

# THE COMMON TRANSFERABILITY MANUAL

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D.T4.3.1

Final Version  
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## References

Output O.T4.2.1 “Common transferability manual for sustainable environmental brownfield management”

Deliverable D. T4.3.2 “Common transferability manual for sustainable environmental brownfield management”.

## Credits

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Reviewed by the project partners

## Disclaimer

The manual reflects the partners’ views. The CE Managing Authority is not liable for any use that may be made of the information contained therein.

## Purpose of this manual

The Common transferability manual has been elaborated taking into account the project deliverables and outputs developed within the project.

The purpose of this manual is TO TRANSFER the project APPROACH outside the partnership and into other contexts.

## Targets

This manual is primarily addressed to local or regional public authorities responsible for the management of brownfields and in both decision-making and strategic planning of brownfield regeneration processes. As specified in the Application Form “*The manual ensures that GreenerSites approach will be transferable to other contexts ... to stimulate similar strategic paths in other CE FUA and brownfields*”. The potential audience of the manual may be wider and include central government agencies, regional development agencies and public-private entities in charge of urban development projects in the FUA.



## List of abbreviations

AF	Application Form
DSS	Decision Support System
FUA	Functional Urban Areas
GIS	Geographic Information System
LWT	Local Working Table
MoU	Memorandum of Understanding
PAs	Pilot Actions
SAP	Strategic Action Plans
IKF	Integrated Knowledge Framework
TM	Training Materials



# THE ROADMAP from BROWNFIELDS to GREENEERSITES

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“BE INSPIRED BY OUR EXPERIENCE”

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In the perspective of achieving a better environmental management of brownfields, the partners jointly implemented an experimental process to define strategies and actions based on a sustainable integrated approach. The collaboration in advancing the environmental performance of brownfields had the ultimate goal of also enhancing the living conditions of the citizens.

Adopting a step by step approach towards a sustainable regeneration of brownfield sites started with the involvement of stakeholders and a state-of-the-art assessment to evolve the Knowledge framework. Following this, and having understood the gaps to be overcome, a capacity building process took place to expand the skills of interested parties that have been up to that point involved in a co-planning process. Finally, strategic action plans have been arranged and stakeholders invited to sign a Memorandum of Understanding towards a long-term regeneration goal.



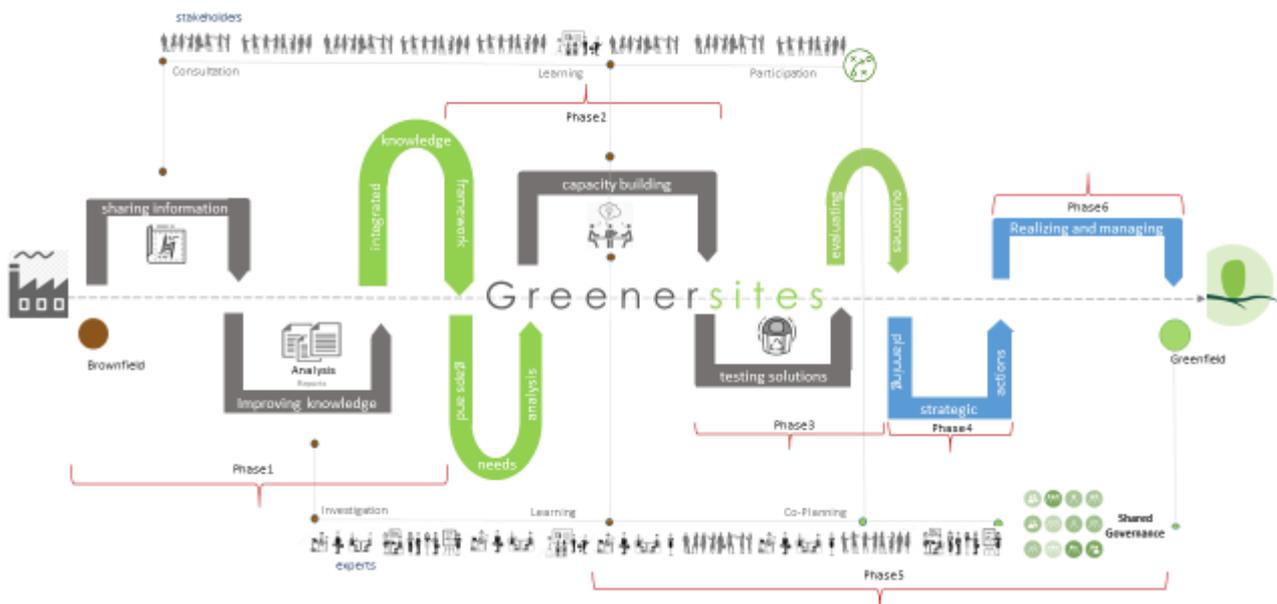
The **GreenerSites** project developed a PROCESS to provide the stakeholders, the experts and the decision makers involved in the rehabilitation of brownfields with tools and the potential to better manage the regeneration, tackle environmental issues and confront socio-economic concerns affecting the Functional Urban Areas (FUA). The Process tested in the pilot areas demonstrated the importance of the involvement of all interested parties in building both an Integrated Knowledge System and a Shared Governance, as well as the project strived for in increasing collaboration, innovation and smart solutions.

The challenging **GreenerSites** experience can be summarised in the following PHASES:

1. Developing an Integrated Knowledge Framework
2. Developing Capacity Building programs
3. Testing, evaluating and scaling up solutions
4. Planning strategic actions
5. Promoting a shared governance for a long-term sustainable development

Furthermore, the project defined also a scale-up strategy in order to ensure that the consequent phase of Realization (n. 6 in the figure enclosed) could be implemented and that the brownfields would become and would actually be managed as “**GreenerSites**”.

### the roadmap





## 5.1. Phase 1 Developing an Integrated Knowledge Framework

A comprehensive and **Integrated Knowledge Framework** is a precondition to ensure the awareness of any decisional process and the effectiveness of subsequent planning activities. It means that choices must be based on studies and research, on in-depth investigations, on a broad frame of data and on a set of valid indicators capable of representing the complex situation of both the FUA and the brownfields.

Combining diverse sources of data with different know-how detected by a wide group of stakeholders ranging from owners, public authorities, environmental agencies, research institutes, business support organizations and private companies is not an easy task; still it is recommended in order to take advantage of ITC Tools to create an Integrated Knowledge Framework, while ensuring the awareness contribution of all interested parties.

The engagement of stakeholders and experts in **GreenerSites** was essential to building the **Integrated Knowledge Framework (IKF)** and to achieving long-term sustainability.

The stakeholders collaborated and took part in about 60 meetings throughout the project duration. Participation represented an effective means of increasing awareness about the importance of exchanging data and information among involved institutions.

Experts were engaged in order to elaborate both an in-depth analysis and a literature review; they have also co-operated to create a GIS tool.

Both stakeholders and experts contributed to building an Integrated Knowledge Framework (IKF), essential for the optimisation of the decisional procedures and the planning activities.

The process developed to build the IKF comprised the following **STEPS**:

- a. involving relevant stakeholders for the sharing of knowledge*
- b. integrating studies and analysis*
- c. creating a collaborative GIS Tool*
- d. promoting IKS as a Decision Support System*

**A. Involving the relevant stakeholders** implied developing some tasks before, during and after the meetings with the interested parties. First it was important to map stakeholders on the basis of their capacity to influence the process of remediation and regeneration, taking into account decisional power, knowledge and interest. Once the most relevant actors were identified, they were encouraged to take part in the local working TABLEs, established with the purpose of exchanging knowledge and sharing strategies for long term sustainable development of sites.

**Meetings, workshops and site visits** were organized to help maintain the stakeholders' participation: they represented crucial and vital interaction tools.

In the **GreenerSites** project we experienced the importance of **planning** participation, **tracking** and sharing the next steps of cooperation, but most of all, we understood the relevance of giving **value** to all contributions received.

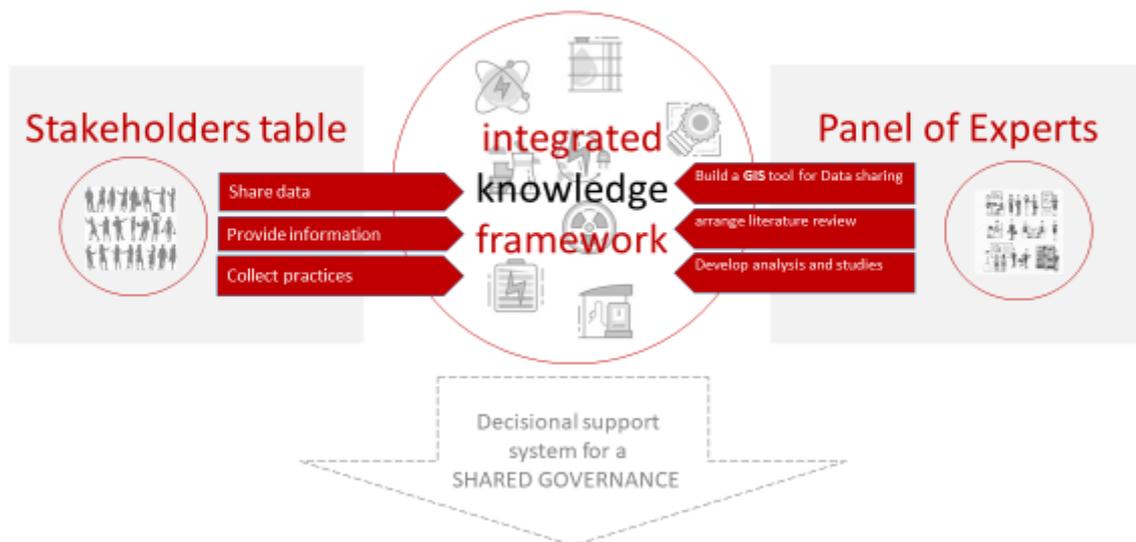


After the meeting we encouraged the stakeholders' collaboration and contribution by sharing working table results, including minutes, pictures, slides, position papers, reports, and useful materials to follow up on.

We invited relevant stakeholders depending on the focus point of each meeting, as planning the participation for each one was strategic for its effectiveness. Thematic workshops involving only interested stakeholders were integral to the achievement of both objectives:

- building a common integrated framework
- strategically co-planning the actions for regeneration and remediation.

### the **integrated** knowledge framework



**B. Integrating studies and analysis** required the contribution of a PANEL of EXPERTS. With the purpose of improving the scientific and technical knowledge, experts were invited to help in:

- investigating existing studies and research
- evaluating knowledge gaps
- developing a comprehensive analysis of the state of play

More details:

*In order to investigate existing studies and research*, experts proceeded by:



- analysing sustainable approaches and tools in brownfield regeneration and reactivation in order to draw a picture of the status of urban/peri-urban brownfield moving towards a more sustainable and integrated approach to environmental management of brownfields;
- develop a literature review and collecting good practices.

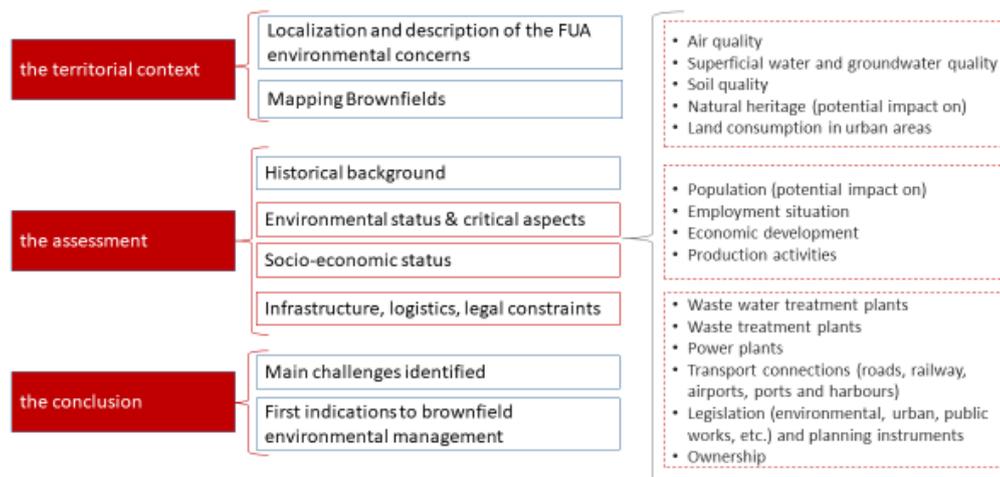
*In order to evaluate knowledge gaps, experts proceeded by:*

- collecting quantitative and qualitative data from existing instruments (such as remediation & master plans, sustainability & green strategies, monitoring systems already in place) regarding environmental and socio-economic status, infrastructure, legal framework, remediation measures;
- monitoring and understanding of the systems already in place, being aware that it is difficult to have a detailed picture of the sites due to National regulations, the fragmentary inventory of contaminated areas, data collection and accessibility: it was not clear who collects and provides specific data (public bodies, private owners etc.).

*In order to develop a comprehensive analysis, experts proceeded by:*

- elaborating an in-depth and comprehensive analysis trying to get an accurate picture of the contaminated areas in the region and /or FUA, focusing on the main environmental concerns resulting from current or past industrial activities, as well as on the status of remediation processes and the sustainable remediation techniques already experimented;
- describing the FUA territorial context, by mapping related brownfield, indicating their geographic boundaries, specifying proximity to inhabited areas and detecting the main environmental concerns;
- assessing the socio-economic and environmental frameworks;
- identifying the main challenges and detecting the first indications of a more sustainable approach to brownfield environmental management;
- arranging a summary overview of key findings to share with interested parties.

### The structure for analysis



- C. **Creating a collaborative GIS Tool** meant providing partners' institutions and their stakeholders involved in the brownfield rehabilitation process with a collaborative platform to share DATA.
- The Web GIS developed by the **GreenerSites** project partners is an application based on open source technologies. The system included basic maps and orthophotos, as well as



selected thematic maps and other geodata as required by each specific project. The tool met with OGC (Open Geospatial Consortium) standards and has been thereby fully interoperable with the common interfaces for web services based on the INSPIRE directive. It has been designed as a ready-to-use application, even if it may require some technical operation preconditions as well as specific administration competencies; the **GreenerSites** GIS tool allows data storing and sharing and it could be used up to this point for supporting analysis, implementing interventions, decision-making and marketing purposes.

The Web GIS tool is not conceived as a centrally operated application and database. It is developed to be used locally and it can be operated openly or solely internally with the intranet of a specific institution.

The GIS tool ensures that data concerning the pilot areas can be integrated both from public institutions managing the tool (top down) and from interested economic and social parties (bottom up). Developing and keeping it up to date could help planners, institutions and decision makers to better use available data, tackle environmental problems and manage the site in a more effective and sustainable way. Conceiving the web GIS as a smart open system should facilitate the sharing of datasets detected by different organizations and should ease its ability to constantly update.

**D. Promoting Integrated Knowledge System IKS as a Decision Support System** represented an important step of the **GreenerSites** process. It implied one side fostering the long-term updating process and the other side raising awareness of the importance of taking decisions based on knowledge.

Ensuring a *long-term updating* of the Integrated Knowledge System implied:

- Increasing the awareness of the importance of building a shared integrated knowledge system among stakeholders and decision makers;
- Stimulating the continuous exchange of knowledge by involving relevant stakeholders in a shared management process;
- Preparing and disseminating a tutorial explaining how the IKS and related GIS can be updated;
- Ensuring training on web GIS development.

*Raising awareness* and promoting the IKS as a DSS, implied at least:

- including the GIS tool in the agenda of the local working table with stakeholders, and showing interested parties how to manage information;
- explaining the data and contents that can be obtained by using the IKS to decision makers and planners;
- preparing and disseminating a tutorial to explain how to benefit from the IKS.

## 5.2. Phase 2 Developing Capacity Building programs

Brownfield management is a complex process that requires different skills and expertise and is most of all a continuous update of competences. In the **GreenerSites** project, a training



program for public employees was developed, taking into account the gaps observed during phase 1 and considering stakeholders' needs.

The training programme was tailored to both target groups and the features of the sites, thus having to be capable of providing participants with tools to better tackle brownfield management issues.

Managing the process of brownfield rehabilitation, with the wider goal of regenerating the FUA still in mind, requires the capacity to deal with a large sphere of interventions which range from the very technological aspects, to environmental, social and economic concerns. Public employees involved in brownfield management do not need to be specialists on all of these topics, but need to acquire the capacity to interact with all professionals and the understanding of their different technical languages.

The training modules defined and issued in the **GreenerSites** project also addressed other targets involved in the overall strategic plan. By means of tailored training courses, officers of the public territorial authorities, the FUA stakeholders and the brownfield interested parties had the chance to improve their expertise in planning and managing brownfield regeneration in a sustainable way.

The process developed in the **GreenerSites** project to develop capacity building programs comprised the following **STEPS**:

- a. Analysing gaps and training needs*
- b. Developing a tailored training program including site visits*
- c. Evaluating effectiveness and impact of training*

**A. Analysing gaps and learning needs** of employees of local institutions and their stakeholders meant identifying the competences to be reinforced in order to better manage a brownfield rehabilitation process and to improve the effectiveness of environmental measures to be undertaken in the FUAs.

In the **GreenerSites** project, we arranged a questionnaire to detect participants needs and to understand the interests of the targets in the local context. The figure hereafter provides a synthetic view of the questionnaire used.



## Questionnaire to analyse gaps and needs

What institution do you represent?	What kind of remediation technologies would be the most interesting to you (if any)?	Would you like to know more about availability of brownfield data?
What information would be the most helpful regarding sustainable brownfield renewal?	<ul style="list-style-type: none"> <li>options appraisal</li> <li>monitored natural attenuation</li> <li>permeable reactive barriers</li> <li>air sparging / soil vapour extraction</li> <li>ex situ and in situ bioremediation</li> <li>stabilisation / solidification</li> <li>chemical oxidation</li> <li>soil washing</li> <li>thermal desorption</li> <li>all remediation technologies</li> <li>Please list any other remediation methods you might be interested in:</li> </ul>	Yes / No/ I don't know
<ul style="list-style-type: none"> <li>legal responsibilities associated with brownfields</li> <li>permits associated with brownfield renewal</li> <li>assessment of ground and ground water contamination</li> <li>methods of probing</li> <li>planning the remediation</li> <li>most efficient remediation methods</li> <li>economics, calculation of remediation costs</li> <li>risk assessment</li> <li>waste management in brownfield remediation</li> <li>monitoring of ground and ground water</li> <li>funding sources for brownfield renewal</li> <li>social aspects of brownfield remediation</li> <li>financial and fiscal measures for brownfield redevelopment</li> <li>institutional governance of the rehabilitation process</li> <li>environmental rehabilitation measures</li> <li>Please list any other topic you deem to be important</li> </ul>	What aspects of historical contamination would be interesting to you?	What kind of remediation phase interests you the most?
	<ul style="list-style-type: none"> <li>how to identify historical contamination</li> <li>the legal aspects of historical contamination</li> <li>the obligation of the owners of the land with historical contamination</li> <li>none</li> </ul>	<ul style="list-style-type: none"> <li>planning: evaluation concept, sustainable remediation concept, stakeholder</li> <li>involvement,</li> <li>investigation</li> <li>remedy options, selection of remedy methods, remedy construction,</li> <li>operation and maintenance</li> <li>monitoring, optimisation and closeup</li> </ul>
Please add any comments regarding the expectation from local training here		

### B. Developing a tailored training program implied:

- identifying topics for training on the basis of: the outcomes of the questionnaire, the comprehensive analysis and the IKS updating requirements, as well as taking into account the FUA regeneration objectives;
- selecting and inviting target participants among public environment bodies, environment units in companies, owners of brownfields, NGOs in areas of environmental protection, individuals dealing with brownfields;
- identifying professional trainers, and sharing with them the scope of the capacity building process and asking them for advice regarding training materials;
- organizing training sessions at local level (adopting formal and non-formal approaches to courses);
- sharing the training materials within the community of relevant stakeholders, addressing in particular those not in attendance to the training courses to help disseminate the tools.

The training program developed in the **GreenerSites** project included formal classroom activities, workshops and non-formal training initiatives, such as study visits to selected remediated sites in Europe.

The study visits were a very effective training approach as it engaged participants and allowed them to learn from peers. A sound organization of the study visit required the selection of the appropriate sites to be visited: the sites had to have similar characteristics and environmental concerns, as well as having to pose comparable societal challenges. Additionally, the sites to be visited could be chosen as best case examples, notably a place where solutions were successfully carried out.

For a successful outcome to the visits, it was important to plan the details with hosts and participants, as well as to prepare questions for hosts, stakeholders, peers or experts in advance, thus enabling the discussion and the peer learning process during the site visit.



Furthermore, a dynamic and interactive event where visitors learned from the hosts by means of short presentations and peer-to-peer discussions proved to be an effective way of facilitating the exchange of experience and knowledge. After the study visits, all participants were invited to fill in a reporting form and to provide their feedback on lessons learnt, and so contributing to the elaboration of a comprehensive joint training report with the purpose of it all being shared with other colleagues and relevant stakeholders that didn't have the chance to take part.

**C. Evaluating the impact of training measures implied:**

- measuring the knowledge acquired after the training,
- assessing the satisfaction of participants;
- evaluating the impact of the training in terms of expertise acquired and changes of attitude or way of working.

To measure the knowledge acquired varied on the basis of training that was issued, while both the evaluation of satisfaction and the assessment of impact have been jointly undertaken.

Participants' satisfaction has been analysed by means of a questionnaire launched the day after the training event (summarized in the figure below). The impact of the training measures was verified at a later stage by checking participants' capacities to integrate the IKS and to strategically plan actions.

## Questionnaire to evaluate the satisfaction of participants

<b>Evaluation of results of training on sustainable remediation</b>	<p><b>General satisfaction</b></p> <ul style="list-style-type: none"> <li>• the training on sustainable remediation met my expectations/needs</li> <li>• I gained useful knowledge and information</li> <li>• I will be able to apply such knowledge and information to my work</li> <li>• The presentation on "topic" by Mr/Mrs ..... was useful and interesting</li> <li>• I gained lots of information from the site visit, it was very interesting to see the site "...."</li> <li>• Time allocated was adequate to the contents</li> <li>• The training materials were useful and well prepared</li> </ul>	<p><b>ANSWER</b></p> <ul style="list-style-type: none"> <li>• Strongly agree</li> <li>• somewhat agree</li> <li>• undecided/neutral</li> <li>• somewhat disagree</li> <li>• strongly disagree</li> <li>• No Answer</li> </ul>
<b>Evaluation of results of training on GreenerSites GIS TOOL</b>	<p><b>General satisfaction</b></p> <ul style="list-style-type: none"> <li>• the training on the GreenerSites web gis tool met my expectations/needs?</li> <li>• I gained useful knowledge and information?</li> <li>• I will be able to apply such knowledge and information to my work</li> <li>• The presentation on "topic" by Mr/Mrs ..... was useful and interesting</li> <li>• I gain lots of information from site visit, It was very interesting to see the site "...."</li> <li>• Time allocated was adequate to contents</li> <li>• The training materials were useful and well prepared</li> </ul>	<p><b>ANSWER</b></p> <ul style="list-style-type: none"> <li>• Strongly agree</li> <li>• somewhat agree</li> <li>• undecided/neutral</li> <li>• somewhat disagree</li> <li>• strongly disagree</li> <li>• No Answer</li> </ul>
<b>Evaluation of general organization issues</b>	<p>How do you reckon the training organisation?</p> <p>How do you reckon the technical appliances used during the training?</p> <p>How do you reckon the site visit to the site "...."?</p> <p>How do you reckon the meeting organisation in .... ?</p>	<p><b>ANSWER</b></p> <ul style="list-style-type: none"> <li>• Very good</li> <li>• Good</li> <li>• Satisfactory</li> <li>• Poor</li> <li>• No Answer</li> </ul>



### 5.3. Phase 3 Testing solutions

In the **GreenerSites** project, the Pilot Actions (PAs) represented a milestone of the developed process, allowing specific challenges to be tackled, as well as the investigation of certain critical aspects on brownfield management and the testing of solutions on the basis of recognized best practices in the concerned sectors and disciplines.

The Pilot Actions developed offered the chance for partners and stakeholders to test the integration of technological solutions focusing on different aspects of the brownfield rehabilitation process.

The process developed in the **GreenerSites** project to test solutions entailed the following **STEPS**:

- a) *Comparing best practices against challenges and select PA*
- b) *Developing and Monitoring the PAs*
- c) *Evaluating results for scaling up*

**A. Comparing best practices against any foreseen challenges** implied:

- detecting, in collaboration with stakeholders, the main challenge and summarizing it in a very short but comprehensive text to be shared and approved by the interested parties;
- inviting a panel of experts to identify the best practices existing in the sector and in the disciplines capable of facing the challenge detected;
- providing stakeholders, managers and planners with a selection of the most innovative solutions that can be tested at the site, taking into account socio-environmental and economic features. In this way, by comparing challenges and Good Practices the decision makers can define the PA to be implemented at the site, as well as how they can adopt related monitoring schemes to take control in both advancement and potential impacts.

**B. Developing and Monitoring the PAs** required the adoption of a Quality Management Scheme based on a PDCA cycle (Plan, Do, Check, Act), where the phase of Planning is followed by the phase of Doing, which is then accompanied by a continuous monitoring known as Checking, enabling the detection of problems in due time to finally Act with the necessary corrections and the vital corrective actions to obtain the right improvement to an undergoing ACTION.

Monitoring Pilot Actions is something to be done during each phase's implementation and it is important to design a monitoring system in advance to reduce the risk of gathering data in a non-effective manner.

The Monitoring & Evaluation Plan developed in the **GreenerSites** project was arranged with the following purposes:

- A *documentary* to describe what happens during the PA implementation;
- For *assessment* purposes, to verify strengths and weaknesses of the Pilot Actions and whether their objectives and expected results have been achieved in terms of fulfilment, effectiveness, sustainability and impact;
- As a *formative* means to provide recommendations and appropriate adjustments in order to improve the quality of the following strategic action plan.



At the end of the pilot actions, the partners elaborated a report sharing the outcome of the pilot action. For this purpose, they adopted the following common structure:

- Pilot Action Title
- Place/area of PA implementation
- Duration of PA implementation
- Costs related to PA
- Background and challenges faced
- PA objectives
- Activities carried out
- Technical specifications and solutions tested
- Impact/ results/ experience (how many target groups/ stakeholders were reached, pilot events)
- Contribution to project objectives
- Transnational added value as to how PA contributed to other activities implemented by the project & added value for partners
- Compliance with the sustainability principles
- Media coverage

**C. Evaluating results**, is a more important task in comparison to monitoring due to a long-term perspective in ensuring the **scale up** of the pilot action. Evaluation should engage the local players actually involved in the Pilot Actions. It is important to encourage the Stakeholders to critically assess the effectiveness of the pilot action by judging its relevance, impacts and effects.

The evaluation is executed with a participatory dialogic and reflective approach in order to better analyse lessons learned by all the interested parties, improve the process in the long term, and transfer know-how and practices, while steering towards both a more effective strategic planning process and a more sustainable management of brownfield.

The evaluation activities aim at:

- establishing recommendations and lessons learned in order to improve the quality of further Actions and plans;
- suggesting, wherever necessary and within an effective timeframe, appropriate adjustments to the Actions and the integration of solutions;
- verifying the strengths and weaknesses of local projects and whether their objectives and expected results have been achieved in terms of fulfilment, effectiveness, sustainability and impact;
- providing an argumentative assessment at the end of the Pilot Actions regarding the achievement of results and objectives.

The evaluation of different Pilot Actions, shared by the **GreenerSites** project has been carried out in order to homogenize the data and the information collected in different pilot areas. We adopted the following tools:

- A Results-Oriented-Monitoring (ROM) review;
- A final evaluation questionnaire;
- A dialogic session with Pilot Action stakeholders.

In particular, the Results-Oriented-Monitoring (ROM) has been developed on the basis of a structured methodology of co-funded project review. In monitoring context, it provides a brief



snapshot of the implementation of an intervention at a given moment, considering five dimensions:

- The relevance and quality of project design: the appropriateness of a project’s objectives to the real problems, needs and priorities of its target groups/beneficiaries and the quality of the design through which these objectives are to be reached;
- The efficiency of implementation: how well means/inputs and activities were converted into results;
- The effectiveness of the actions carried out: the contribution made by the project’s results to the achievement of its overall purpose;
- Project impact: the project’s contribution to the Overall Objective;
- Project sustainability: the likelihood of a continuation in the stream of benefits produced by the project after the period of external support has ended.

The ROM is synthetically showed in the following figures

### Evaluating Effectiveness of pilot actions

**RELEVANCE: ACHIEVEMENT OF OBJECTIVES**

Level of pilot action contribution to >>> **GENERAL OBJECTIVE** 1 2 3 4 5

Explain your answer giving reasons for the assigned score	Describe actions and provide evidence to it
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Level of pilot action contribution to >>> **SPECIFIC OBJECTIVES** 1 2 3 4 5

Explain your answer giving reasons for the assigned score	Describe actions and provide evidence to it
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**IMPACT: MOST SIGNIFICANT CHANGES**

If you consider the effects produced by the Pilot Action, which are the most significant changes observed in the local context of intervention?

Please specify the changes in three periods: at the end of the project; after short time (expectation) and long time (possible permanent changes).

Relevant changes (at the end of the project)	Relevant expected changes (short term)	Possible permanent changes (long term)
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**IMPACT: STRENGTHS, WEAKNESSES AND LESSONS LEARNED**

<p><b>1. STRENGTHS</b>            If you think about activities developed in these months, could you help us to identify the main STRENGTHS of the Pilot Action?</p>	<p>a)....            b)....            c)....</p>
<p><b>2. WEAKNESSES</b>            If you think about activities developed in these months, could you help us to identify the main WEAKNESSES of the Pilot Action?</p>	<p>a)....            b)....            c)....</p>
<p><b>3. LESSONS LEARNED</b>            What are the lessons learned that your organization brings home from the project?            What did your organization learn from the participation to the project that will be useful for future applications?</p>	<p>a)....            b)....            c)....</p>
<p><b>4. SUGGESTIONS</b>            Do you have any proposals or suggestions regarding the prosecution of the project as a whole?</p>	<p>a)....            b)....            c)....</p>

#### 5.4. Phase 4 Planning strategic actions

Strategic Action Plans (SAPs) in the **GreenerSites** project represented concrete tools to tackling complex issues in both FUA and related brownfields.

Stakeholders were continually involved and requested to collaborate to find and adopt common solutions to environmental, economic and social concerns in brownfields.

The challenge was to identify, plan and schedule the most suitable actions that, according to each stakeholders' experience, could increase the effectiveness of environmental management and economic development of the brownfield sites in the overall Functional Urban Area.

The strategic action planning process started by answering the following questions

- What is the current situation?
- What are our goals?
- How will we achieve our goals?
- How can we measure progress?

It was necessary to take into account

- the analysis of the state of the art;
- the outcomes of the pilot actions;
- the results of the consultation of stakeholders
- the contribution of the participatory processes
- and, in case of scarce resources, the impacts/effects of alternative actions



In such a complex context, the perspective of driving the overall regeneration of brownfields meant that it was crucial to engage the relevant stakeholders to develop the following STEPS:

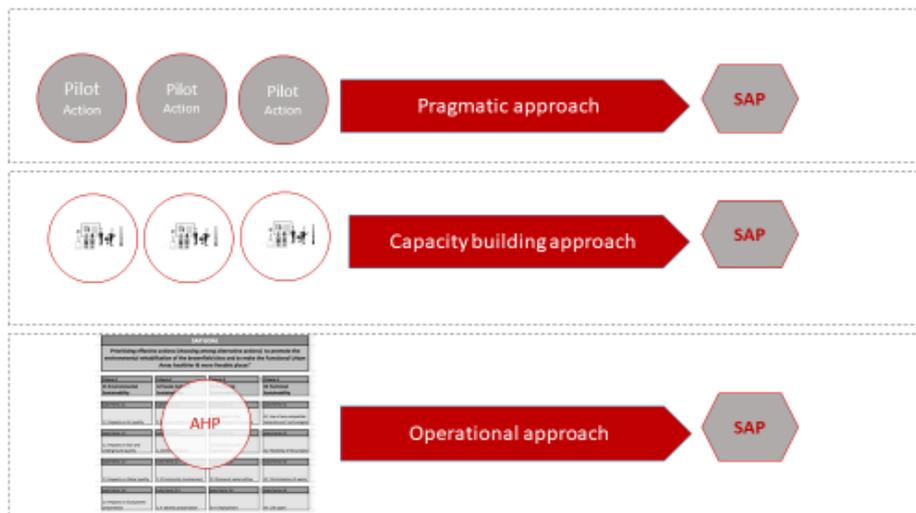
- a) *Selecting actions to be included in the SAP*
- b) *Elaborating the SAP*

A. **Selecting Actions to be included in the SAP** first required the selection of the decisional method. Assuming that it must be based on knowledge, the method adopted to indicate and decide which actions should be included in the strategic plan with a certain priority may vary.

In the **GreenerSites** project, we experimented with the following:

- Pragmatic approach: an approach based on the outcome of the pilot actions and adopted with the specific purpose of ensuring follow up and improvement;
- Capacity building approach: ensuring a continuous improvement of expertise necessary for the management of the sites and their remediation, the approach is based on human and knowledge capitals more than on structural assets;
- Operational approach: ensuring the unbiased selection of actions on the basis of a prioritization process. Among the operational methods available in literature, the AHP originally developed by Thomas L. Saaty (1977), can be applied to ranking actions within GreenerSites SAP. Actually AHP is a participatory decisional support system capable of comparing alternatives and prioritizing actions against criteria and sub-criteria with different weights in the decisional process, as described in the figure.

### Strategic Action Plan Approaches



B. **Elaborating the SAP** meant organizing the contents using a structure capable of providing targets with overall scope and relevance, a description of resource schedules and finance



and references. In the **GreenerSites** project, we adopted the following scheme organized into four main chapters.

- Introduction: including a general presentation of the considered area, the outcomes of pilot actions and experimental solutions tested; specifying the process of key stakeholders' involvement and the outcomes of consultation of local players; describing the methodological approach adopted for selecting the relevant action(s) included in the Strategic Action Plan;
- Executive summary of the action(s) strategically identified and planned for an effective management of brownfield sites;
- Detailed description of the action(s), providing details about the area of intervention, the analysis of the specific problem(s) addressed, describing the specific objectives of intervention, the players, roles and timing of activities; identifying the financing sources and detailing the implementation steps and related schedule.
- References: including external relevant documents that may be useful for a deeper understanding of the topics dealt with in the SAP.

### Strategic Action Plan Structure

Introduction	PART B (for each Action) Strategic Action n .....
Scope	Context of the Action
The context: FUA and Brownfields	Problem addressed
The participatory Process	Objectives
The methodological approach to select actions	Participatory and Management Model (who does what)
PART A Executive summary	Planning of activities (timeline)
Brief description of Strategic Action 1	Financing
Brief description of Strategic Action 2	Progress of Implementation and Monitoring
Brief description of Strategic Action 3	References
Brief description of Strategic Action n	Bibliography, Good Practices, PAs, Web Links, Annexes

#### 5.5. Phase 5 Promoting a shared governance

Establishing and developing a shared governance is a huge challenge that must be taken into account to ensure the scaling up of pilot actions, the long-term impact of the action plan and the effect of the regeneration strategy. Without the collaboration and the commitment of the interested parties, the risk of failure increases. A participatory process or a stakeholder table are not enough to establish an effective shared governance, but they are a very good starting point.

The open governance model simultaneously represents a pre-condition and an opportunity that must be undertaken in order to confront the uncertainty and complexity of brownfield



rehabilitation. It is for this reason that the **GreenerSites** project has reinforced the need for it and enabled the process, aware that it does not simply refer to institutional sustainability, but to the overall management process.

The process developed in the **GreenerSites** project to build an effective shared governance included the following **STEPS**:

- a) *Promoting a Memorandum of Understanding to strengthen stakeholders' commitment*
- b) *Defining procedures for governance development*

A. **Promoting a Memorandum of Understanding** represented a way of ensuring continuity to PA results, scaling up related outputs and developing the SAP.

It is important to engage stakeholders in sharing follow-up measures before arranging the MoU.

The stakeholders' tables, activated during the preliminary stages of the project, were kept active and effectively engaged both in the implementation and evaluation phases in order to strengthen the stakeholders' commitment.

A common understanding of the environmental concerns, a mutual acknowledgement of socio-economic issues and a joint recognition of gaps allowed interested partners to sign the Memorandum of Understanding and agree for a long-term cooperation in the brownfield regeneration process also at FUA level.

B. **Defining procedures for governance development** was a pre-condition to supporting the long-term regeneration process. A joint arrangement of specific procedures and measures was recommended in order to reinforce the institutional, economic, social and environmental overall sustainability.

Procedures have been shared and agreed with different governance levels, committed to the drawing up of specific financial strategies to ensure necessary resources to brownfield redevelopment and to test innovative technical solutions to environmental problems.



## 5.6. The process in a “snapshot”

The following figure provides a snapshot of the approach followed at each stage of the GreenerSites process.





**A. List of project deliverables available on request**

<b>ID</b>	<b>title</b>	<b>brief description</b>
Deliverable T1.1.4	Assessment of the environmental status of brownfields in 9 FUAs	Each partner elaborated a detailed analysis of the environmental status of the involved brownfields
Deliverable T1.1.5	Assessment of the Socio-economic status of brownfields in 9 FUAs	Each partner elaborated a detailed analysis of the socio-economic status of the involved brownfields
Deliverable T1.1.6	Assessment of infrastructure, logistics and legal constraints of brownfields in 9 FUAs	Each partner elaborated a detailed analysis of the status of the infrastructures and governance system in the involved brownfields
Deliverable T1.2.3	Geo-Information Tool with focus on brownfield regeneration	The GreenerSites gis tool is running on the partners' servers
Deliverable T1.3.3	Guidelines for SAP in FUAs to be presented to stakeholders	Guidelines for the elaboration of the Strategic action plans
Deliverable T2.1.12	Local training evaluation report	Evaluation and results from the local trainings
D.T2.1.2	Training material for local trainings	GIS tool manual
Deliverable T2.2.4	Training material on sustainability of pilot actions	Materials from the transnational training on sustainability
Deliverable D.T3.1.5, 3.2.4, 3.3.6, 3.4.6, 3.5.6, 3.6.6, 3.7.7, 3.8.7, 3.9.7, 3.10.5, 3.11.6	Pilot Action reports	A detailed report from each of the 11 pilot actions
Deliverable D.T3.12.5	Report on ex-post transnational evaluation	Conclusions on ongoing evaluation of pilot action and ex-post transnational assessment of pilot results
Deliverable T3.13.3,4,5,6	Collection of Economic, institutional, environmental, social sustainability measures	
D.T4.3.1	Catalogue of lesson learnt from the project	A collection of lessons learnt and best practices developed within the project
Deliverable C.3.4	Study Visits short Stories	A report from the study visits
Deliverable D.T4.1.3	9 strategic Action Plans	Contents of each strategic action plan developed in the 9 FUAs