policies. On the other hand, it is no problem if the technical responsibility and associated skills are handled by the institutional partners or engineering firms. Delegation of the technical promotion to other stakeholders having the necessary skills and know-how can even enhance the legitimacy of the project and, by ricochet, that of the project promoter. However, particular care must be paid to organising the relations between the political and technical promoters. Failing that, a situation may arise in which the legitimacy of and the support for the project are weakened.

● During professional negotiations

Implementation of a restoration project involves negotiations with various stakeholders, representing economic sectors or public policies, or with land owners (see Box 4). Project promoters must have sufficient legitimacy to convene and lead these negotiations. The cases studied revealed a number of means to achieve such legitimacy.

When a restoration project has been launched directly by an environmental institution, the proposed objectives are, from the start, compliant with WFD objectives, a prerequisite for access to significant funding. Practically

speaking, the topics debated concern essentially non-environmental issues. To succeed in these negotiations, project promoters must **understand the technical and economic aspects of the various sectors** (see Box 5). They thus no longer find themselves solely in the framework of the hydromorphological-restoration project, but must address the technical parameters of the sectors with whom they are negotiating. To ensure that the negotiations proceed smoothly, the promoters must have on hand the necessary skills and know-how (technical, economic, agro-economic, etc.) for each of the sectors.

The issue of land ownership

Land ownership may be an important factor in consolidating the legitimacy of the project promoter. It contributes to the initial standing of the promoter as a valid stakeholder, as was shown in a number of cases where promoters could base their action on properties owned along certain sections of the river. However, land ownership does not relieve the promoter of the need to consolidate its legitimacy by widening its political base within the territory.

When land is not owned outright at the start of the project, but the land is a technical prerequisite in drawing up the project, the question arises as to whether the promoter is in a position to acquire the land. The promoter must have sufficient legitimacy to be able to negotiate the land purchases if the outcome of the project depends on effective ownership.

In some of the cases studied, this issue of land acquisition turned out to be decisive when negotiations with land owners failed. Land ownership can thus lead to conflicts, but the opposite is also true, i.e. acquisitions may be a means to exit conflicts, for example, if negotiations on site management have stalled, project promoters may decide to purchase the land in order to achieve their objectives.

Box

4

On the importance of negotiations, the example of the Syre River

The Syre River is a 31-kilometre, left-bank tributary to the Mosel River in Luxembourg. The river had been redirected to an old mill by a bypass canal.

The project consisted of filling in the canal, turning it into a trail and returning the river to the talweg, i.e. its former path over a section 2.1 kilometres long, without any mechanical preparation. The project required consolidation of 30 hectares along the valley bottom.

The forestry service (the project promoter) brought in an engineering firm specialised in agro-economic projects to acquire the necessary know-how in negotiating with the agricultural sector. A number of development scenarios for the farming systems in the area concerned by the project were formulated. The purpose was to test the technical and economic outcomes of various options for the farming systems, including scenarios not compatible with the restoration project. The differences in gross margins per hectare between each scenario served as the basis for the negotiations to set the indemnities paid to the farmers in exchange for their acceptance of the scenario preferred by the forestry service, i.e. the creation of a rustic breeding system for meat production.

In parallel on the European level, the Grand Duchy (Luxembourg) negotiated a suitable compensation system including a biodiversity contract. This two-pronged approach enhanced the promoter's credibility in the economic negotiations with the farmers.

The thirty hectares were subsequently transferred to three farmers who each signed the biodiversity contract. The contract imposes an extensive breeding system, without mowing, draining or fertilising of the fields, and a maximum load of 0.8 livestock units per hectare. In return, the farmers receive an annual subsidy of approximately 400 euros per hectare.

Box

5

The standing of the project promoter depends in part on its credibility in engaging professional negotiations and that credibility depends in turn on the promoter's capacity to demonstrate its know-how in the fields of its negotiation partners. The agricultural sector is one of the main sectors concerned by restoration projects and is very often pressured to adapt its work habits to the new operating conditions of the river (meanders, modified flooding frequencies, riparian vegetation and wetlands, etc.). In general, most farmers have little reason to come out in favour of a project that will require more or less significant changes in their work habits. This may result in blocked negotiations, however a number of the cases studied showed that by bringing on board the necessary technical know-how in the agricultural field, it is often possible to collaborate with farmers using their specific economic rationales and, in some cases, to negotiate changes in work habits or even in complete farming systems in exchange for compensation and/or land purchases.

In addition to the agricultural sector, a number of other economic sectors may be concerned by restoration operations and must be included in the negotiation process. Unfortunately, project promoters do not always have sufficient legitimacy to negotiate with certain sectors, for example the hydroelectrical sector whose economic results are often seen as the top priority. Consequently, hydromorphological-restoration projects can be launched and proceed for a period, while putting off the crucial issue of river hydrology (biological minimum discharges, morphogenetic floods, etc.), thus compromising the essential objective of the project. This type of situation often leads to a weakening of promoter standing in the territory because the impact of the actions carried out appears minor and insignificant compared to the initial objectives. It follows that certain difficult topics may initially remain on the sidelines in order to launch the project and build up a local movement in favour of the restoration, however it is of the utmost importance that the initial project stages be used to strengthen the promoter's legitimacy in view of subsequently addressing the difficult topics.

When projects are initiated locally, the legitimacy of the environmental objectives in conjunction with WFD issues is not always sufficient. **In many cases, project promoters have been obliged to carry out extensive discussions with environmental institutional stakeholders in order to confront the technical rationales.** Project promoters have thus had to negotiate with an environmental institutional stakeholder to obtain the necessary authorisations and funding. In some cases, these negotiations may require high-level environmental technical knowledge.

The cases studied clearly showed that the standing of the project promoter depends on multiple factors on different levels, which does not simplify the issue of how the project promoter should position itself. It is best to ensure the standing of the project promoter by taking into account the partners and working on:

- a territorial level corresponding to the legal responsibilities assigned to the promoting structure. Local political support

for the debates on local development is necessary to ensure promoter standing;

- a technical level capable of ensuring the quality of project design. This aspect may be separated from the political promotion and call on input from experts located outside the territory;

- an institutional level for environmental issues corresponding to the regulatory requirements on the national and European levels. The objective is to comply with the requirements and ensure solid support which may require discussions on the project well beyond the borders of the territory in question.

Each of the three levels mentioned above brings into play a diversified set of skills that may be provided by different members among the project partners. The job of the project leaders is to organise the necessary preparatory work and discussions on the various levels, while taking care to keep the project on track.

3. Develop the social, political and territorial relevance of the restoration project

To ensure the success of the restoration project, wide support for the environmental objectives must be secured. At issue in this section is the social and political value of the project for the territory.

Any lack of attention paid to this issue can weaken the entire project. A project promoter that has not succeeded in demonstrating the territorial value of the project cannot expect to convert any stakeholders other than those already convinced. The promoter will not be in a position to address a wider audience and propose a collective vision of the future that each person can

imagine and appropriate. In such a situation, any progress in the project comes up against the inevitable bilateral negotiations that take place in parallel with the various interests in the area (land owners, farmers, different uses of water, etc.). The objectives of the project become difficult to communicate and to share beyond the circle of institutional partners and their legitimacy in the territory is compromised.

Four main lessons may be drawn from the studied cases concerning how to prepare the information delivered and to organise discussions.

● Explain the project by communicating

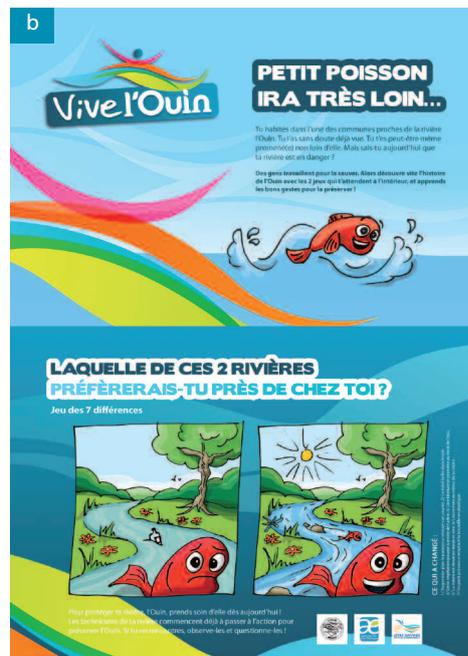
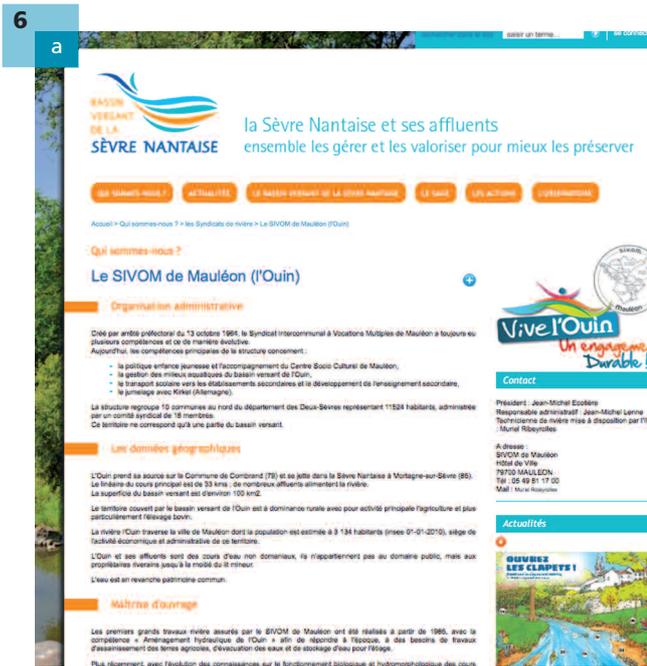
In a large majority of cases, good acceptance of the restoration project in the territory is obtained through a number of local events and by using, to degrees depending on each case, various communication tools.

Going beyond simple information, efforts to create events and to communicate on the restoration project

must highlight the various facets of the project. This variety in the facets put forward also explains the great diversity of communication vectors and media that can potentially be used, notably for large projects (see Figure 6), including brochures, articles in the local press presenting the progress made in the project, an internet site, a film on the work undertaken, etc.

Other possibilities include organising public meetings or creating discussion groups on various topics concerning either specific aspects or the project as a whole.

The use of these various means of communication and discussion are justified by the need to present and explain the shared interests in the project. Above and beyond highlighting the ecological features of the project, the point here is to make clear that the ecological advantages are compatible with the interests of various sectors, e.g. fishing, tourism, boating, local inhabitants, even farmers, etc. (see Box 6).



a, b, c © SIVOM de Mauléon and EPTB Sèvre Nantaise

Figure 6. A wide range of vectors and media should be used to highlight the various facets of the project.

And flooding?

The issue of flooding is obviously an unavoidable topic in presenting certain hydromorphological-restoration projects. In these cases, social acceptance of the project often depends directly on the management of the flooding issue, one of the main preoccupations of inhabitants and often the reason the project exists. All events and communication efforts address this issue.

The ecological dimension of the physical restoration of the river must not necessarily be used to augment the objectives of the project in order to reinforce its social and political relevance because the risk factors are often sufficient.

● Show off the project to make it real

Project visibility in the territory is also one of the objectives of the local events. They can take the form of activities in the field and workshops with the population.

In some cases, it is possible to include social and political aspects, i.e. not only environmental factors, right from the start of the project during the initial design phase. One of the cases studied succeeded in combining hydromorphology and local development based on recreational activities and tourism. The technical promoter of the project ensured its success by organising a regular political validation process at each step in the project with the elected officials of the river board as well as with the town in question that was particularly interested in the social and economic aspects of the project.

● Show that the project is outstanding

In some cases, the social and political relevance of the project is supported by stakeholders from outside the territory. By sending a positive image and signalling that the project is outstanding, these stakeholders contribute to making the territory proud of its restored river.

The small number of restoration projects and the relative difficulty of their implementation often leads institutions managing environmental policies to encourage "outstanding" projects. Certain projects are thus seen as showcases for the new policies addressing the complete water cycle. These projects receive visits and are mentioned during symposia. This visibility of the river beyond the borders of the territory confers value to the river and the surrounding area, which can facilitate project acceptance by the local population (see Figure 7).

● Involve the professional stakeholders

The issue of social and political relevance also arises with the professional stakeholders, but in a different manner. From the cases studied, it is clear that their involvement in designing the project facilitates their adoption of the overall procedure as a local project in which their economic sector has a role to play. Practically speaking, it should be noted that this co-design is not easy and

Making the project real means providing substance so that local people and stakeholders can imagine their living conditions once the project has been completed. One highly original case concerned a small river in a peri-urban context where the history of the area and the living conditions in the specific quarter were highlighted. The restoration of the river was presented as a structural component in the urban-development project, i.e. the project went well beyond ecological considerations alone. However, the difficulties encountered by the project to present the future of the river and calm the apprehensions concerning the proposed changes were finally overcome only once the initial work had been accomplished. Consequently, in some cases it is only when work has been effectively carried out that some stakeholders, reticent until then, are finally convinced. That is why it is important to communicate on the work itself and to "show it off".



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Figure 7. Land art is a means to enhance the visibility of the river within the territory and beyond.

can take on more or less developed forms depending on the situation.

In one of the cases studied, efforts to organise the debate, notably with farmers organised in topical and bilateral discussion groups, led to the establishment of a shared knowledge base comprising the technical expertise of the State services and the work habits of

the farmers. These discussions enabled the farmers to imagine the situation in the area reconfigured by the restoration project and to better perceive their role in that situation.

Another aspect of the project looked at the possibility of creating an environmental quality label for the farm products produced in the area covered by the project.

Contrary to these co-design approaches observed in some cases, other cases showed that it is necessary to remain vigilant in dealing with the economic stakeholders. Bilateral discussions that are not "publicised" enough to create a truly collective approach can often result in limited arrangements or deals that do not contribute to creating meaning for the territory as a whole. In addition to the fact that bilateral deals can constrain the objectives of the project, they can also be perceived negatively by other stakeholders in the project. Under these conditions, it becomes difficult to put together a political project for a territory on the basis of a deal "secretly" negotiated. **The cases studied show that bilateral negotiations are not sufficient to instil a project with meaning on the territorial level. It follows that the social and**

political relevance of the project must be created by wide-ranging, collective territorial discussions in order to position the project in a larger context.

The notion of social and territorial relevance is a long-term issue. The objective is to start the territory on the road to long-term changes that will affect both its image and the living conditions of its inhabitants. That implies working against the inertia of habits in river management and creating a new vision of the role played by the river in the territory. The analysis of the feedback shows that it is always necessary to collectively discuss the social and territorial relevance of the project, even in highly favourable situations, for example, where the project promoter has the necessary land holdings. The time and effort put into this relevance is the means to put forward clear objectives for the restoration project that establish its technical, social and political meaning. To that end, the promoter must be in a position to present solid arguments and to translate the technical objectives into social advantages and a political project in order to obtain public acceptance of the hydromorphological-restoration project.

4. Demonstrate the technical and economic compatibility of the restoration project

The point here is no longer to create territorial and political meaning for the hydromorphological-restoration project, but to demonstrate its capacity to fit into the existing social and economic structures. It is necessary to show the validity of the environmental project in technical and economic terms. This means that the

project promoter must increase the available expertise in order to precisely present the environmental features of the project and the (potential) opportunities created, as well as the constraints that it will impose on existing or possible human activities along the river.

● Multi-faceted technical expertise

To develop synergy between the various economic interests in the territory, the cases studied called on highly diversified technical expertise. In an array of cases, the promoters diversified the features of the restoration project to make it multi-dimensional (environment, sanitation, flooding, local development, etc.) and thus facilitate its acceptance by the existing

economic activities. **This work is required to identify the winners and losers of the proposed changes and launch the negotiations.**

Generally speaking, the negotiations with the professional stakeholders, including the environmental stakeholders, imply first developing solid technical arguments.

For example, enhancing the technical and economic compatibility of the project must not be limited to making it as acceptable as possible, but should rather call on technical arguments demonstrating the value of its various parts (see Box 7).

In some situations, the technical arguments must be based on high-level expertise, as was shown by some of the cases analysed. For example, certain projects initiated by local stakeholders had to prove their technical validity to the institutional stakeholders providing political and financial support. In these cases, the project promoters called on engineering firms specialised in hydromorphology to reinforce their technical credibility.

In order to demonstrate project compatibility with the existing economic sectors and activities, it is often

necessary to call on other types of expertise. Among the cases studied, technical analyses were run on the consequences of projects in terms of flooding risks, navigability, the development of fish populations and on secondary ecosystems dependant on the river.

Finally, given the complexity of certain projects and their innovative character, specific research work is undertaken in addition to bringing in outside expertise. For example, the studies carried out in certain river basins to increase sediment loading involved particularly sophisticated work.

The technical demonstration of ecological value can also be a central feature in restoration projects. This is the case when the project is experimental in nature and is perceived as a pilot project. The purpose is to test the improvement in the ecological status of the river



The role of expertise in the Ruwer project

On the Ruwer River, the project rapidly turned into a pilot project, due notably to the particularly large area concerned (approximately 260 square kilometres).

From the start, technical expertise turned out to be an important aspect of the project, including inventories and mapping of biotopes and water bodies with the corresponding uses, as well as territorial and landscape planning for the three towns involved in the project. The district also brought in an expert to estimate the cost of the agricultural land. The strategy implemented by the project promoter consisted of proposing (not imposing) changes in the work habits of farmers and foresters, or of purchasing their land. In spite of fears on the part of the farmers and wine growers as to whether the promoter could deliver and doubts concerning the restoration results, the negotiations nonetheless succeeded in deciding on a single price for land (no bilateral negotiations) that was relatively favourable for the agricultural sector. This opportunity, combined with a fairly unfavourable context for farmers at that time, induced a number of farmers to take advantage of the offer and sell a part of their land. A land-consolidation procedure was launched in parallel. The institutional support from the Land (region) and the Federal government in favour of the project contributed significantly to the success of the negotiations.

Other more specific negotiations also took place, for example concerning the tree species to be planted around the vineyards or minimum discharges, etc.

The project thus resulted in the local stakeholders making a number of commitments. They included agreements signed with foresters covering a total of 75 hectares, commitments to turn 100 hectares over to extensive farming techniques and agreements with the Ruwer and Kell am See municipal associations concerning the long-term continuation of the project.

In the end, the project included work to increase sediment loading, transformation of conifer forests into forests suited to humid soil, recreation of meanders over 600 metres of riverbed, the creation of natural buffer zones along the banks and an improvement in the sanitation system.

Box

7

following certain types of restoration work. A further objective of these experimental projects is to disseminate techniques and solutions throughout the environmental sector. This type of procedure should include monitoring of the situation following the restoration work to confirm, improve and, occasionally, rework the arguments in favour of restoration projects (see Figure 8). This point is important, not only to adapt communication and work to the actual needs, but also to enhance the confidence accorded to restoration projects by setting up true assessments of their effects on hydrosystems and territories.

8



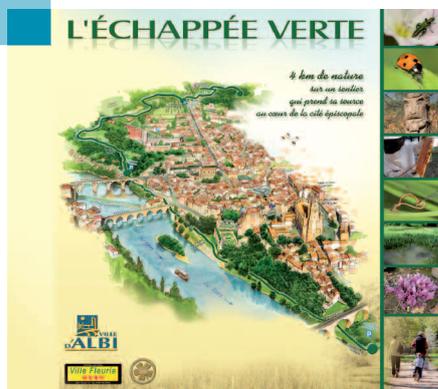
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Figure 8. External expertise should include monitoring of the situation following the restoration work to confirm, improve and, occasionally, rework the arguments in favour of restoration projects.

● Make clear the development opportunities for certain sectors

In addition to demonstrating the ecological value of these operations, we noted previously the importance of enhancing project value by informing on the value of the restored river for the territory as a whole. The goal here is to show that the project can be a source of added value for the existing economic sectors, e.g. tourism, agriculture, local recreational activities, etc. (see Figure 9). Via the advantages of the territory with a restored river, the project promoter attempts to create the conditions for future local development (see Box 8).

9



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Figure 9. The project must fit into the local context such that it evokes interest in the territory ranging well beyond the ecological aspects.

Territorial development in the Ruwer project

On the Ruwer River, the municipal associations and the district eventually took over the restoration project. The durability of this political commitment depended on the integration of the restoration project in an overall plan comprising the development of a territorial image in conjunction with the project and having a real impact on local development. The territory gained progressively in attractiveness for tourism, in step with the progress made in the project because the promoters did not initially perceive this opportunity. The attractiveness is based on the natural image of the river and the "yellow narcissus of the Ruwer". The sale of products benefiting from the image (trout, honey, etc.) increased and six hiking and cycling trails were created.

Today, restoration work continues under the responsibility of the municipal associations and the district, notably with the creation of buffer zones along the river banks. The approach is specifically oriented toward changing practices and habits in order to ensure the durability of solutions beyond the time limits for subsidies.

The project, now seen as a model project, will also be assessed every three years over a 15-year period for the Federal environmental agency which launched the original call for projects.

BOX

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It is important that the project fit into the local context such that it evokes interest in the territory ranging well beyond the ecological aspects. The economic potential of new activities made possible by the restored river is a key factor here. It may be useful to widen the circle of economic stakeholders involved by looking for new players beyond those already present in the territory and for whom new activities may represent a level of change that they cannot handle.

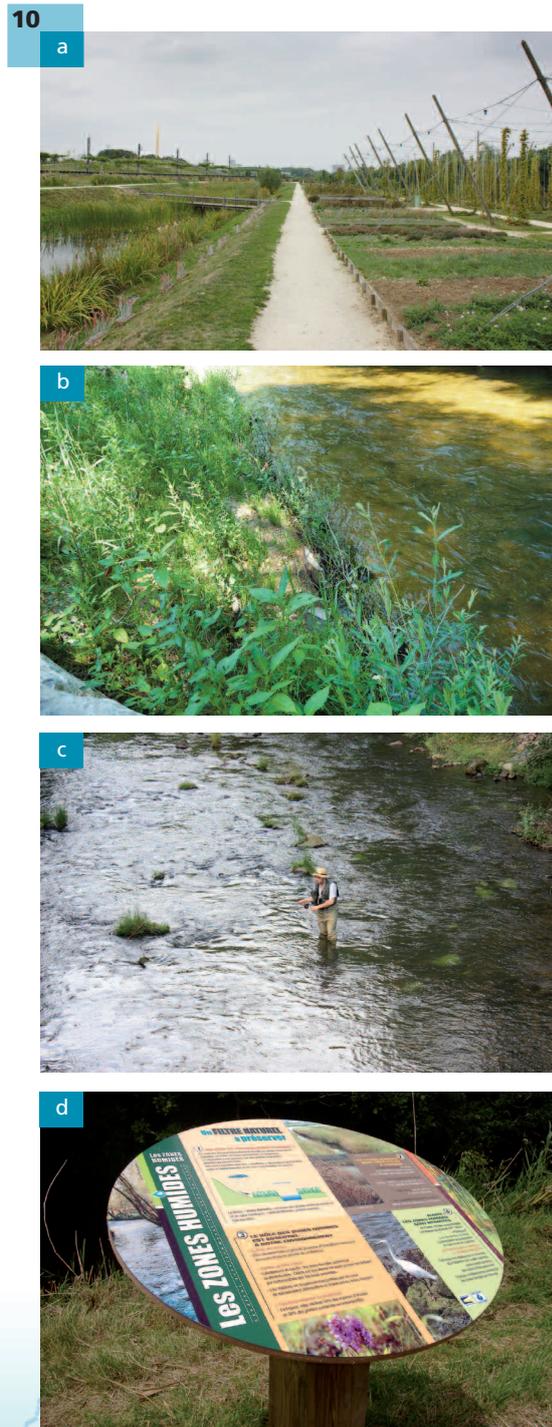
- Work on the landscape (architecture) to insert the hydromorphological-restoration project in an urban renovation programme.

- Parallel development of recreational activities and green tourism in conjunction with the restored site.

- Closer ties with hunters and fishers, who may become important local contacts in gaining the support of local inhabitants for the project.

- Inclusion of the restored area in efforts to obtain quality labels or regulated status (nature reserves, listing of the river mobility space in land and urban zoning documents, etc.).

The most successful operations were those that optimised the links between the environmental project and local activities. Below are a number of examples of operations undertaken to accompany the environmental project (see Figure 10).



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● Obtain institutional support in negotiating with economic stakeholders

Analysis of the cases studied demonstrated the importance of the economic negotiations. The topics discussed address funding and revenue losses caused by the restoration project. The long-term involvement of the economic sectors concerned by the project is ensured primarily through contracts and agreements (notably the agricultural sector). But in some cases, the involvement of the various sectors requires regulatory means, e.g. changes in water rights. However, use of these various means is difficult, if not impossible, if the institutional sector does not promote or at least support the project.

The issue of land prices is frequently the central topic in discussions with the agricultural sector. Expert advice is often required in dealing with this issue because the project promoter does not always have the necessary know-how. Except in cases where the project makes all future agricultural use of the land impossible, land purchases are generally seen as a secondary, but difficult solution if farmers refuse to sign agreements. In any case, negotiations with farmers always depend on the general agricultural context. A number of cases studied revealed problems with agreements and land purchases due to the growth of the agrofuel sector which had created development possibilities for farmers. Land prices had increased considerably, limiting the options for agreements and for land purchases.

In some restoration projects, the promoters attempted to go beyond contractual approaches and ensure the sustainability of desirable agricultural practices. They launched efforts with the sector to go beyond the notion of compensation. The objective was to institute the desired change in practices within the economic rationale specific to the agricultural sector in question, while nonetheless ensuring the environmental protection of the river. Analysis of these cases showed that to make changes in agricultural practices a possibility, the local-development project had to be expanded to include sectors other than the agricultural. For example, the project for the Ruwer River developed an image of an agricultural area in conjunction with the landscape and the river, placing an emphasis on quality-label products (honey, yellow narcissus, trout, wine) and tourist circuits, all of which is possible only in the framework of rather large projects.

It is not always possible to engage in negotiations with certain sectors on the local level where the promoter is active. Even though hydroelectric installations are critical hydrological factors in projects, the management centres are not always present in the

given territory (see Figure 11). This situation often leads to abandoning the negotiations and modifying the scope of the project. In these cases, **the active and sustained support of environmental institutional stakeholders is indispensable.** In all the cases studied, their support contributed to the sustainability of projects.

11



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Figure 11. The management centres of certain activities may be located outside the project territory.

Enhancing the technical and economic compatibility of the project is a mid-term objective. It must take into account the conditions stipulated in the negotiations and contracts. The time horizon is directly linked to the deadlines contained in the agreement with the stakeholders from the given sector. The analysis of the European restoration projects stressed the fact that technical and economic compatibility can be achieved if the promoter succeeds in proposing negotiations to the economic stakeholders taking into account the essential criteria of the economic sector participating in the negotiations.

However, the efforts to negotiate must not induce the project promoter to make technical and economic compatibility a means to enhance the acceptability of the restoration project. The objective is rather to demonstrate the ecological value of the project and, on the basis of that value, negotiate with the concerned stakeholders, sector by sector, to ensure the effective implementation of the project. The negotiations must therefore not limit the scope of the restoration project. Instead, they must contribute to revealing and justifying its many objectives (ecological, economic, social, political, territorial).

Memo of essential points

The analysis of the twelve restoration projects on French and European rivers confirmed the value of paying close attention to the four points presented here. Though the analysis identified a number of promising approaches, project trajectories are specific to each local context. It is not possible to define "one size fits all" procedures

applicable to all situations. In a given context, the strategic issues each weigh differently at different points in time during the restoration project and it is the manner in which they are managed that determines project success. That is why this document simply proposes an approach that is resumed below.

● Strategic considerations for river-restoration projects...

■ Institutional or local initiative?

The entity taking the initiative for the project may be an institutional stakeholder in the environmental field, in which case the project is generally compatible with water policy, but links with the territory in question must be established. A local stakeholder, motivated by an environmental approach to a problem, is the other possible initiator of the project. Local initiators often represent small minorities in the territory and must garner the support of a much wider circle, both locally to ensure the links with the territory and among the institutional stakeholders in charge of environmental policies. This difference in the initiators of a project is a decisive structural factor in the development of projects.

■ Two important partners, the territorial and professional networks

For strategic reasons, the project should address two networks of stakeholders, which each require specific approaches and communication techniques. It is first necessary to mobilise the territorial networks to generate political visibility and acceptance for the project, and ensure not only its environmental, but also social and economic relevance. Contacts with these networks consist of discussions to convince people of the validity of the project and instil a new vision of the river and its role in the

territory. In parallel, efforts must be made with the professional networks to determine how the project could best be coordinated with the existing activities along the river. Here, the work consists essentially of negotiating in order to ensure the effective existence of the project.

■ Link the project to the history of the territory

A hydromorphological-restoration project represents a more or less structural change in the river basin. The arguments in favour may be quite numerous and diverse, concerning e.g. water quality, flooding, biodiversity, sediment transport, hydrology, the landscape, etc. The work done on the river, the quality of its natural environments and the permissible economic activities are all long-term factors. Presenting the history of the river and its relations with humans is a means to highlight the underlying themes and the full meaning of the physical-restoration project. The best technique is in fact story-telling, which requires first gathering a wide array of meaningful pieces of information, drawn from the development policy, the economic and social history of the area, the history of the local governments, etc.

● ...Influence key factors determining the success of projects

■ Ensure the standing of the project promoter

The standing of project promoters depends above all on their legitimacy in taking action locally, derived primarily from their presence in the political and technical networks. For a particularly ambitious restoration project, this legitimacy must be manifest from beginning to end of the project in order to

justify the proposed structural changes. The cases studied show clearly that it is best to ensure the standing of the project promoter by taking into account the partners and working on:

- a territorial level corresponding to the legal responsibilities assigned to the management structure

and to the local political support provided;

- a technical level capable of ensuring the quality of project design and of acquiring input from experts outside the territory;
- an institutional level to deal with environmental issues in compliance with regulatory requirements.

The objective is to ensure solid support which may require discussions on the project well beyond the borders of the territory in question.

Each of the levels mentioned above brings into play a diversified set of skills that may be provided by different members among the project partners. It is the responsibility of the project leaders to organise the necessary preparatory work and discussions, while taking care to keep the project on track.

■ **Develop the social and territorial relevance of the restoration project**

To ensure the success of the restoration project, wide support for the environmental objectives must be secured. At issue here is the social and political value of the project for the territory. Four main lessons may be drawn from the studied cases concerning how to prepare the information delivered and to organise discussions in order to gain support, i.e. it is necessary to:

- take time to explain each aspect of the project;
- present the project in a descriptive scenario so that local people and stakeholders can imagine their living conditions once the project has been completed;
- make clear, if applicable, to local people that the project is outstanding on the regional or national level;
- involve professional stakeholders in multi-lateral discussions and not only bilateral negotiations, which are not sufficient to cultivate a sense of territorial community.

■ **Demonstrate the technical and economic compatibility of the restoration project**

The point here is to show that the project fits in the existing social and economic context and will develop synergies with professional interests. It is often necessary to call on potentially diverse technical skills because the negotiations with professional stakeholders require careful preparation of detailed discussion points. Economic terms and language are often useful for a stronger presentation. Successful projects have often been those that best optimised the links between the environmental work and local activities, e.g. urban renovation, hunting, fishing, management of natural areas, recreational activities and tourism.

● **...Key factors that must be adapted to each specific situation**

■ **Link social relevance with technical and economic compatibility**

The dynamics of most of the projects analysed were based on the capacity to set technical objectives and instil meaning for the local area. To that end, the coordination of two particular issues, i.e. social and territorial relevance on the one hand and technical and economic compatibility on the other, is crucial.

If the value of the project in social and territorial terms is not made perfectly clear, the efforts to ensure technical and economic compatibility risk being reduced to simple bilateral negotiations on project acceptability with the economic sectors. In the absence of a wide-ranging collective effort in support of the project, the negotiations can obscure the true purpose of the project and result in reduced objectives.

Conversely, if negotiations, agreements and efforts to show the technical value of the project are not undertaken, social relevance may never be achieved. Lacking compromises with the economic sectors firmly installed in the territory, there is a real chance that the project will modify a much smaller section of river than originally planned.

■ **Link project sustainability and the standing of the promoter**

It is certain that a project promoter in high standing in the territory and among the institutional stakeholders is a major factor in favour of the project succeeding over the long term. However, the success of the project can also enhance the credibility of the promoter. That is why it is very useful to set up a post-restoration monitoring system to confirm and further illustrate the environmental and ecological value of the project and enhance the reputation of the promoter. This type of virtuous circle also puts the promoter in a position to address new aspects of the restoration.

The question of the sustainability of the hydromorphological-restoration project obviously depends on the project objectives. For example, an operation involving land purchases and significant modifications to the river channel is less reversible than limited work on the banks and bed. The development of activities based on the resulting improvements is also an argument showing the relevance of the project and its acceptance by the population.



Finally, presentations of the initial project successes can pave the way for negotiations with economic sectors with which no progress had yet been registered, but that can no longer ignore the value of the hydromorphological-restoration project in light of the initial advances.

This overview of European projects also served to draw a number of useful lessons for each of the two main categories of stakeholders likely to become promoters of restoration projects (see Boxes 9 and 10).

Main lessons for local stakeholders

1. It is not necessary to have lined up the technical skills before launching a river-restoration project, only the political backing must be on hand when the project goes public.
2. The technical objectives of the project should be used to promote its value for the local area.
3. The project must be presented as relevant for the area by bringing to light any social demands and by promoting any local interests in conjunction with the project, which may be more or less clearly perceived by the public.
4. Local debates not limited to the standard topics (e.g. agriculture, hydroelectric generation, fishing, supply of drinking water, etc.) are often needed to detect all the local stakeholders who may be interested in the project.
5. The successful aspects of the project must be presented locally to enhance its notoriety.
6. Initial results must be used to reorient the project toward longer-term objectives and increase the number of issues addressed or the scale of the project.

Box
9

Main lessons for environmental institutional stakeholders

These stakeholders must adapt in their role as guiding and supportive forces, and as the guarantors of the environmental objectives.

- A. To ensure the ultimate quality of project results, it is necessary to accompany the local project promoters from beginning to end because they have their own specific objectives.
- B. The presentation of the project must make clear the value of the project for the local area by demonstrating the links between the technical objectives and social demands.
- C. Any specific requirements must be presented early in the project.
- D. Local negotiations must be supported by institutional negotiations on other levels (departmental, regional, even national).
- E. Necessary factors include regular involvement and clearly stated ambitious goals to ensure the long-term success of the project.

Box
10



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● For more information

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