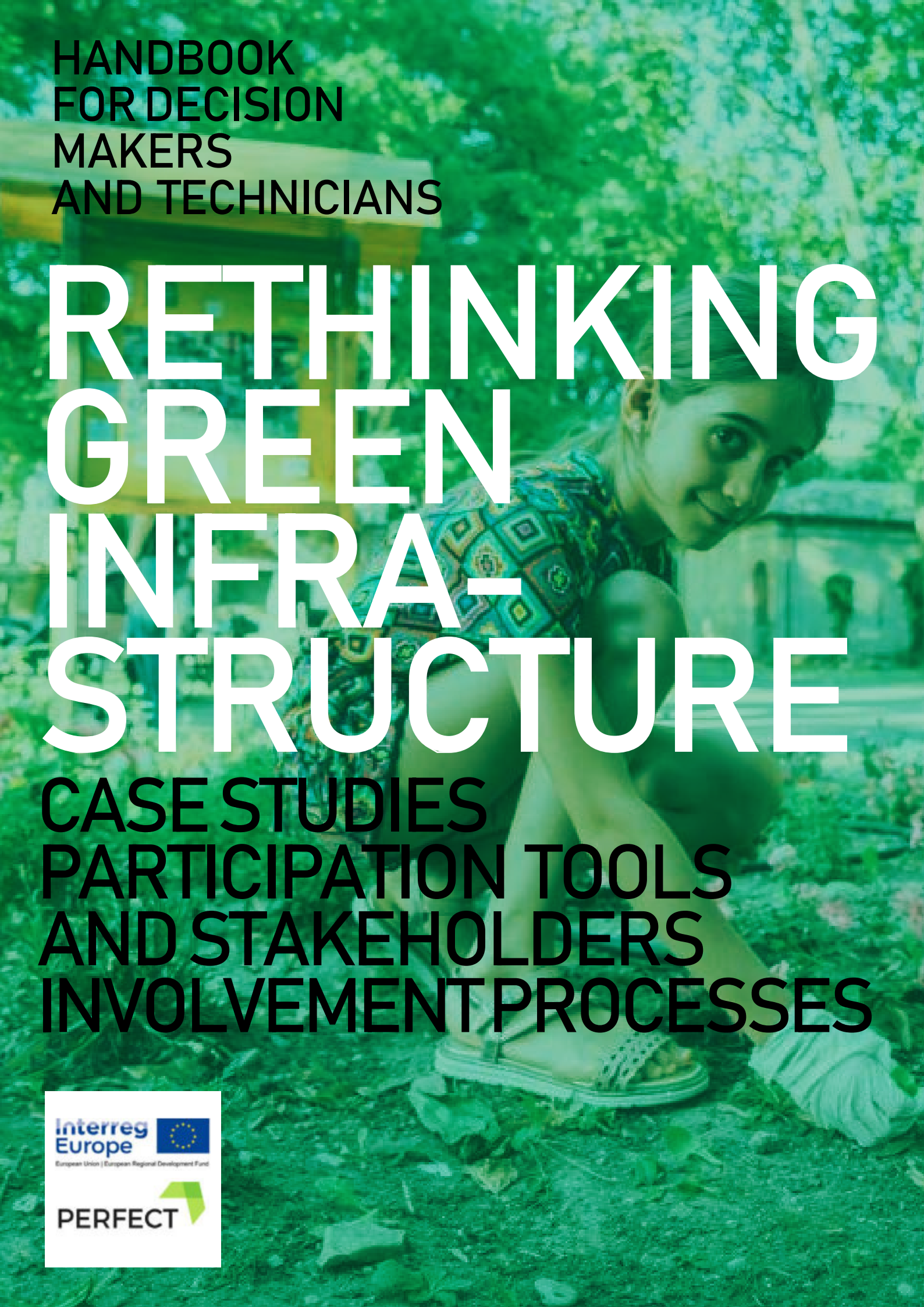
HANDBOOK FOR DECISION MAKERS AND TECHNICIANS

RETHINKING GREEN INFRA-STRUCTURE

CASE STUDIES PARTICIPATION TOOLS AND STAKEHOLDERS INVOLVEMENT PROCESSES



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PERFECT

RETHINKING GREEN INFRA-STRUCTURE

CASE STUDIES PARTICIPATION TOOLS AND STAKEHOLDERS INVOLVEMENT PROCESSES

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RETHINKING
GREEN
INFRASTRUCTURE

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INDEX

introduction

ABOUT PERFECT

The PERFECT project will demonstrate how the multiple uses of green infrastructure can provide social, economic and environmental benefits; and it will raise awareness of this potential, to influence the policy-making process and to encourage greater investment in green infrastructure.

PERFECT aims to:

- spread awareness of the value of green infrastructure for the jobs and growth agenda among a wider audience;
- identify transferable good practice;
- improve investment and stewardship by engaging managing authorities and increasing the professional capacity of key stakeholders in delivering new projects;
- help make places more economically, socially and environmentally viable by developing action plans to take advantage of the multiple benefits of strategic investment in green infrastructure.

The PERFECT project will work to identify the multiple benefits of green infrastructure investment through EU Structural Funds Operational Programmes and other policy instruments, in order to help formulate holistic and integrated approaches to the protection and development of the natural heritage.

The PERFECT key objectives:

1. To identify and analyse good practice in the multiuse of green infrastructure – such as using green transport corridors in Ferrara to boost local business and create economic growth; and the maximisation of the health and climate change adaptation benefits of natural heritage demonstrated by the Green Net in Graz.
2. To fully engage managing authorities on the socio-economic benefits of green infrastructure and influence new projects and improve the governance of policy instruments – as in Amsterdam's use of green infrastructure to drive social innovation and inclusivity and so reduce socio-economic and health divides.
3. To increase the professional capacity of key stakeholders in delivering new projects – as in the integration of environmental issues into the devolution of assets to a local level in Cornwall.
4. To develop action plans focusing on policy change to influence strategic investment in green infrastructure to take advantage of its multiple benefits.

CO-DESIGNAND PARTICIPATION PROCESSES

SIMULATION-GAMES

TRAINING TOOLS

URBAN PLANS AND URBAN REGENERATION STRATEGIES

RETHINKING GREEN INFRASTRUCTURE

Rethinking Green Infrastructure is a handbook for administrators and technicians that illustrates good practices and tools for community involvement in relation to the role of green and trees in urban areas.

The manual is structured in four sections:

1. CO-DESIGN AND PARTICIPATION PROCESSES. The section illustrates the regulations and public space maintenance practices of the citizens of Ferrara (IT) promoted by Urban Center and the participatory design labs organized for the inhabitants of Rimini (IT) on the environmental recovery of the former In.Cal System quarry, an area of 37 hectares returned to the city after years of exploitation;
2. TRAINING TOOLS. It illustrates the activities of the Portland Depave Association (USA) that started de-paving and gardening actions in urban contexts and developed its own method published in 'The guide to Freeing your soyl' that inspired other green communities in the world. It also presents the action of the Trees Group Action Design London (UK), which carries on researches on green infrastructure and edits a series of guides designed and written in collaborative ways, including 'Trees in Hard Landscape';
3. SIMULATION GAMES. The section illustrates the Planning Game case study promoted by the TCPA of London (UK), a role-playing game in which the participants compete in conceiving ideal cities with trees and urban green, and the REBUS case study, a role-playing game promoted by the Emilia-Romagna Region (IT) in which cities and professionals compete in redesigning the public spaces of existing neighborhoods to integrate nature based solutions to combat climate change;
4. URBAN PLANS AND URBAN REGENERATION STRATEGIES. It illustrates the urban, environmental and social strategy set up by the Municipality of Medicina (IT) - to re-qualify the entire city centre along the canal that crosses the town and to involve residents in actions of engagement and care of green areas and public spaces, and public debate on infrastructural interventions with greater impact on the canal - and the interactive web platform to facilitate the participatory process of the Green Infrastructure Strategy for the Ljubljana Urban Region (SLO).

INVOLVEMENT AND PARTICIPATION METHODOLOGIES

The specific methodologies employed to address the different phases of the community involvement processes as well as the particular collaborative ways used to develop working

group tools emerge from the analysis of the case studies.

- The mapping of stakeholders and needs is applied to participation processes, as a first action to identify the participants or to map, even digitally, the ways of perceiving or to use and live the city.
- Semi-structured interviews and questionnaires are widely used, both in the initial stages of complex participation processes, and for defining instruments, manuals, publications and transdisciplinary training courses.
- Focus-groups are used during small homogeneous groups confrontations, in the initial stages of a process or in work meetings to fine tune specific aspects of regulations, develop a context analysis of an urban area with residents, define the details of a civic action of an action group or set up a group work.
- The Open Space Technology, World Café and EASW methodology are used during meetings and workshops in which participants have to be stimulated in the construction of projects, ideas and visions.
- Role-playing games are used as training and learning tools in groups with heterogeneous skills for the elaboration of strategies and projects.
- Co-design is employed in groups of technicians and citizens who, in a short time, have the task to develop complex projects based on the needs of the users or on a precise assignment.
- Consensus building is used as a way of managing conflicts.
- Public debate is used in the context of important works and infrastructures to define with the population the projects improvements and the compensation interventions.
- Planning for real is used to design areas and spaces with citizens.
- Cooperation pacts and citizens' agreements are instead useful to sign precise commitments between administration and citizens for the care of common goods and the assumption of responsibility.

The use of appropriate tools and techniques in relation to the objectives and challenges of the confrontation and participation processes is in fact useful to better manage the groups debate and to stimulate their creativity and ability to explore new solutions.

PROCESS TIME FRAME AND PHASES

The time factor also plays a fundamental role during the debate. In fact, the cases show that, in order to determine complex solutions, it takes time and many scheduled appointments, so that

the ideas could converge and mature progressively.
In the case of complex and structured processes, a time frame of 5-6 months with 5-6 meetings seams suitable for confrontation, and 1 year for experimentation, where foreseen.
In the case of more targeted actions, 2-3 months of work and few meetings may be sufficient.
For each process it is essential to develop the engagement phases and time frame, decide methods and working time, sharing them with citizens and participants. This relatively short period of time is an investment that allows administrations to share objectives and visions and to proceed more quickly in the implementation of transformation processes and projects, avoiding the creation of opposing committees and groups.
In terms of phases, it is possible, in principle, to identify four: mapping and listening; creative discussion; synthesis and commitments assumption; experimentation.

HETEROGENEITY OF GROUPS AND SKILLS

A very important aspect, clearly highlighted by the case, is the heterogeneity of groups and skills within the processes. Heterogeneity is the ingredient that often determines - not alone - the quality of proposals and ideas.
In the start-up phase of a process, the stakeholders and interests at stake are usually mapped, pros and cons. This activity is essential to understand who to engage without forgetting to include every point of view. Accepting and addressing all points of view, even the opposed ones, allows groups to deepen every aspect of a process and guarantees credibility to the Administration.
The heterogeneous groups with diversified skills then favour a creative discussion environment and the elaboration of original solutions that a single competence could not focus. The heterogeneity of the groups allows the many skills at stake to express a new intelligence, the group one, which is not the simple sum of the individual skills.

EXPERIMENTING

'Doing' is one aspect of great interest to communities.
More and more often the participation processes, beyond discussion, converge in actions and communities of practice. This is very evident in the cases of Urban Center, Depave, TDAG and REBUS.
In the processes involving people, if the atmosphere is empathic and creative, the energy is so strong that it pushes people to activate themselves, in groups of action.
This aspect is extremely positive and it is possible, from the beginning of a process, to plan

measures to support the spontaneous creation of groups.
Experimenting is the most effective way for individuals and communities to learn and to trigger chain-contamination processes.

COMMITMENTS

In order to be believable, a participation and confrontation process has to be able to affect the final choices that will be implemented.
It is a delicate issue, in which the Administration plays all its credibility. It is Therefore it is very important to define and clarify the time frame and type of participation and the commitments by all the parties involved.
The role of the facilitator or the coordination group is extremely relevant, both to determine the phases of the process and the techniques suitable for the challenge, and because he/she will have the role of mediator and guarantor among the parties throughout the process. As the name says itself, the facilitator eases and facilitates the discussion - giving all stakeholders the condition to express their point of view - and creates the conditions for a group to arrive at a collective proposal, as shared as possible. ■

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CO-DESIGN AND PARTICIPA-TION PROCESSES

1

LOCATION
Italy, Ferrara

INHABITANTS
more than 132,000

PROMOTER
Municipality of Ferrara

PARTNER
Department of Humanistic Studies of the University of Ferrara
Italian Urban Center Network
Emilia Romagna Region – Participation Department
Informal Network of citizens
Urban Center Ferrara

STAKEHOLDERS
40 groups (mainly informal) actively participate to projects
15,000 monthly views through web channels

PARTICIPATION METHODOLOGIES
Focus-group
European Awareness Workshop scenario
Open Space Technology
Exploratory walks

TIMEFRAME
2011 Service activation
2012 Participation to regional call to support participatory processes
2014 Process for the elaboration of common goods participated management
2016 Revision process and procedures and regulations update
2018 Headquarters opening

DATA
1 new regulation
- Citizens participation in the government and management of common goods
2 updated regulations
-City regulation for the participatory management of public green areas -
Regulation for popular forms of participation to the local Administration
2 rules introduced – 'Far Filò' -Regulation for the occupation of public land Art. 9/bis
Street Shows - Urban Police Regulations - Art. 40
75 mapped communities
2 training courses activated
17 agreements signed
6 calls won

COSTS
from 2012 to 2019
1) human resources and freelances: 70,000 euro
2) funding to support micro interventions on public space: 9,000 euro

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URBAN CENTER FERRARA
service for local civic communities, for the collective re-appropriation and self-governance of living places

OVERVIEW

The Urban Center of the City of Ferrara is a public service in support of local civic participation initiatives for the improvement of communities and places. It consists of a team of technicians from the public administration and a network of citizens that was established over time. Its objective is to build the conditions for local decision-making processes, and in particular urban and territorial policies, to be more open to the communities living in Ferrara.
Its conception dates back to 2010, it is intended as a fluid and flexible project of the Territorial Planning Department and the Mayor's Cabinet, not characterised by a rigid organizational structure, to move with agility between the various offices of the Municipality and on the territories with citizens; it developed its first activities thanks to regional calls for the promotion of participatory processes, and developed without a specific budget and structured staff.

OBJECTIVES

Public service is an enabling device for the creation of autonomy and the consolidation of the self-organization capacities of citizens' groups, a research-action activity that generates new forms of knowledge, representation and relationship with the territory thanks to the acquisition of awareness, surfacing, acknowledgment, strengthening and networking of local civic communities.
The type of relationship between the workers of the centre and the citizens is not comparable to the traditional interaction with the city help desk, because it is based on careful attention and on the development of stable relationships of mutual cooperation, with an attitude of administrative empathy, as defined by the citizens themselves. In other words, it is not only a matter of considering the effectiveness of the support action itself, which has necessarily to respect the people places and life times (schedules consistent with the citizens free-time, ongoing study visits and meetings on the territories in a logic of proximity, neighborhood walks and field observations...), but to look at the very substance of the action that makes the technician act as a professional and a citizen. This attitude implicates an empathic listening and identification relationship, which results for example in: simple and non-formal relationships, mutual self-critique, acquisition of responsibility beyond specific skills.

1. Let's adopt a flowerbed, June 2018 (Photo by Andrea Verzola)

2. Mercilessly City, April 2018 (photo by Andrea Verzola)
3. City lab Workshop of Knowledge, April 2018 (photo by Andrea Verzola)
4. Urban Center Network meeting, January 2016 (photo by Dumitru Grubii)
5. Final Meeting of My Ferrara Project, June 2016 (photo by Dumitru Grubii)
6–7. City lab Workshop of Knowledge, April 2018 (photos by Andrea Verzola)

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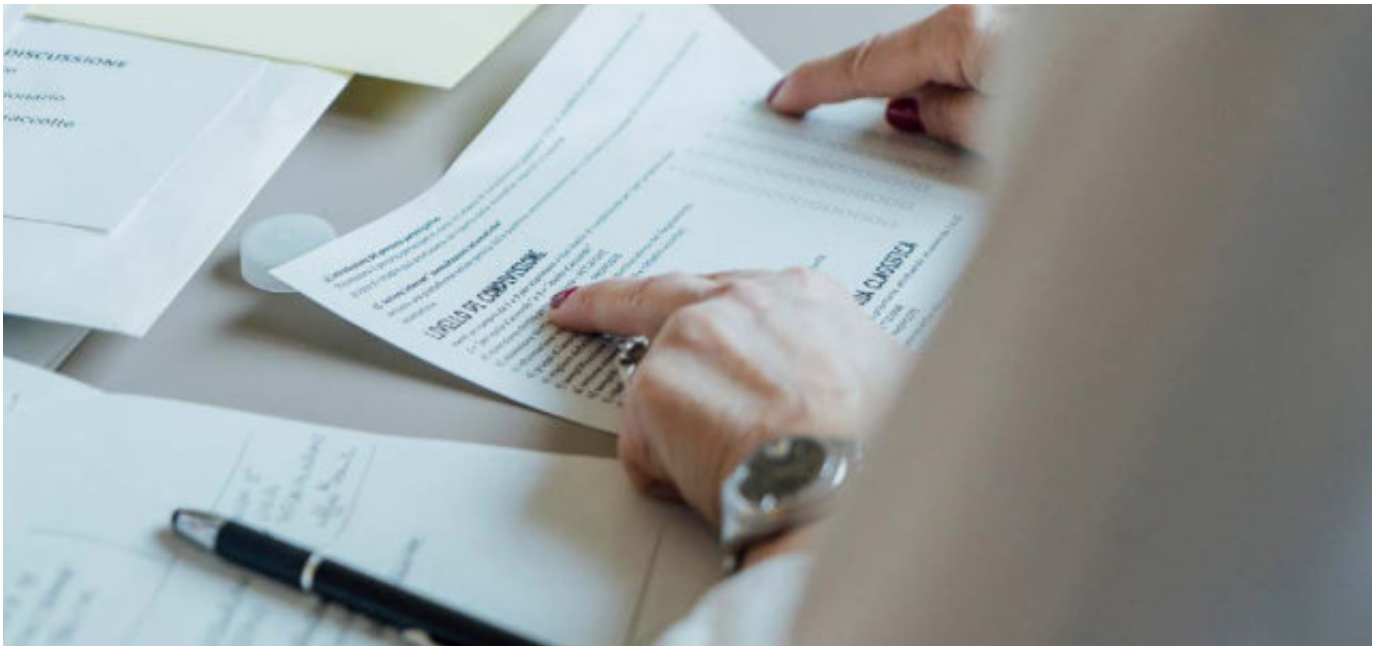

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CONFLICTS

The main conflicts revolve around the traditional difficulty for the local authority to develop effective public cross-sectoral neighbourhood policies; if on the one hand a fluid service allowed to reach some initially unexpected results, on the other hand it deprived the project of the necessary authority to address the growing demands of citizens and the implementation of some of the changes achieved. At the beginning, there were many misunderstandings also with the citizens, who interacted with the center replicating the traditional ways to communicate with the city offices opened to the public: request for contributions, proposals to be taken care by the institution, reports and complaints.
In time, however, the involved citizens themselves recognized and understood the real potential of the Centre, now claiming its membership and existence.

8. City lab Workshop of Knowledge, April 2018, April 2018 (photo by Andrea Verzola)
9-10. Siepilandia / Land of hedges, June 2018 (Photo by Andrea Verzola)
11. Street Party in Via Zemola, May 2018 (photo by Andrea Verzola)

METHODOLOGY AND FIELDS OF OPERATION

The main areas of works are three:

1. the gradual revision of municipal regulations and procedures to encourage and not hinder local civic communities and the effective inclusion of citizens in decision-making procedures;
2. the development of a collective learning process on participatory democracy through the construction of communities, the introduction of practices in the territories and the organization of wide range moments of dialogical-deliberative confrontation among citizens;
3. training and awareness-raising activities for the creation of new knowledge and practical know-how.

ACTIONS ON PUBLIC SPACE AND GREEN INFRASTRUCTURE

The relationship between civic participation and public space design translated over the years into the consolidation of a privileged collaboration between the Urban Center and the City Landscape Office. The green areas are themselves suitable, more than any other public space, to direct and unmediated transformation by communities. For this reason, in a logic of gradual increase of complexity and with the involvement of expert knowledge, the Center bet on the possibility to consider green spaces as experimental territories for the collective restoration of living places, the creation of community and cooperative learning networks. From 2016, about twenty interventions on public space were started by citizens and made possible thanks to new tools introduced in the city regulation. Among these, four cases

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12. Street Party in Via Zemola, May 2016 (photo by Dumitru Grubii)
13. Siepilandia / Land of hedges, June 2018 (Photo by Andrea Verzola)
14. Recyclable Party, May 2018 (photo by Andrea Verzola)
15. Let's adopt a flowerbed , November 2016 (photo by Dumitru Grubii)
16-17. Parkour Flowlines, April 2016 (photo by Dumitru Grubii)

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18-20. Cultivating public space, May-June 2018 (Photo by Ilenia Crema)
21. Krasnopark, poster at th entrance of garden
22-24 Cultivating public space, May-june 2018 (photo by Ilenia Crema)

concern the redesign of underused neighborhood green areas:

- 'Krasnopark', where an informal network of citizens redefines the management rules of a large public park with the concept of making it an area for children free play and open-air education;
- the transformation of prefab wood-house into a small library, self-managed by the neighbors in the so called 'ParcoLibro/BookPark';
- the demanding restoration and maintenance of a public wooded area with didactic functions by a cooperative of inhabitants in the Barco neighbourhood;
- 'Let's adopt a flowerbed', where children together with teachers, grandparents and parents, a neighbourhood committee and a group of young asylum seekers carried on an active citizenship school project, with the maintenance of a large flowerbed in a city park as one of the main actions.

The experiences carried on demonstrate the important connection between the self-construction and education themes, not only by considering the connections generated between citizens-gardeners and schools, but for the need to train citizens themselves in relation to issues such as irrigation, maintenance and quality of the adopted solutions over time .

If, at the beginning, it was decided to leave free space to the civic energies preferring the interventions social value rather then their effectiveness, in 2018 the Center tried to answer this question of competences by activating 'Cultivating the Public Space', a series of lectures and open meetings for citizens on urban green and climate change.

The course – started thanks to the collaboration with the Perfect Project, the Center for Sustainability Education of Ferrara, the REBUS group of the Emilia-Romagna Region and the SOS4Life project – was consisted of visits and frontal lessons with a high theoretical content. The teachers – landscape designers, urban planners, gardeners, pedologists and environmental experts - gave lectures about the green infrastructure ecosystem services and soil consumption, adaptation and mitigation to climate change, practices implemented by green communities to restore nature in the city, and vegetation with low-maintenance and reduced water requirements. The lectures are now being followed by experimental workshops; a continuation is desirable - with the involvement of local experts - for the creation of cooperative networks and local chains about the use and transformation of public areas with an ecosystem-based approach.

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CO-DESIGN AND PARTECIPATION

25. ParcoLibro / BookPark, May 2018 (photo by Andrea Verzola)
26. A table in a park, June 2016 (photo by Dumitru Grubii)
27. Mercilessly City, April 2018 (photo by Andrea Verzola)

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OUTCOMES, IMPACTS AND REPLICABILITY

The development of a service similar to the Urban Center Ferrara can lead to the creation of a public system of representation and territorial organization, which envisions local civic energies as important reference points for the development of cross-sectoral policies and services, the management and transformation of public space and the creation and strengthening of green infrastructure.

The conditions necessary for its development can be:

- establishment of a civic structure for the development of participatory democracy and common goods self-governance forms, with expert personnel, spaces and tools suitable for the organization of workshops and recreational activities, debates and field activities, communication and public information;
- establishment of a working unit for the review, update and application of public regulations and procedures according to the analyses and the results elaborated with the local civic communities (e.g.: new regulations for free use of open public space for convivial and artistic initiatives, self-declarations and arrangements for the care and self-governance of common goods...);
- acknowledgment and support of the citizens self-organized activities for the public space restoration and re-use, in particular green infrastructure, supporting self-sustaining growth and awareness acquisition;
- integration and comparison between contextual and expert knowledge through the organization of training courses and collective learning, able to transform individual needs and experiments in city co-design activities on public space.

1

LOCATION
Municipality of Rimini, Italy
Along the Marecchia river

INHABITANTS
148,000

PROMOTER
Municipality of Rimini,
Province of Rimini

MANAGER
anthea

MUNICIPALITY OF RIMINI
Domenico Bartolucci
Nicola Bastianelli
Elena Favi

PROVINCE OF RIMINI
Giovannino Vittori

STAKEHOLDERS INVOLVED
100 citizens
9 associations
1 museum
1 school

PARTICIPATION AND INVOLVEMENT METHODOLOGIES
focus-group
exploratory walk
open space technology
planning for real
agreement signing

DIMENSIONS
37 hectares in total
20 hectares of lakes
13 hectares of forestation
4 hectares of pioneer vegetation
3 km of paths
5 entrances
1 didactic site

TIMEFRAME
2010/2011 - 1st co-design and participation workshop for the environmental and reuse project and for the site management
2011/2012 - Preliminary, definitive and executive design
2012 - 2nd co-design workshop about the didactic path
2013/2014 – construction site
2015/2018 - educational activities

COSTS
350,000 euro

PARTICIPATION PROCESS MANAGEMENT
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SOURCE
Municipality of Rimini

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THE FORMER IN.CAL. SYSTEM PARK ALONG THE MARECCHIA RIVER
co-design and partipation workshop

OVERVIEW

The former IN.CAL.SYSTEM quarry natural park finds place just a few kilometres from Rimini city centre. The area, located along the Marecchia river, between S.Martino dei Molini and Spadarolo, develops on approximately 37 ha, only a 20 minutes bike-ride from the city. The site, characterized by the presence of two artificial lakes originated from mining activities and located nearby the Marecchia river, takes its name – In Cal System – from the company that for twenty years extracted sand and gravel used in building construction.

In the 80s the gravel pit reached the exhaustion of the excavation level and, after the completion of the works defined in the recovery plan, returned to the municipality of Rimini. With the abandonment of the mining activities, the excavation areas were filled with water, forming two lakes. Since the late 80s, the area remained enclosed by fences and not used or accessible, except for two reforestation projects carried out by the Province of Rimini.

Thanks to the presence of water and the continuous fence along the entire perimeter, in just 20 years the area has been recolonized by native flora and fauna and since 2009 it is part of the Natura 2000 Sites of Community Importance SCI of Torriana-Montebello-Marecchia river. From 2009 to 2010 the municipality of Rimini started a process to involve the local community and an environmental and landscape valorization project, in order to make the area accessible by mankind, recognizing the site's didactic and environmental vocation to study flora and fauna.

OBJECTIVES AND CONFLICTS

The start of the environmental and landscape valorization project generated immediately concern among the many local environmental associations. The most widespread fears were mainly the compatibility between the environmental and ecological role of the renaturalized area with a recreational use. These fears fed the people's distrust of the administration and technicians involved in the project.

For these reasons, the community involvement process was particularly complex, especially in the initial phase of confrontation, that was characterized by different tense moments and lack of willingness to collaborate in a shared project.

The municipality started a listening process and a co-design workshop pursuing two main objectives: on the one hand the sharing of the project for the physical transformation and the safety interventions on the site, and on the other handthe definition of a shared regulation for the use of area, compatible with its ecological, environmental and cultural values.

1. Eduational activities to In.Cal.System (photo E. Farnè)

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WORKING AND PARTICIPATORY METHODOLOGIES

The listening process highlighted the fears and clarified the positions of the parties involved, coming to share common values for the protection of the area.

The co-design workshop, structured through a series of regular meetings, allowed to examine the technical aspects of the project, gradually dissolving the conflicting points.

Different participatory techniques were applied: 'focus-groups' - to concentrate on conflicts and common values- 'open space technology' - to define the vision, the proposals for new functions and the regulation of the area - and 'planning for real' – to study the technical aspects for making the site safe, and the stages of environmental education process.

The workshops were coordinated by the administration thanks to professional moderators with experience in both participatory design and environmental and landscape design. This choice allowed economies of scale in the economic investment and a more rapid elaboration of the proposals among citizens, designers and administration.

OUTCOMES, IMPACTS AND REPLICABILITY

The participatory activities took place in two laboratories between 2010 and 2011 (one of six months and one of three) and the summary documents of the area were subscribed and signed by all participants. The executive design and works took place between 2012 and 2014, returning the site to the citizens. Currently local associations are developing experimental educational activities in the area. The proposals emerged during the meetings determined the final project of the area:

1. modifying the approach of some interventions of forestation, consolidation of the lake shores and access to the area, favoring where possible the use of natural engineering techniques and precision technologies;
2. defining two sub-areas with different uses, one with free excess for a wider public, one with controlled access with a greater naturalistic vocation.

The process of the former quarry shows that conflicts about the transformation of green areas can be dealt under certain circumstances:

1. participation has to be able to affect the transformation decisions and it is necessary that the administration is prepared to acknowledge the results of the confrontation with the community;
2. it is imperative that the process is structured in phases and carried on with the support of moderators and facilitators as well as technicians, so that conflicts and divergent positions could be tackled and a complex shared solution could mature. ■

2. The mail lake of the In.Cal.System park (photo C. Morri)
3. Logo of the participation process
4. Study visit to the lakes with citizens and local associations (photo E. Farnè)
5. Flora (photo F. Salbitano)

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COSA FARE DELLA CAVA?
PROGETTO PARTECIPATIVO RECUPERO IN.CAL.SYSTEM

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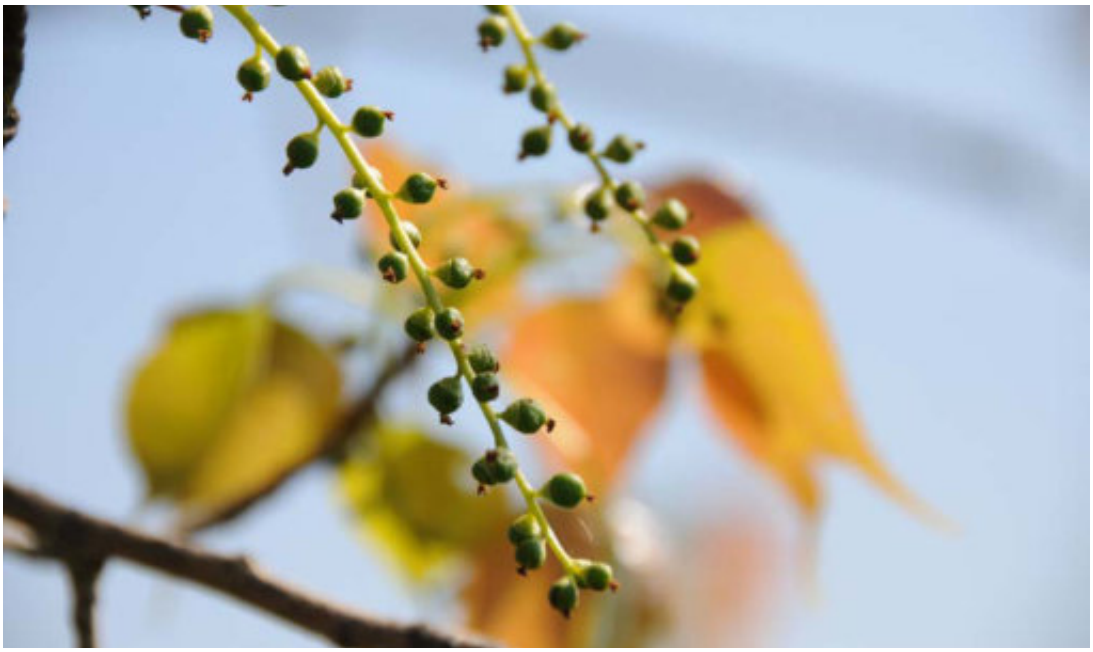

6-7. Co-design workshop and tools (photo E. Farnè)
8. Access panels (photo C. Morri)
9. New paths to In.Cal.System (photo F. Salbitano)
10. Flora (foto F. Salbitano)
11. Design path of the wet area (by T. Tappi)

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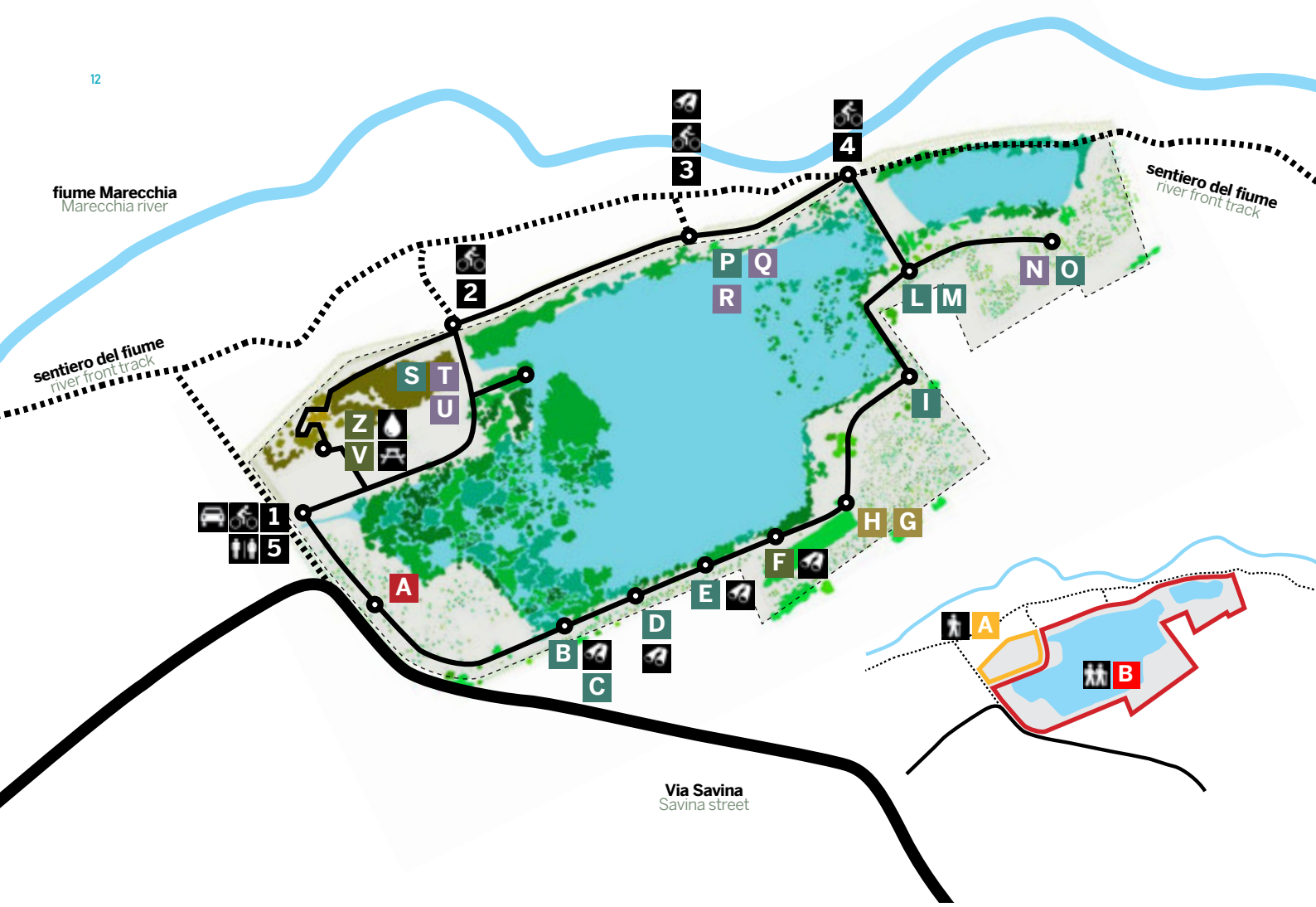

12.The ex-In.Cal. System quarry natural park has five entrances, two from via Savina and three from the river, two of which are actual access points and the third a panoramic viewpoint.
The educational itinerary is designed for pedestrians and has a total duration of about two hours and thirty minutes. Along the pathway different issues are tackled, in relation to flora, fauna, water and history of the area under the archeological, agricultural and productive point of view. The itinerary, with stops along the tracks, has twenty-one illustrated stations addressed to an adult audience as well as to children and schools. Recalling the human being evolutionary phases, the signs of each station provide contents that, from the bottom upwards, illustrate educational aspects up to technical and scientific information, stimulating public interaction and observation of the surrounding environment.
The two areas of the park, A and B, can be enjoyed together or independently. In the A area, in addition to the pathway, it's possible to organize workshops or temporary educational activities on flora, fauna or agriculture, but also create small handicrafts using clay, natural colours, soil and water. In the B area, the most delicate from a naturalistic point of view and equipped with services, guided tours are organized in prearranged days and hours, to be agreed with the managing authority responsible for the area. 13-15. Educational activities 'A piccoli passi' (2017-2018) to In.Cal. System. (photos L. Conti, C.Domizi)

1 **Ingresso 1 Accesso libero dalla Via Savina**
Entrance 1 Free access from via Savina

2 **Ingresso 2 Accesso libero dal sentiero delfiume**
Entrance 2 Free access from the river

3 **Ingresso 3 Ingresso al belvedere**
Entrance 3 Panoramic viewpoint

4 **Ingresso 4 Accesso controllato dal fiume**
Entrance 4 Controlled access from the river

5 **Ingresso 5 Accesso controllato dalla Via Savina**
Entrance 5 Controlled access from via Savina

Parcheggio biciclette
Bike parking

Parcheggio automobili e scuola bus
Parking cars and school buses

Servizi igienici
Toilets

Area didattica
Educational area

Punti di osservazione
Observation points

Punto acqua
Water point

Sentiero del fiume
River front track

Via Savina
Via Savina

Fiume Marecchia
Marecchia river

Area In.Cal.System
In.Cal.System area

A **Zona A Fruizione libera ad accesso pedonale**
Zone A Free access for pedestrians

B **Zona B Fruizione libera ad accesso pedonale su accompagnamento, attrezzata con servizi e con attrezzature e percorsi didattico-fruitivi**
Zone B Free access for pedestrians with guides, accessibility to facilities, services and educational itineraries

Archeologia
Archeology

Animali
Animals

Vegetazione
Vegetation

Agricoltura
Agriculture

Paesaggio
Landscape

Saliceto
Willows woodland

Canneto lungo il lago
Reeds on the lake

Vegetazione acquatica
Hygrophilous vegetation

Arbusti sul fiume
Shrubbery on the river

Forestazione
Reforestation

Vigneto
Vineyard

Prato
Lawn

A **Archeologia** Archeology
B **Garzetta** Little egret
C **Tuffetto** Grebe
D **Rana** Frog
E **Tritone** Triturus
F **Canneto** Reeds
G **Vigneto** Vineyard
H **Forestazione** Reforestation
I **Capriolo** Roe deer
L **Habitat del lago** Lake habitat
M **Habitat di forestazione** Woodland habitat
N **Cava e argilla** Gravel pit and clay
O **Raganella** Treefrog
P **Poiana** Buzzard
Q **Profilo dei monti** Mountains skyline
R **Fiume Marecchia** River
S **Libellula** Dragonfly
T **Storia della cava** Mine History
U **Valle del Marecchia** Marecchia rivervalley
V **Saliceto** Willows woodland
Z **Prato e fasi evolutive della flora**
Lawn and flora evolutionary phases

13

14

15

CO-DESIGN AND PARTECIPATION

34

SIMULA-
TION
GAMES

1

PROMOTER
TCPA Town and Country Planning Association / London

PARTNER
Cornwall Council

STAKEHOLDERS INVOLVED
Politicians and Senior Officers from Cornwall Council
Local community groups

STAKEHOLDERS INVOLVEMENT METHODS
Game-simulation

TIMEFRAME
2018 – ongoing

RESOURCES
Games free to use.
Resources needed to organise training, case studies, develop questions, facilitation and site visits.

STAFF
Partner staff needed for facilitation

SOURCES
bit.ly/stakeholder-awareness-raising-of-multi-value-of-green-infrastructure

CONTACT
jessica.fieth@tcpa.org.uk

PLANNING GAME
simulation-game on the multifunctional role of green infrastructure addressed to the stakeholders of decision-making processes

OVERVIEW

The awareness-raising activities were developed as a series of high-level challenges to inform decision-makers of the local benefits of multi-functional GI.

Joint delivery of new GI projects relies on inter-departmental coordination and political support; this GP tackled how to raise awareness of the value of multi-use GI with politicians and stakeholders from different professions with mixed levels of knowledge.

OBJECTIVES AND CONFLICTS

New techniques for discussion and group working were used during this two-day event including a planning 'game', a challenge game, expert presentations and site visits. This mix of activities stimulated discussion and broke down professional barriers.

- Day 1 examined how Cornwall Council and stakeholders plan, provide and manage GI;
- Day 2 took place at the proposed West Carclaze Garden Village, with highway and drainage adoption teams, plus peer support from Austria and the Netherlands to help examine practical changes needed to the way that Cornwall plans, provides and adapts GI.

WORKING AND PARTICIPATORY METHODOLOGIES

The GI game, developed by the TCPA, gets participants to lay out images of a typical town centre and consider how GI can affect, say, flooding, access, or mobility by adding/removing/moving cards to improve a local area. Challenge cards are sheets of simple questions and participants are allowed 5 minutes to call out their responses. This means that no single view or person dominates.

Both techniques are non-technical and can be used across a wide audience. They can be used separately but work better when used together.

The technique is non-technical and not specific to any particular regulatory system and can therefore be adapted for use in other localities very easily.

1. Game Session (photo TCPA Town Planning Association)

OUTCOMES, IMPACTS AND REPLICABILITY

Engaging participants from different backgrounds challenged silo thinking and stimulated debate of GI uses, solutions and opportunities. This has led to the drafting of new policy advice and more rounded use of existing Local Policy, paving the way for improved policy making in the revision of the plan. The exercises have stimulated debate in Cornwall, broadening the imagination of decision makers/stakeholders.

The GI game has already been transferred successfully to Perfect partners in Slovakia and Amsterdam, with Graz and Ljubljana interested to develop the cards to explore new GI concepts with politicians and communities.

Across Europe, stakeholders, communities and politicians need to work together to find solutions to climate impacts and this approach can break down communication barriers, build confidences and find solutions through consensus from participants without an expert background.

The game has no written content, it is all images or simple statements/provacations which can be changed to suit the audience. It is therefore easily adaptable for the local socio-economic-environmental considerations as well as site specific challenges in any region.

2

PLANNING GAME / INSTRUCTIONS

Stage 1 - 15 minutes

1. Place the four Core Cards in a row on the table - the istoric centre, high street, bus and train station, and social housing cards, as shown in the diagram

2. Add the two Barrier Cards (busy road and railaway line) to the line-up, where it seems realistic
3. Build up the town by arranging the remainder of the cards around the town centre. Discuss where each card should go and why.

Stage 2 - 15 minutes

4. Take the Green Circle labelled 'Green Roof' and place it onto your town where it has the most positive impact on these three factors:
   - Succesful economic development;
   - Improved health and well-being;
   - Strengthened community cohesion.
5. Consider what other green infrastructure measures could be used to improve these three factors in the town. One by one, through discussion and consensus, write these measures on the remaining five Green Circles and add them to the town.

Stage 3 - 10 minutes

6. Consider which of the green infrastructure measures [Green Circle] is the most innovative, mltibeneficial and inspirational? i.e. has **WOW! factor**. Mark this one with a star.
7. Consider wich of the green infrastructure measures is the least beneficial, or where the benefits are not immediately apparent. Mark this one with a **cross**.

Stage 4 - 15 minutes

8. Move round the other tables in the room to see and discuss their towns and the green infrastricture measures they have suggested.

1

LOCATION
Emilia-Romagna /
North Italy

PROMOTER
Emilia-Romagna Region

PARTNERS
CNR Ibimet
Politecnico - Technical University of Milan
Nomisma
City of Ferrara
City of San Lazzaro (BO)
City of Ravenna
City of Rimini
City of Parma
City of Modena
Professional Associations of Agronomists, Architect and Engineers
AIAPP National Landscapers Association
INU National Institute of Urban Planners

STAKEHOLDERS INVOLVED
Public servants
Architects
Engineers
Agronomists
Landscape designers
Experts in Social Innovation and Participation

INVOLVEMENT METHODOLOGIES
simulation-game
focus group
exploratory walks
debriefing

TIMEFRAME
2015-ongoing

DIMENSIONS
6 cities
6 built neighborhoods
180 hectares of urban areas
4 design lab in Emilia-Romagna Region
20 conferences in Italy
6 exhibitions in Italy
3000 people involved (lessons, workshops, exhibitions, conferences)

EMILIA-ROMAGNA REGION
Raffaele Donini
councilor
Paolo Ferrecchi
director
Roberto Gabrielli
executive
Luisa Ravanello
project manager

TEAM REBUS
Luisa Ravanello
project manager REBUS Emilia-Romagna Region
Elena Farnè
consultant
Francesca Poli
consultant

CNR IBIMET OF BOLOGNA
Teodoro Georgiadis
Marianna Nardino

POLITECNICO TECHNICAL UNIVERSITY OF MILAN
Valentina Dessì

PRO AMBIENTE
Maria Teresa Salomoni

LECTURERS
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Elena Farnè
Teodoro Georgiadis
Andreas Matzarkis
Marco Marcatili
Francesca Poli
Luisa Ravanello
Maria Teresa Salomoni

SOURCES
bit.ly/rebus-laboratorio
https://www.facebook.com/LabREBUS/

CONTACTS
luisa.ravanello@regione.emilia-romagna.it
rebus@regione.emilia-romagna.it

REBUS
design-lab on public spaces and nature based solutions (NbS) for climate change

OVERVIEW

REBUS is a training course and a method conceived by the Emilia-Romagna Region to rethink and redesign the city and the public space through nature based solutions, for mitigation and adaptation of climate change in the urban environment.
The laboratory - started thanks to the European project Republic-Med - is based on simulation-game methodology, co-design and tools to measure the proposed solutions and it is structured through frontal lectures, site visits and an intensive workshop.
The participants of the lab are technicians of the public administration and freelancers who work in planning and redesigning public space and urban green areas, in implementing transformation projects and managing their maintenance.
REBUS is a real team role-playing game, in which three cities and three neighborhoods subject to climate change compete in a (fake) competition for obtaining financial resources from a (fake) call on urban regeneration for climate change .
From 2015, the first year this experimental course, four editions of the workshop were carried out, involving six cities and professionals from all over Italy, four complete series of frontal lectures, numerous conferences by Municipalities and Universities and exhibitions in five Italian cities.
Up till now REBUS involved three thousand technicians overall and its publications, available under the Creative Commons license, are constantly downloaded from the regional website.

OBJECTIVES AND CONFLICTS

REBUS develops from the Emilia-Romagna Region need to experience a new approach to the creation of urban, social, environmental and climate quality of public space for the urban regeneration policies in the existing city.
REBUS working group, while pursuing these objectives, bet on an approach based on the reintroduction of nature into the city, to help improve the urban environmental quality, livability and safety of public spaces, the social integration and the beauty of the urban populations places of living. The quality and availability of public spaces play a fundamental role also in generating economic values, since the quality of the built up areas together with the quality of the public space develops 'contextual' values that increase the real estate value.
To win this challenge, a transdisciplinary group of professionals were chosen as teachers, for the jury and in the teams. This factor was instrumental in sharing a common vocabulary between the stakeholders and in overcoming the disciplinary conflicts that are frequently generated among different professionals called to rethink the city.

Drawing the green infrastructure during the workshop, in the artisan area of San Lazzaro di Savena (photo E. Farnè)

2
3

REBUS TEAMS

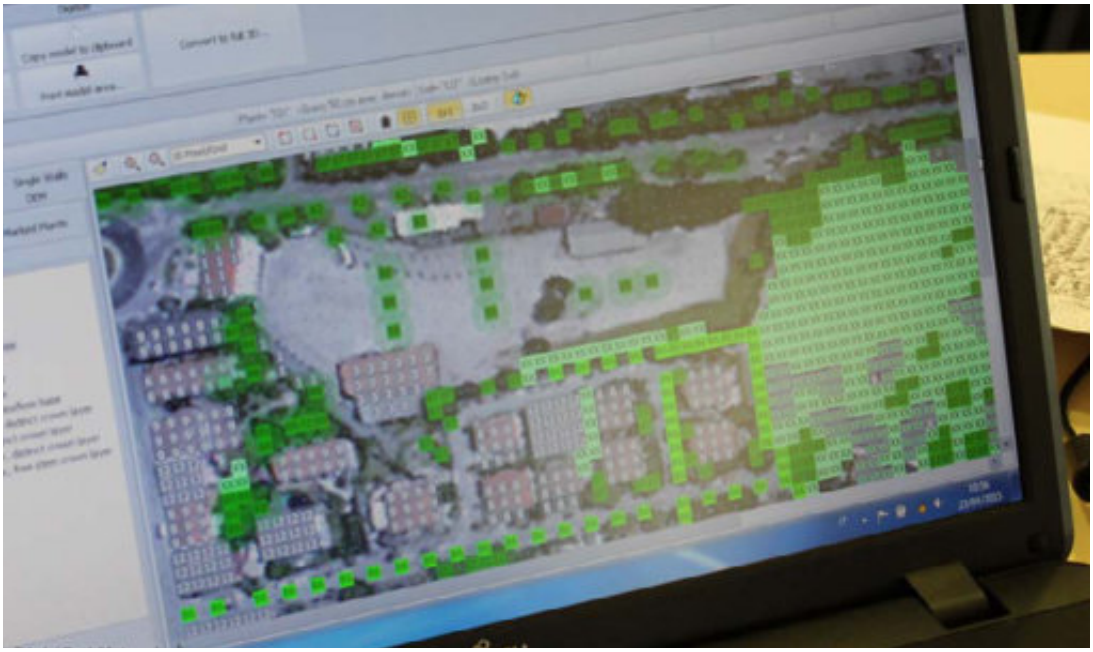
ARCHITECT 4
LANDSCAPE ARCHITECT 2
AGRONOMIST 2
ENGINEER 3
URBAN PLANNER 2
PUBLIC SERVANT 3
+
FACILITATOR 1

REBUS JURY

ARCHITECT 1
URBAN PLANNER 1
BIOCLIMATOLOGIST 1
+
SECRETARY 1
LANDSCAPE DESIGNER 1
EXPERT NBS AND SUDS 1
EXPERT PARTICIPATION PROCESSES 1

REBUS EXPERTS/TUTORS

EXPERT OF PHYTOREMEDIATION 1
EXPERT OF EVALUATION 1
EXPERT OF COMMUNICATION 1
TUTOR ENVIMET 3
TUTOR BENEFITS 1



4

WORKING METHODOLOGY AND CONFRONTATION AND PARTICIPATORY TECHNIQUES

REBUS is divided into five consecutive modules that alternate frontal lessons and site visits - necessary to acquire the disciplinary skills and know-how about the study areas - to workshop activities - organized with interactive discussion methods. Teams are formed by architects, urban planners, agronomists, landscape designers, engineers, social innovators and experts of urban regeneration and technicians from public administrations. Each team has the task to design a project for the public spaces of the assigned district, identifying different measures. For example, to:

- increase the use of functional green, providing from trees along the streets, in squares and parking lots to create a continuous and contiguous green and blue infrastructure to mitigate summer temperatures;
- de-pave the excess asphalt, replacing it with permeable surfaces, rain gardens, retention basins and floodable ditches for the in situ management of intense meteoric events;
- replace the materials on the ground, preferring minerals ones with higher albedo to reduce the heat absorption;
- foresee the demolition of parts of the densest fabrics, to 're-conquer' open space where the measures for climate mitigation and adaptation could be achieved;
- define local community involvement processes and reward procedures and incentives for the owners of the areas.

The transformations proposed in the labs are then eveluated with the Envi-Met simulation model, which measures the perceived temperatures in the areas before and after the interventions, and with Benefits, a spreadsheet that allows to measure the quantity of fine powders and greenhouse gases stocked by the green infrastructure project. In this way it is possible to demonstrate the effectiveness of the proposed climate mitigation and adaptation measures.

The Jury acquires the results of the simulations to support the climate evaluation, and integrates them with other criteria concerning urban planning (strategy and public-private relation), landscape design (green and blue infrastructure), sustainable urban rainwater management(NbS and SUDS), and community involvement process.

The role-playing game develops two types of relationships: collaboration within the team if the different professionals manage to enhance eachothers skills, and competition between one team and the others. Driven to co-design, groups experience horizontal learning that promotes the acquisition of a transdisciplinary approach.

2. Diagram of the green infrastructure in the San Leonardo district in Parma (photo E. Farnè)
3. Teams, Jury, Experts and Tutors of REBUS
4. Envi-Met diagram of the green infrastructure in the market areas of the historical center in Rimini (photo E. Farnè)

5. Walk of a REBUS team in the Parma study area (photo F. Poli)
6. REBUS guide and publications (photo by L. Ravanello)
7-9. Workshop in Bologna (photo M. Chiura)
10. Presentation to the jury in Bologna (photo M. Chiura)

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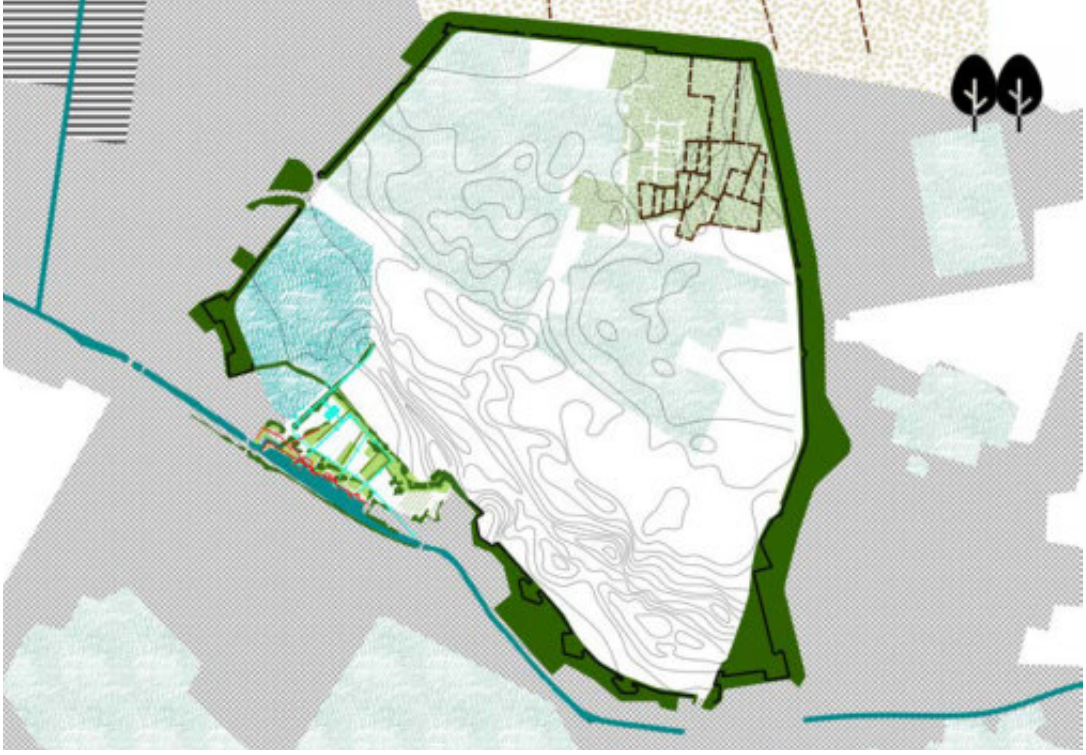


11

OUTCOMES, IMPACTS AND REPLICABILITY

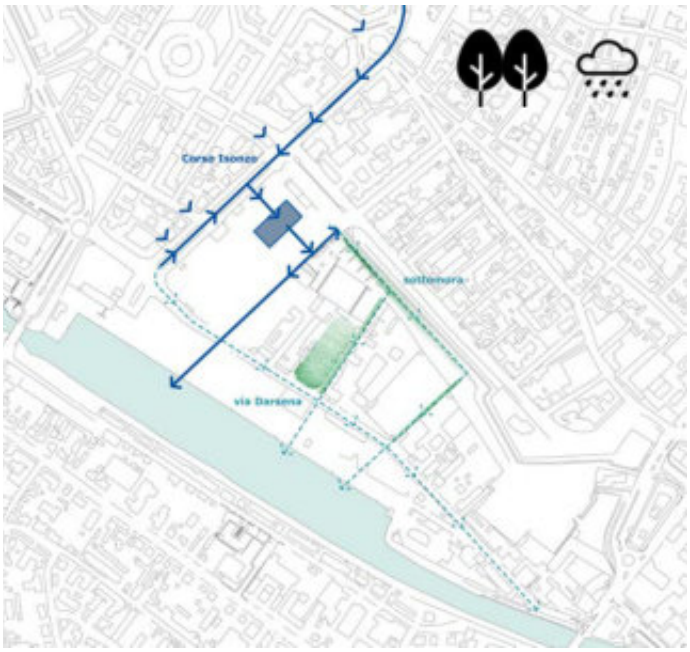
REBUS was played in Emilia-Romagna involving the six cities of Parma, Rimini, Modena, Ferrara, Ravenna and San Lazzaro di Savena (BO) and all the professional associations of Architects, Agronomists, Engineers and the National Association of Landscape Designers (AIAPP). It also obtained numerous patronages among which the Ministry of the Environment.
In terms of design contents, thanks to the REBUS methodology, the positive effects and the ecosystem benefits of the green infrastructure could be verified in the different contexts. Of great interest was the approach of those who defined the urban plan project starting from the climate analyses, considering incremental strategies and progressive demolition actions able to involve landowners and communities in the public spaces design. An important common factor that emerged in the solutions tested in the study districts is the virtuous interaction between urban morphology, direction of prevalent winds and green infrastructure. The trees, in fact, are effective solutions for both mitigation and adaptation to climate change. Regarding the sustainable water management, however, teams imagined several interconnected systems, from rain gardens to floodable parks and gardens, to de-sealing and greening solutions in public or private open spaces.
In terms of positive effects, REBUS outcomes are different:

- the Emilia-Romagna Region acquired REBUS principles in the new urban development law (L.R. 24/2017) by introducing the 'Strategy for urban and ecological-environmental quality ' in the plans;
- also in the regional context, the first call on Urban Regeneration promoted the REBUS criteria to intervene on the existing city with adaptation measures;
- at the municipal level, several administrations activated local experimentations to develop urban regeneration projects and processes and studies according to REBUS criteria and methodology;
- on a professional level, many designers started to work together, modifying their approach to the open space project and experimenting with climate adaptation measures;
- at the national level, REBUS working group and 'City for People' exhibition, that illustrates its results, were invited to events and conventions, including the World Forum on Urban Forest promoted by FAO in Mantua in 2018.

The lab, the exhibition and all REBUS publications - some of which are also available in English - are conceived with Creative Commons criteria: administrations, officials and professionals can make use of the contents, by citing the source.
The labs experimentation implies an investment for the organization of the five modules and the coverage of the costs for teachers, facilitators and tutors.

11. The project of the Ferrara team. The strategy on the urban scale. The design connects the open spaces to the park of the historic walls (REBUS Ferrara team)
12-14. The master plan with blue, gray and green infrastructures (REBUS Ferrara team)

12



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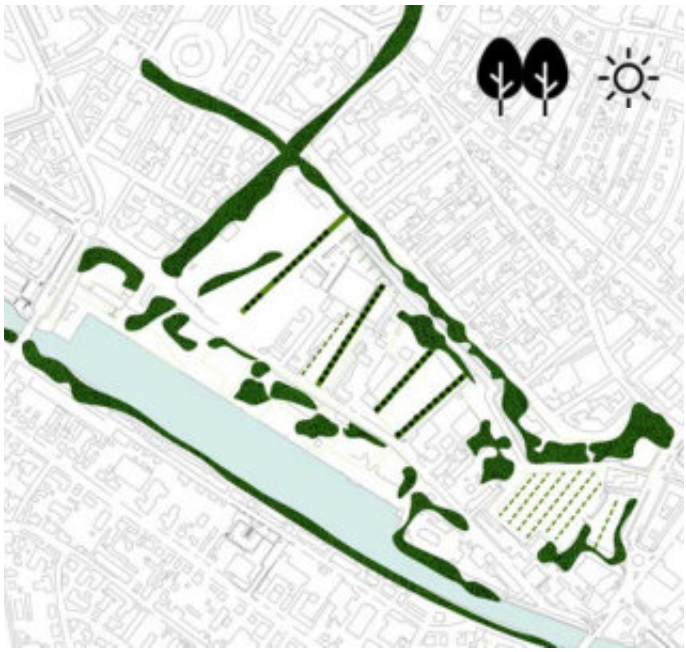


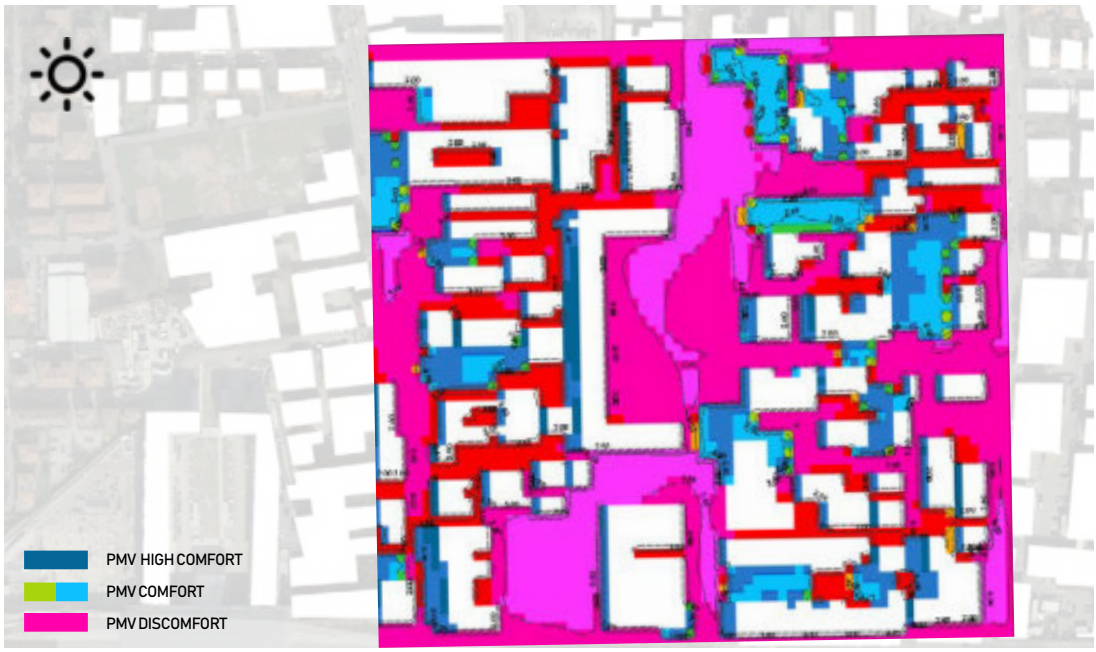
14

Ex ante situation of the case study of the San Leonardo district in Parma.
15. Urban morphology of the neighborhood (REBUS)
16. Open spaces and wind direction (CNR Ibimet and REBUS)
17. Ex ante urban comfort evaluated with Envi-Met. All open spaces have high temperatures and high discomfort (CNR Ibimet and REBUS)

15

16

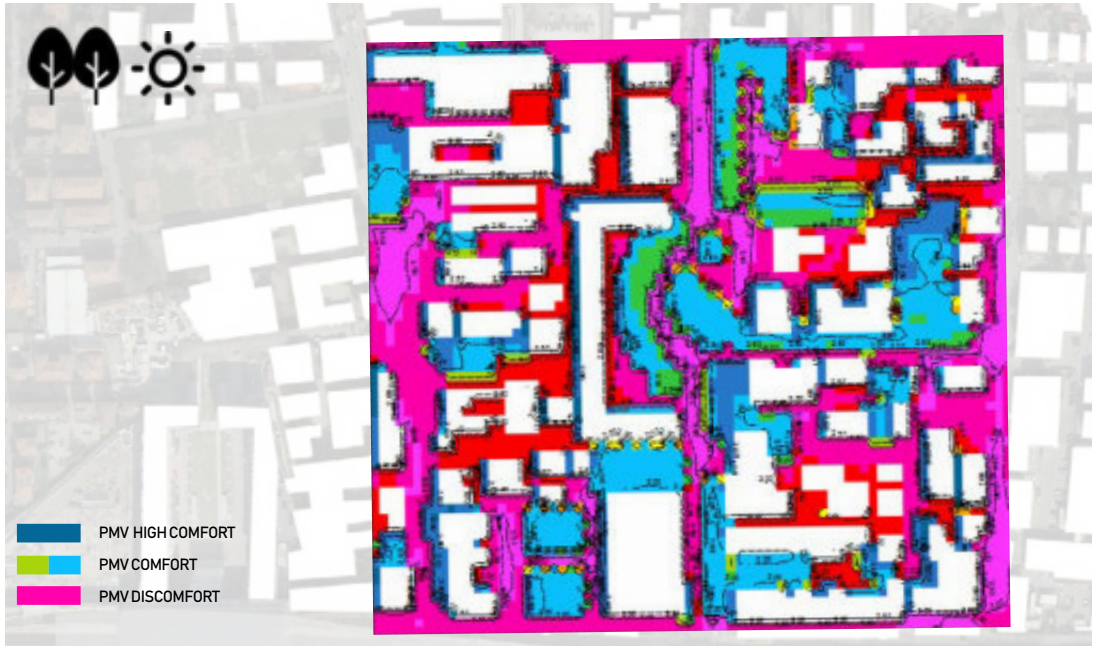
17



Ex post situation of the case study of the San Leonardo district in Parma.
18. Uses and functions of open spaces conceived with the green infrastructure (team Rebus Parma)
19. Green infrastructure concept: continuous and contiguous oriented according to the winds directions (team Rebus Parma)
20. Ex post urban comfort evaluated with Envi-Met. Open spaces, thanks to green infrastructure, have lower temperatures of 3-4 degrees throughout the neighborhood (team Rebus Parma

18

19



20

50

TRAINING TOOLS

1

LOCATION
North America
Canada
United Kingdom
The Netherlands
Italy

PROMOTER OF THE DEPAVE MOVEMENT AND THE GUIDE
Depave

PROMOTERS
Green communities
Rain communities

PARTNERS
Environmental protection and conservation agencies
Regions
Provinces
Local Administrations

STAKEHOLDERS INVOLVED
citizens
families
teachers and students
associations
schools
parishes
commercial activities

METHODOLOGIES OF INVOLVEMENT
Training
Co-design
Co-design
Participated construction sites

TIMEFRAME
2008 Depave is born, the first organization that launches the depaving movement.
Every year depaving involves parking, neighborhood streets, school courtyards.

COSTI
The costs vary from intervention to intervention and from country to country based on the price lists.

SOURCES
https://depave.org/
https://www.facebook.com/depave/

http://depaveparadise.ca/
https://souslespaves.ca/

https://www.operatiesteenbreek.nl/
https://www.facebook.com/operatiesteenbreek/

https://www.shropshirewildlifetrust.org.uk/
https://www.facebook.com/wildlifetrusts

http://www.urbancenterferrara.it/
https://www.facebook.com/UrbanCenterFerrara/

CONTACT
https://depave.org/contact/

DEPAVE IS PARADISE!
a guide to freeing the city soil promoted by the citizens and green communities

OVERVIEW

In different cities of the world there are movements and citizens communities that promote bottom-up actions to de-pave and bring nature back to the city. They define themselves as independent and informal organizations, formed by citizens, acting in a participatory and collaborative way to oppose the environmental and social impacts of cementation and urban impermeabilization. These action groups de-pave the extra urban asphalt to create green areas and permeable gardens, able to intercept rainwater, to purify and let them infiltrate the soil, to foster biodiversity, the socialization of people, the beauty of the local neighborhoods and the resilience of their own cities.

The first group that gave strength and method to this collaborative and participatory de-paving action is the Depave Association, based in Portland, North America, which has been acting continuously since 2008 and has developed a working methodology and an action toolkit to support all Depave communities.

OBJECTIVES AND CONFLICTS

Depave groups promote the transformation of the built-up city to reduce its environmental impacts and improve its sustainability through bottom-up forms of caring. The objective of these informal groups is to bring nature in the cities and urban landscapes, through action and education-oriented projects, so that the inhabitants of a place could become the key players of a real movement to win back public space and green areas in cities.

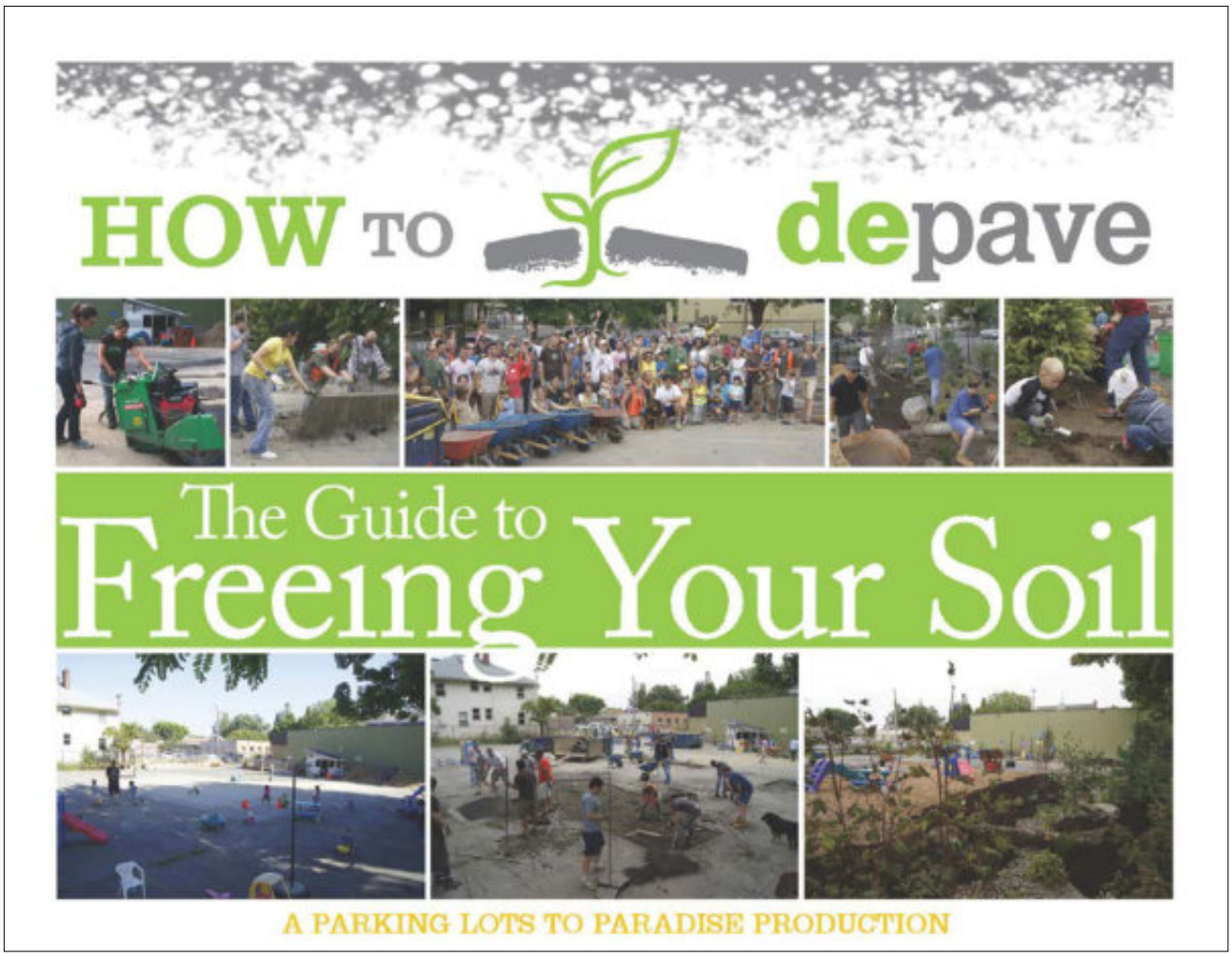
According to Depave groups, the cities have to become livable places again, on a human scale and where people, flora and fauna should be able to live and live together in a healthy environment, with clean air and water, with woods and luxuriant urban parks, with areas dedicated to social and local agriculture, and where the community is committed, active and takes a leading role.

The de-paving action pursues real community values to bring nature back to the city:

1. to promote the citizens participation and awareness;
2. to act for the community and to foster a growth process of the individual and the group, based on self-esteem, self-efficacy and self-determination;
3. to bring out latent resources and to lead the individual to act in order to consciously take his potential, overturning the perception of his limits in view of achieving results exceeding his own expectations.

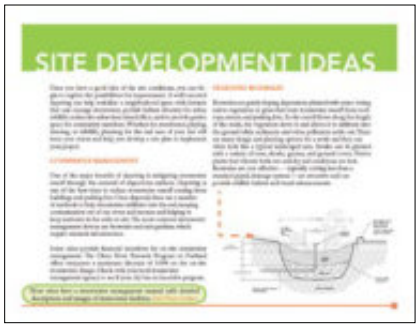
The Depave action model is to do by examples. Thanks to a methodology and a toolkit that clarifies all the process practical steps and phases before acting, the Depave movement contaminated several cities and groups of citizens, in a collaborative atmosphere with low conflict rates.

1. Depaving and gardening of a neighborhood street (photo Depave Paradise)

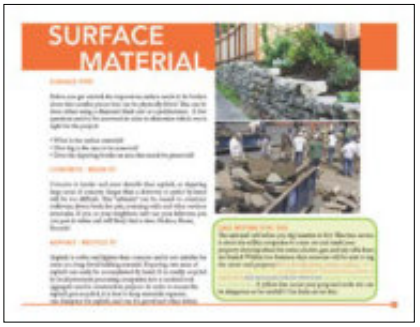

HOW TO depave
The Guide to
Freeing Your Soil
A PARKING LOTS TO PARADISE PRODUCTION


PLANNING


SITE HISTORY
& SOIL HEALTH


SITE DEVELOPMENT IDEAS


CREATING A PLAN

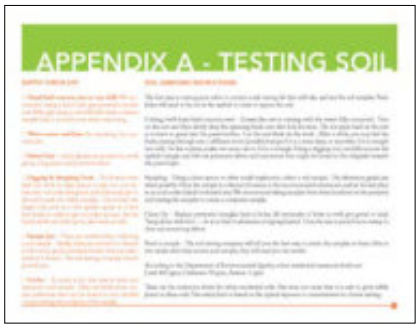

SURFACE
MATERIAL

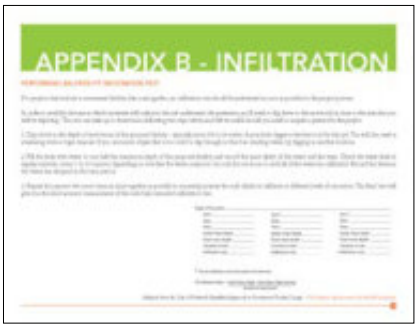

BEFORE
DEPAVING


HAND TOOLS


DEPAVING


POST
DEPAVING





3

WORKING AND INVOLVEMENT METHODOLOGY

The toolkit developed by Depave clarifies and encodes the phases of a de-paving action, each conceptual and operational step for building the project, and the stakeholders roles.
The phases of a de-paving action defined by the Depave toolkit are essentially 3:

1. Co-planning/co-designing the action to:
   - select the area;
   - establish the community-group;
   - study the history and features of the area, the soil and the presence of water;
   - run soil infiltration tests and define rainwater management;
   - choose the type of garden to be realized (community, didactic-educational, naturalistic,...);
   - be supported by a gardener and/or an expert in soils and hydraulics;
   - identify who will manage the garden;
   - design and plan the garden together;
   - obtain licences and authorizations;
   - do a budget of costs.
2. De-paving:
   - materials reuse and disposal;
   - preparation of the working tools;
   - techniques for the work site safety;
   - site organization.
3. Realization of the garden after de-paving action:
   - garden realization;
   - soil restoration;
   - gardening.

2-3. The practical guide on depaving. The guide describes the phases of the action with a clear and simple language for citizens and activists. (by Depave)

4

4-7. Depaving and gardening in the Rue de Trotteil in Canada (by Depave paradise)

The construction of the working group and the community that will start the action is an important and delicate step, because it is necessary to involve all the stakeholders who will play a role in conceiving the action, realizing it and managing the garden. 3 types of stakeholders can be identified:

1/ Public Bodies and institutional organisations (bodies and agencies for the environment protection and conservation and for the promotion of urban regeneration, Regions, Provinces, Municipalities):

- to provide information and technical assistance to those who intent to remove cement and asphalt;
- to educate citizens about the advantages of removing asphalt and extra cement;
- to support and minimize the amount of impervious surfaces in de-paving projects;
- to promote the reuse of concrete and asphalt to be disposed of according to a collaborative and circular economy;
- to research and activate funds, partnerships and sponsorship for the projects implementation.

2/ Citizens (associations, academics and teachers, school groups):

- to develop projects;
- to build the network of stakeholders and companies;
- to identify and agree on spaces;
- to carry in the de-paving actions;
- to carry on the gardening actions;
- to inform the other citizens and communities about the outcomes and impacts of their actions;
- to cooperate in the management of the realized gardens.

3/ The owners of the areas (municipalities, schools, commercial activities, non-profits, parishes,...):

- to provide the areas to de-pave;
- to collaborate during the de-paving action;
- to cooperate in the management of the realized gardens.

5

6

7

8

OUTCOMES, IMPACTS AND REPLICABILITY

In ten years, from 2008, Depave hired nearly 4,800 volunteers for the demolition and recovery of more than 165,000 square feet of paved soil (almost exclusively by hand!) and created 63 new gardens and community green spaces that absorbed billions of cubic meters of rainwater (not transferred to the sewage system), absorbed fine powders and stored C02.

But the action of Depave inspired and promoted the establishment of many other groups, in other cities and states. In North America, new Depave groups were born in Cleveland, Nashville, Tennessee, Puyallup; The Depave Paradise Group – with actions in several cities and states such as Toronto, Peterborough, Ottawa, Alberta, Winnipeg, Nova Scotia, North Bay, York Region – and the Sous le Pavés association in Montreal in Quebec, were born in Canada. In England, Depave UK is active in Wales in Shropshire. In Holland there is Operatie Steenbreek, active in Amersfoort in the province of Utrecht. In Italy, a group of citizens is about to start in Ferrara, supported by Urban Center, Sustainability and Education Center, Arpae, REBUS Lab, Perfect Ferrara project group and SOS4Life project.

Today these movements support each other, try to create networks and - together with the Administrations and the Environmental Protection Agencies that collaborate with them - promote the Depave philosophy in other cities and territories of the world.

This concrete way of doing, planned in every detail and oriented to the personal growth of individuals and groups and to the work site safety, promotes a strong interaction and a great awareness in those who participate, giving life to an extremely positive and collaborative atmosphere.

To start a Depave group able to act with continuity and effectiveness over time, these steps seem to be a priority

1. to train and motivate people by following the Depave toolkit;
2. to foster the creation of cohesive, responsible groups with diversified and organized competences in a collaborative and participatory way;
3. to support the action with technical and scientific skills;
4. to give visibility to the actions thanks to tools and communication channels and moments.

8-10. Depaving and gardening in Rue de Trotteil in Canada (by Depave paradise)


À GO ON VERDIT!
Depave Paradise crée des milieux de vie sains et dynamiques en convertissant l'asphalte en espace vert.
DEPAVE PARADISE .ca

9

10

1

LOCATION
United Kingdom

PROMOTER
Trees and Design Action Group from London

SPONSORS
Arboricultural Association
Barcham - The Tree Specialists
Capita Lovejoy – Land Planning by design
Carbongold
Deeproot - Built environment for ecosystem services and green infrastructure
Wrekinproducts - Intelligent products for civil engineering

STAKEHOLDERS AND PARTNERS
DEFRA Department for Environment, Food and Rural Affairs
Arboricultural Association di Exter
Barcham Trees in Cambridgeshire
RTPI from Birmingham
Greater London Authority
Landscape Institute of Newcastle
Landscape Institute of London
Landscape Institute of Clerkenwell
Manchester Museum
The Red Rose Forest
Urban Design London
Building Centre of London

PARTICIPATION METHODOLOGIES
questionnaires
interviews
meetings
seminars
workshops

TIMEFRAME
TDAG is active from 2007

COSTS
TDAG's activities are funded thanks to sponsorships and donations

SOURCES
http://www.tdag.org.uk
https://twitter.com/TDAG_

CONTACTS
suejamesriba@gmail.com
e.ferranti@bham.ac.uk

Urban garden in London along the Thames (photo E. Farnè)

TREES IN HARD LANDSCAPES a guide on trees and green infrastructure for technicians and administrators

OVERVIEW

The Trees and Design Action Group in London is a group formed by technicians and professionals of different disciplines dealing with urban green, trees and public spaces (agronomists, engineers, landscape designers, architects, mobility experts, urban planners,...). TDAG proposes itself as a collaborative forum and its members promote the knowledge of the benefits that trees bring to the city through editorial activities and tools dedicated to technicians and administrators.

TDAG has its own very rich editorial line about trees and thanks to its publications it explores challenges and practical solutions to support technicians from public administrations and professionals for a correct design of trees and urban green infrastructure in their projects for the benefit of city life and public health. For the realization of these guides, TDAG involved several bodies dealing with public works and procurement, transport and highways, civil engineering and forestry. TDAG also involved and let professionals and organizations participate actively, asking for a concrete feedback about the guides, to improve the clarity and effectiveness of the content and positively influence all the stakeholders in the city working with green and infrastructure.

Among the handbooks drafted by TDAG, the first - and best-known - is 'Trees in Hard Landscapes - A guide for Delivery'. This first publication is followed by 'Trees in the Townscape - A guide for Decision Makers'. New guides on the evaluation of ecosystem benefits and the role of trees for air quality are being drafted.

OBJECTIVES AND CONFLICTS

The Trees and Design Action Group (TDAG) is an open association with over 500 members; its mission is to facilitate cross-sectoral and transdisciplinary dialogue in the UK to support processes, plans and urban forestation projects.

TDAG supports the idea that the trees and the benefits they generate are a common goal for the interest of the community and new generations. In order to take concrete action in the pursuit of this objective - and to combat the conflicts that naturally occur in the different sectors dealing with urban green - TDAG proposes an operative strategy based on the collaboration between stakeholders and competences. The voluntary spirit that animates the working methodology and the publication of open and free guides allows TDAG to assimilate ideas and knowledge on urban green and green infrastructure, regardless of the organizational hierarchy and the commercial profit of editorial products, promoting the exchange of ideas and contamination of competence.

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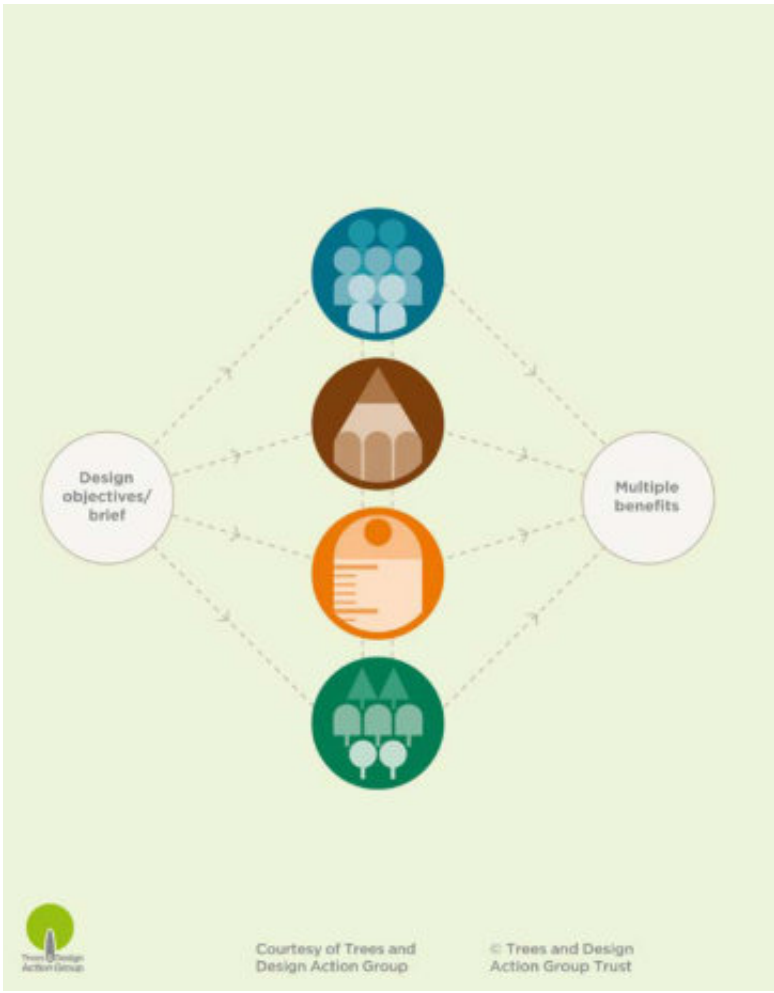

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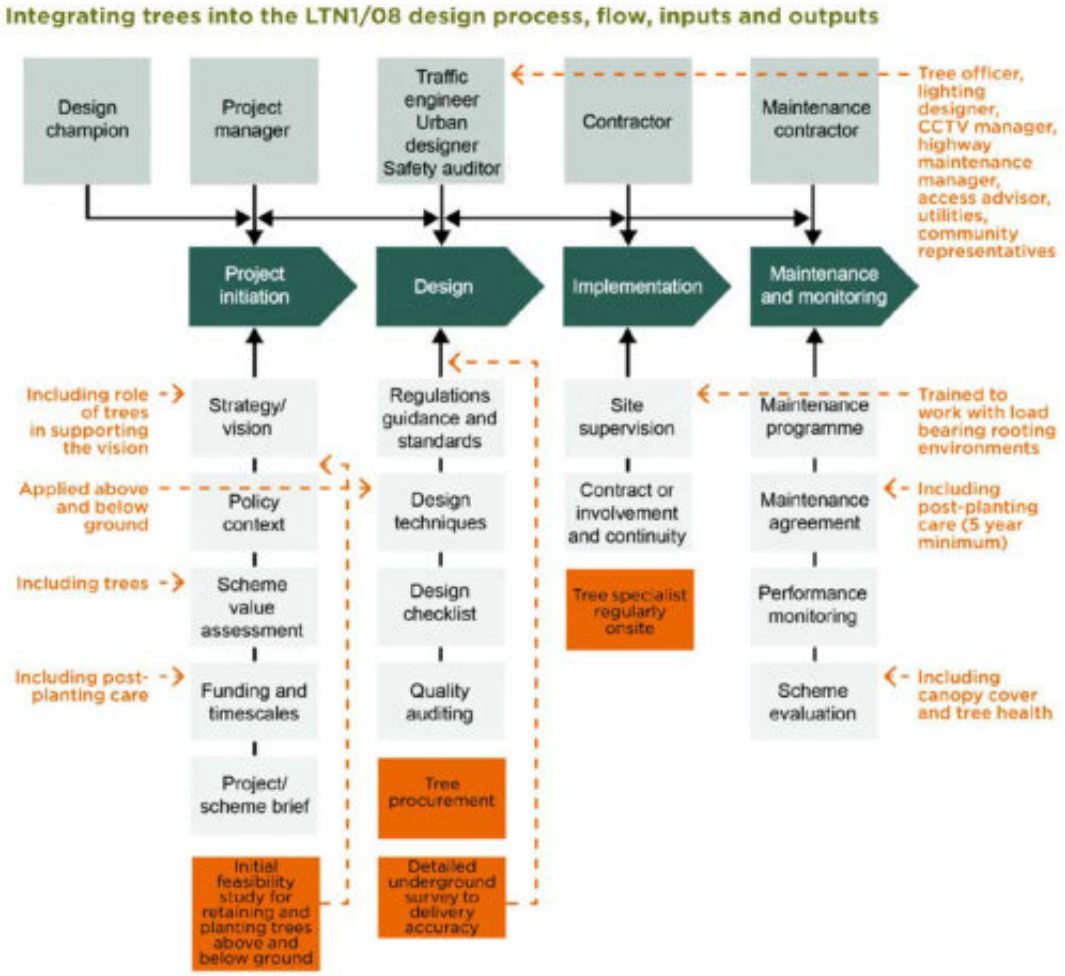
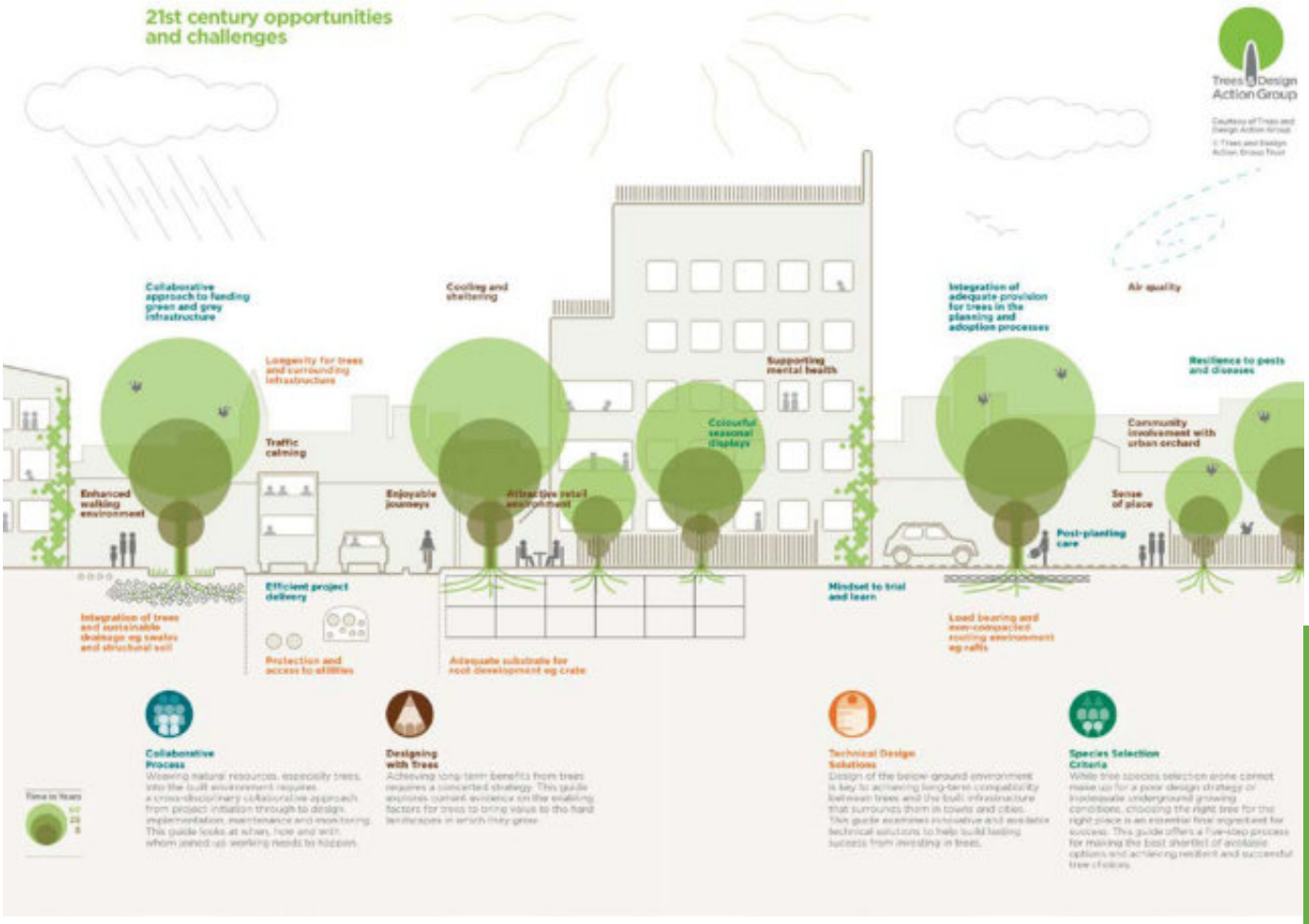
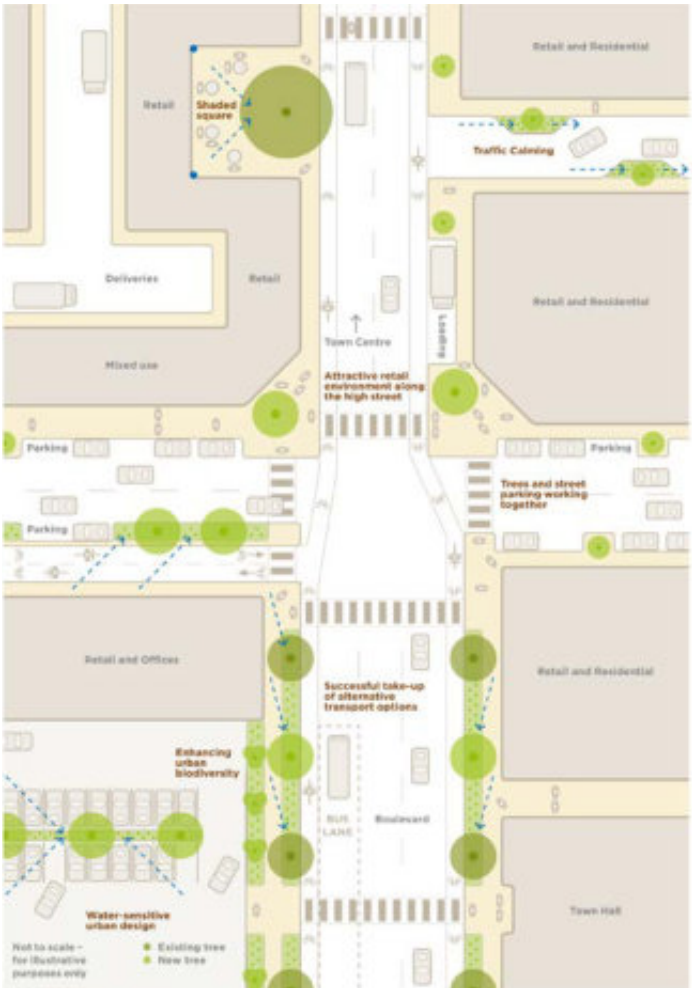
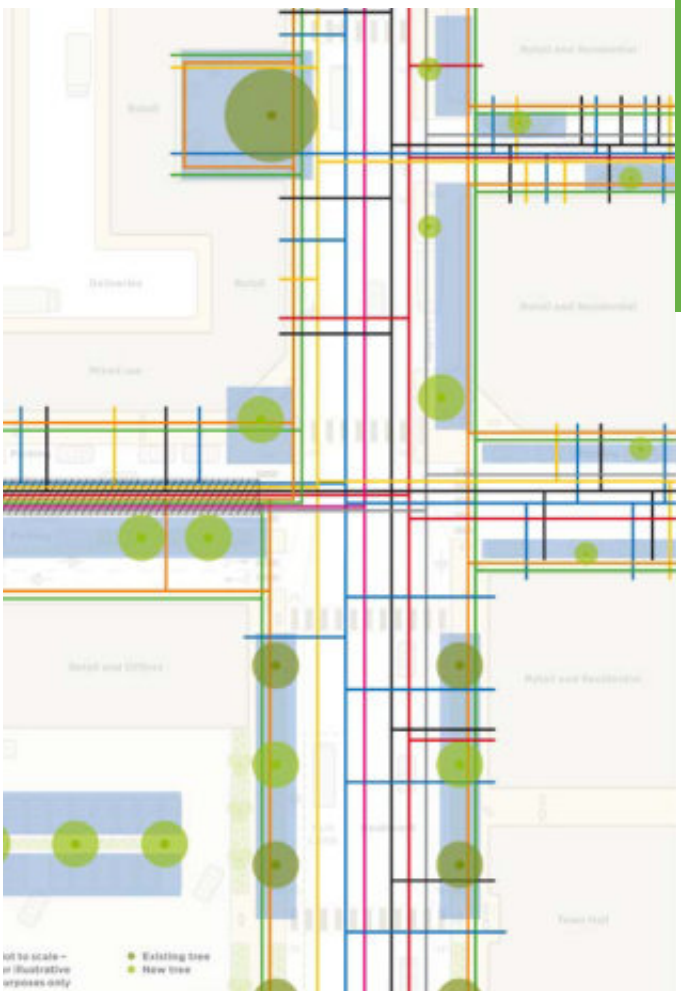


2-7. Trees in Hard Lanscapes (by TDAG)


21st century opportunities and challenges
Trees & Design Action Group
Collaborative approach to funding green and grey infrastructure
Cooling and sheltering
Air quality
Integration of adequate provision for trees in the planning and adoption processes
Longevity for trees and surrounding infrastructure
Supporting mental health
Resilience to pests and diseases
Traffic calming
Colourful seasonal displays
Community involvement with urban orchard
Enhanced walking environment
Enjoyable journeys
Attractive retail environment
Sense of place
Post-planting care
Efficient project delivery
Mindset to trial and learn
Integration of trees and sustainable drainage eg swales and structural soil
Load bearing and non-compacted rooting environment eg rafts
Protection and access to utilities
Adequate substrate for root development eg crate
Collaborative Process
Designing with Trees
Technical Design Solutions
Species Selection Criteria


Retail and Residential
Retail
Shaded square
Traffic Calming
Deliveries
Retail
Retail and Residential
Town Centre
Mixed use
Attractive retail environment along the high street
Parking
Parking
Parking
Trees and street parking working together
Retail and Offices
Retail and Residential
Successful take-up of alternative transport options
Enhancing urban biodiversity
Boulevard
Water-sensitive urban design
Town Hall
Not to scale – for illustrative purposes only
Existing tree
New tree


Existing tree
New tree

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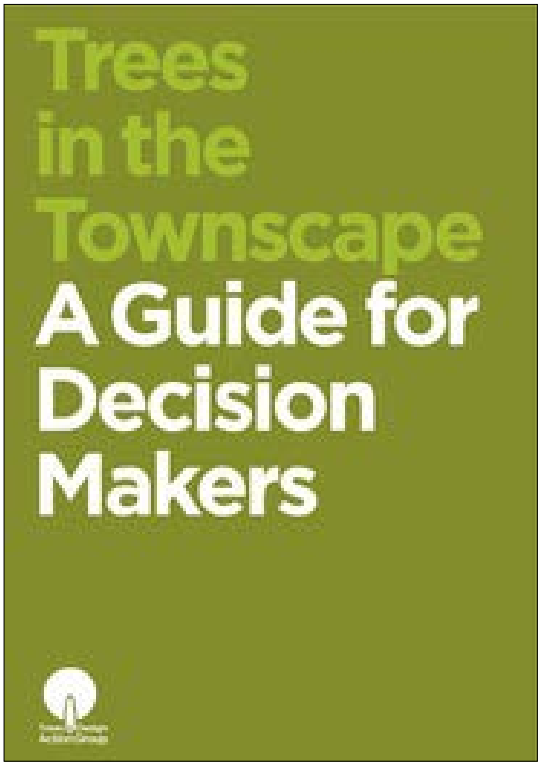
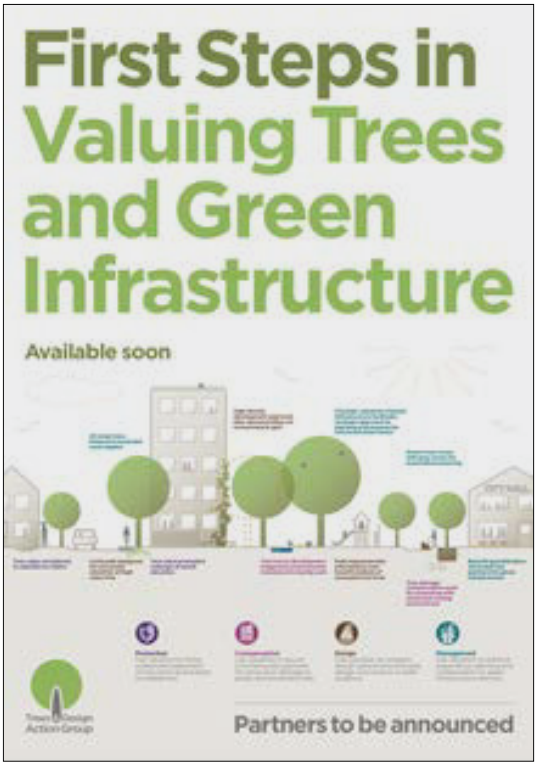




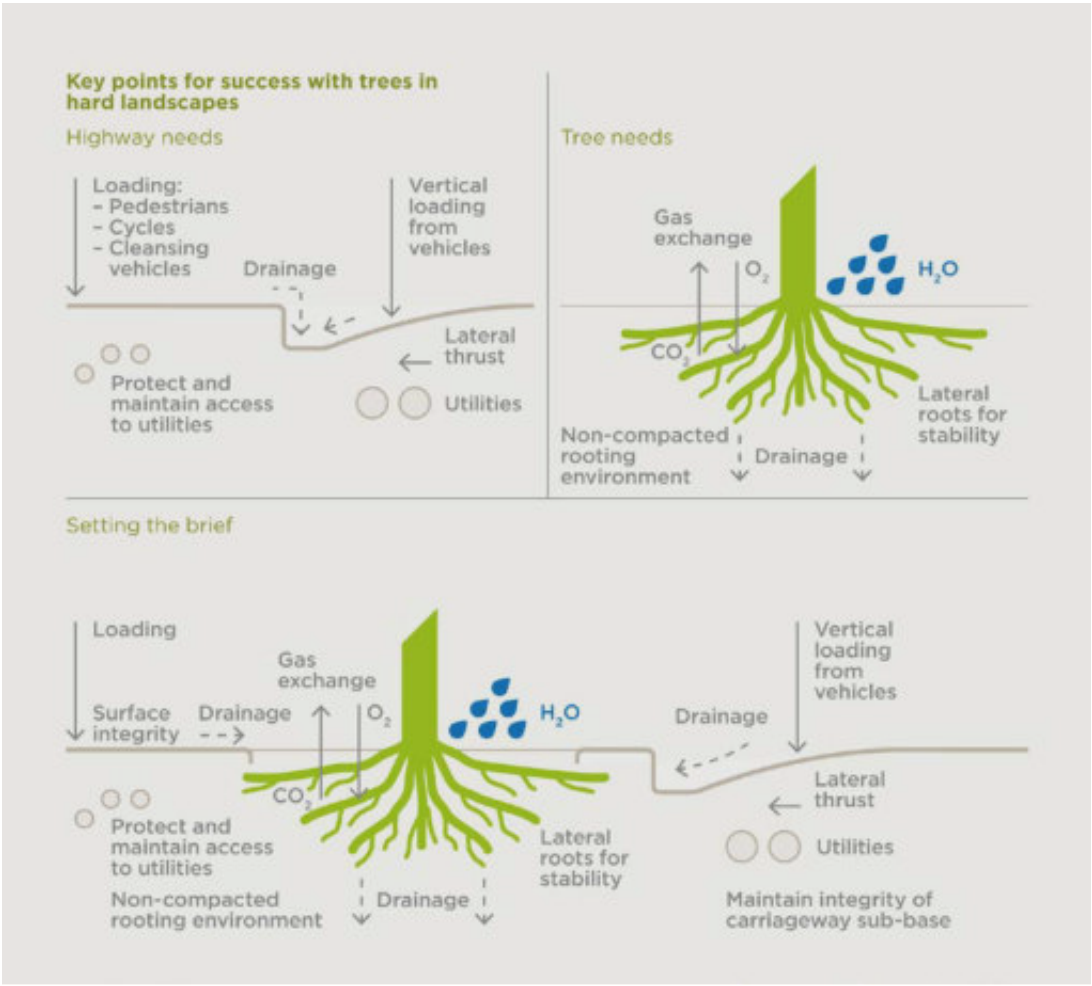
8.Trees in The Townscape (by TDAG)
9. First Steps in Valuing Trees and Green Infrastructure (by TDAG)
10. Trees in The Townscape (by TDAG)

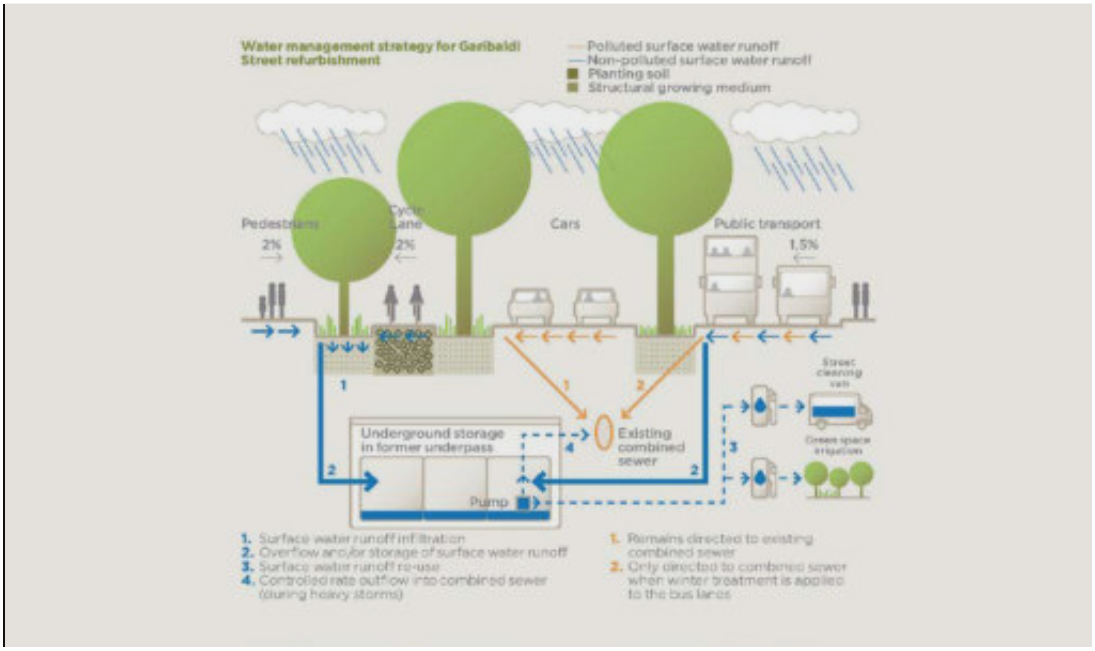
10

11

11. Tree Species Selection for Green Infrastructure (by TDAG)
12.Trees in The Townscape (by TDAG)

12





14.Picture in 'Using rainwater for tree-based cooling on Garibaldi Street '(by TDAG)
15-16. Trees in Hard Landscapes (by TDAG)

WORKING AND INVOLVEMENT METHODOLOGY

'Trees in Hard Landscape' was developed to support technicians involved in mobility and public space design, while choosing the right trees for each context. The guide points out the principles on how to select, plant and maintain trees in mineral landscapes and built along roads, in squares and car parking areas, taking into account above-ground and underground infrastructures that intercept roots, soil quality and urban rainwater infiltration, as well as tree size and crown form of the above-ground foliage in relation to buildings, palaces and infrastructures.

For drafting the guide, TDAG made use questionnaire and organized meetings on the territory in several English cities so that all its members could participate and contribute with advices and case studies. The Guide is structured in 4 chapters:

1. collaborative process;
2. designing public space with trees;
3. technical design solutions;
4. species selection criteria.

Each thematic chapter of the guide ends with a checklist in the form of questionnaire, case studies and references useful for the realization.

'Trees in the Townscape' was instead developed to direct administrators towards conscious choices and the development of effective policies related to ecosystem benefits. The guide defines 12 inspiration principles declined in 4 strategic actions:

1. planning urban forestation;
2. designing the green infrastructure;
3. planting and protecting trees;
4. managing and monitoring interventions.

OUTCOMES, IMPACTS AND REPLICABILITY

TDAG promoted knowledge of its guides and tools through seminars, meetings, workshops and discussions in many English cities. These activities, always organized with speakers with diversified skills - engineering, landscape, mobility, forestry - involved important and prestigious institutions and professional networks. Some guides then - translated into French – encouraged the spread and the creation of a wider network even outside of England.

Because of the way they are realized, thanks to a vast graphic and photographic setup and to the project evaluation instruments, the TDAG toolkits can be easily used by technicians from other countries. ■

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16

Quick Check

Are tree selection and procurement on the right track?

Project manager

Have you...

- ○ Ensured that tree selection and ordering processes meet the project programme?

Design specialist(s)

Have you...

- ○ In a new development, explored opportunities to influence site planning to provide suitable space and conditions for trees?
- ○ Identified key site constraints for trees (soil texture and structure, water access, temperature, sunlight, wind exposure, pest and pathogens present in the area, presence of shrinkable soils, proximity to sewer or surface water pipes, available space, intensity of use, tolerance for tree litter, capacity for maintenance)?
- ○ Identified aesthetic and functional requirement for trees (shape, scale, texture, seasonal variations, particulate matter filtering capacity, wildlife benefits, etc)?
- ○ Sought input from the tree officer/specialist on the characteristics of the local tree population?
- ○ Sought specialist input to analyse the tree selection criteria identified (site constraints, expected benefits, tree population resilience) and shortlist some potential options?
- ○ Liaised with tree nurseries to understand availability and lead time before making any final choices?
- ○ Recommended to client the possibility of advanced procurement?
- ○ Sought customer / community engagement in final decisions?
- ○ Worked with a tree specialist to write a competent tree specification, following the recommendations in chapter 8 of *BS 4585:2014* and featuring adequate definition of morphological conditions (including expected stem girth, tree height, clear stem height, branch structure, stem taper, height/stem ratio) as well as physiological health and traceability?

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URBAN PLANS AND URBAN REGENERATION STRATEGIES

1

LOCATION
Medicina, Italy

INHABITANTS
16,000

PROMOTER
Municipality of Medicina

PARTNERS
Renana Reclamation Consortium
CON.Ami Consortium
Hera spa

CO-FINANCING
Emilia-Romagna Region

STAKEHOLDERS
20 technicians at the co-design table
4 Public Authorities
40 citizens
6 private companies

PARTICIPATION METHODOLOGIES
Focus-group
Exploratory walks
De-briefing
Brainstorming
Co-design

TIMELINE
2018
March / Call for professionals
June-July / Co-design and participation
August-September / Deliverables draft
October-December / Selection of proposals by the Emilia-Romagna Regione
October-December / Call for the Station Hub
2019
February-March / Contracts assignment
April-December / Definitive-Executive design
June-September / participation

DATA
40 hectares in total
4 hectares of public space regenerated with green
2 constructed wetlands and detention basins
2 de-sealing interventions in asphalted parking lots
500 new trees
1 drainage system
transformation of 2 buildings with public functions

COSTS
2018
1) 30,000 euro for experts to be incurred in 2019-2020
2) 1,400.000 euro among which 80,000 euro for participation and social innovation actions
820,000 euro buildings, mobility and parking lots
500,000 euro environmental works and sewer
currently to be fund 2020-2021
3) 2,300,000 euro canal

STAFF
Sisto Astarita
project manager
Rachele Bria
call for experts, involvement of public bodies, draft of agreements, compatibility with urban plans
Silvia Suzzi
analysis of historic and administrative documentation
Tiziano Trebbi
historic documentation
Sauro Dal Pozzo
mobility and support for the cost calculations
Jessica Torri
economic activities

EXPERTS
Elena Farnè
co-design table coordinator and regeneration strategy
Francesca Battistoni
Nico Cattapan
social innovation activity
Annalaura Ciampi
participation activity
Kristian Fabbri
microclimate analysis
Paolo Gueltrini
forest design
Raffaella Lombardi
hydraulic design and costs calculation
Sebastiano Sarti
dismissed buildings design and slow mobility

RENANA RECLAMATION CONSORTIUM
Enrico Terzo Alessandra
Marco Rigotti

IBIMET- NATIONAL RESEARCH COUNCIL
Marianna Nardino

COLLABORATORS
Claudia Conti, Adele Fiorani, Riccardo Tagliaferri, Luca Vandini, Leonardo Tedeschi

SOURCES
bit.ly/PIANO-STRATEGICO-LOCALE-MEDICINA

CONTACTS
rachele.bria@comune.medicina.bo.it

ALONG THE CANAL OF THE MEDICINA CITY
urban, environmental and social regeneration strategy

OVERVIEW

The City of Medicina, between spring and summer 2018, drafted the urban and strategic planning project 'Along the Canal of Medicina' to participate to the first call on urban regeneration of the Emilia-Romagna Region. The strategy behind the project is to create a system of public spaces and green and blue infrastructure along the entire canal, imagined as climate change adaptation measures.

With its candidacy, the Municipality acquired the resources to start with the priority interventions of urban and environmental regeneration planed to regenerate public spaces and areas along the canal - 2 km, about 40 hectares - to start water reclamation and develop processes for the community involvement and participation.

To develop the strategy in a few months and interface with the Authorities responsible for the canal, the owners of the areas and the residents, the Administration started a co-design table. The City Planning and Public Works Offices, staff from the Renana Reclamation Consortium (the canal manager) and the CON.Ami Consortium (the infrastructures owner) and the company Hera SpA (the sewer system manager) took part to the technical table, together with a group of experts of urban planning, architecture, landscape, hydraulic and environmental design, and experts in social innovation and participation.

The project, worth over 3.5 million euros, developed in just 2 months thanks to a co-design process between Institutions, Professionals, Owners and Community.

OBJECTIVES AND CONFLICTS

The Medicina Canal belongs to the Reclamation Authority and crosses the town from south to north. The Canal was a strategic element of city development, to supply water for agricultural purposes, to make the mills function and thanks to the presence of bodies and activities along its axis.

Due to relevant hygiene and sanitary problems, in 1930 the urban section of the canal was culverted and nowadays it still acts as a non-regular sewer and is occupied, on the ground, by unauthorized and incongruent constructions. With the development of the project the Municipality set two strategic objectives:

to reclaim and secure the canal and its waters, to redevelop the shores and public spaces that overlook it for about 2 km and to activate a public debate process with local residents;

to regenerate public spaces in the northern area of the city - where dismissed areas, housing project, an old crumbling mill and the old station find place - and to activate participation

1. Master plan Along the Medical Canal. (Municipality of Medicina)

3


ABACO
prato rustico
giardino umido/fitodepurazione
fascia arborea/arbustiva
pavimentazione in calcestre
pavimentazione in biostrasse
pavimentazione in legno
asfalto colorato
poli socio-culturali/presidi di quartiere
Hub ex stazione
Bus station
via Fava
Casa di quartiere
AREA NON OGGETTO DI INTERVENTO
via Melega
via Luminasi
via Muzzini
via Simoni

4

5

6

2. Images of the co-design process and the Medicine river (Municipality of Medicina)
3. Aerial view of Medicina (Municipality of Medicina)
4-10. Public spaces along the canal river (Municipality of Medicina)

processes for companies and associations.
The main conflicts faced by the co-design table during the candidacy concerned the difficulty to share in a short time a common strategy among the Authorities responsible for the canal, the creation of a common language between the different professionals and the discussion with some private owners. During the listening activities organized with the citizens and carried out so far, there were no particular critical issues emerged in the public debate with the residents living along the canal.

WORKING METHODOLOGY AND CONFRONTATION AND PARTICIPATORY TECHNIQUES

The strategic elaboration process lasted two months, from mid-June to mid-August, with six co-design defined moments:

- 1-day interviews with the mayor and the city councillors;
- 1-day site visit with all the members of the co-design table and group de-briefing;
- 1-day to share specific analyses of the areas with all the members of the table, from an urban, landscape, hydraulic and climate point of view, and to brainstorm together on the areas critical issues and potentials;
- interviews and focus-groups for businesses and an exploratory walk with the citizens aimed at identifying needs, conflicts and potential interests of local stakeholders;
- 1st intensive 3-day co-design workshop - inspired by the REBUS working methodology - with all the group members. The workshop constantly alternated plenary sessions, works in small groups on specific themes and on-site visits, to encourage the evolution and maturation of choices; 2nd intensive 1-day co-design workshop aimed at sharing the project and defining the deliverables.

THE GREEN AND BLU INFRASTRUCTURE PROJECT

The perimeter of the project area changed many times during the co-design table activities, according to two possible scenarios:
to concentrate on the northern areas where the canal is covered, investing in the regeneration and urban comfort of public areas and the renovation of private properties;
to expand the intervention to all areas along the canal, equally investing in environmental and hydraulic works as well as in building constructions and mobility.
The second option prevailed, actually, for two reasons:
at first, it was difficult in just two months to be able to sign an agreement between

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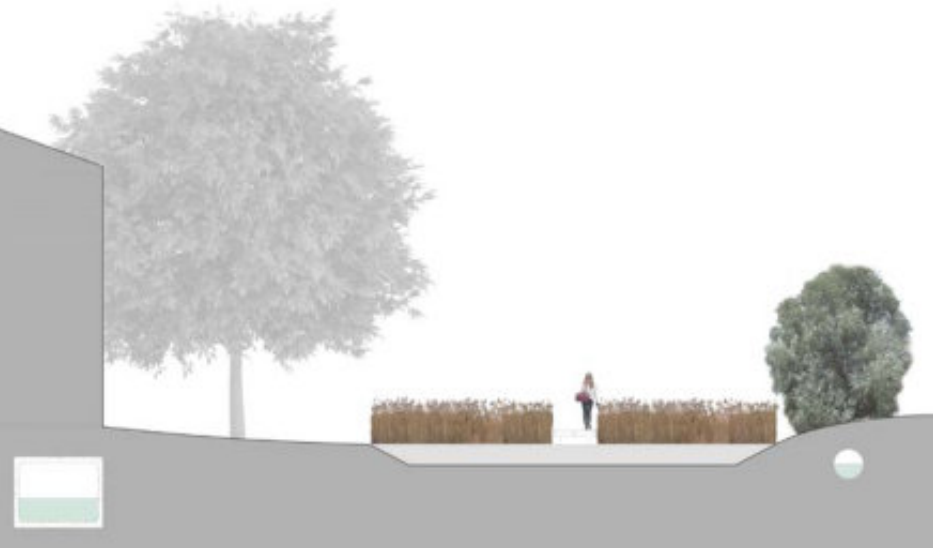

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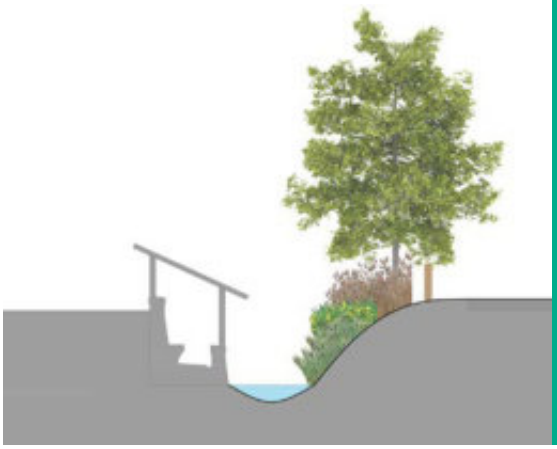

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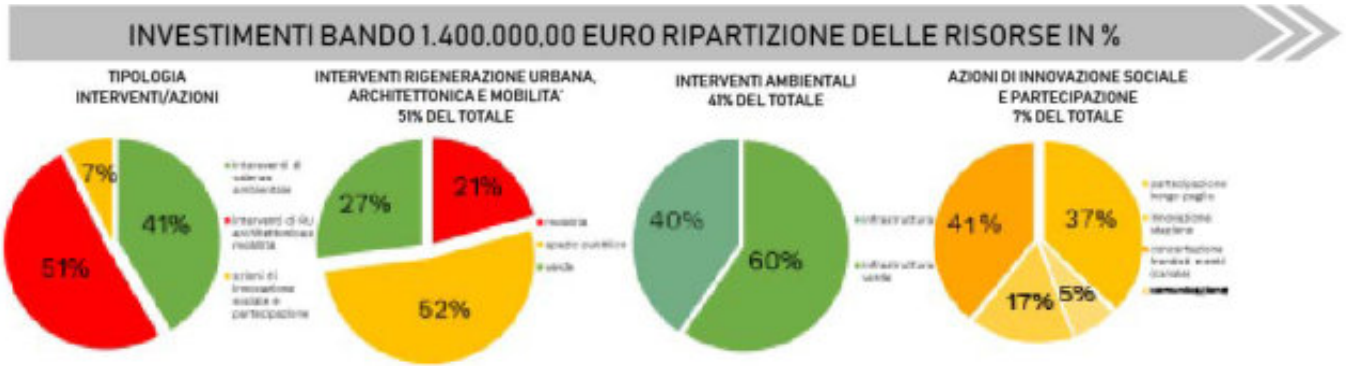
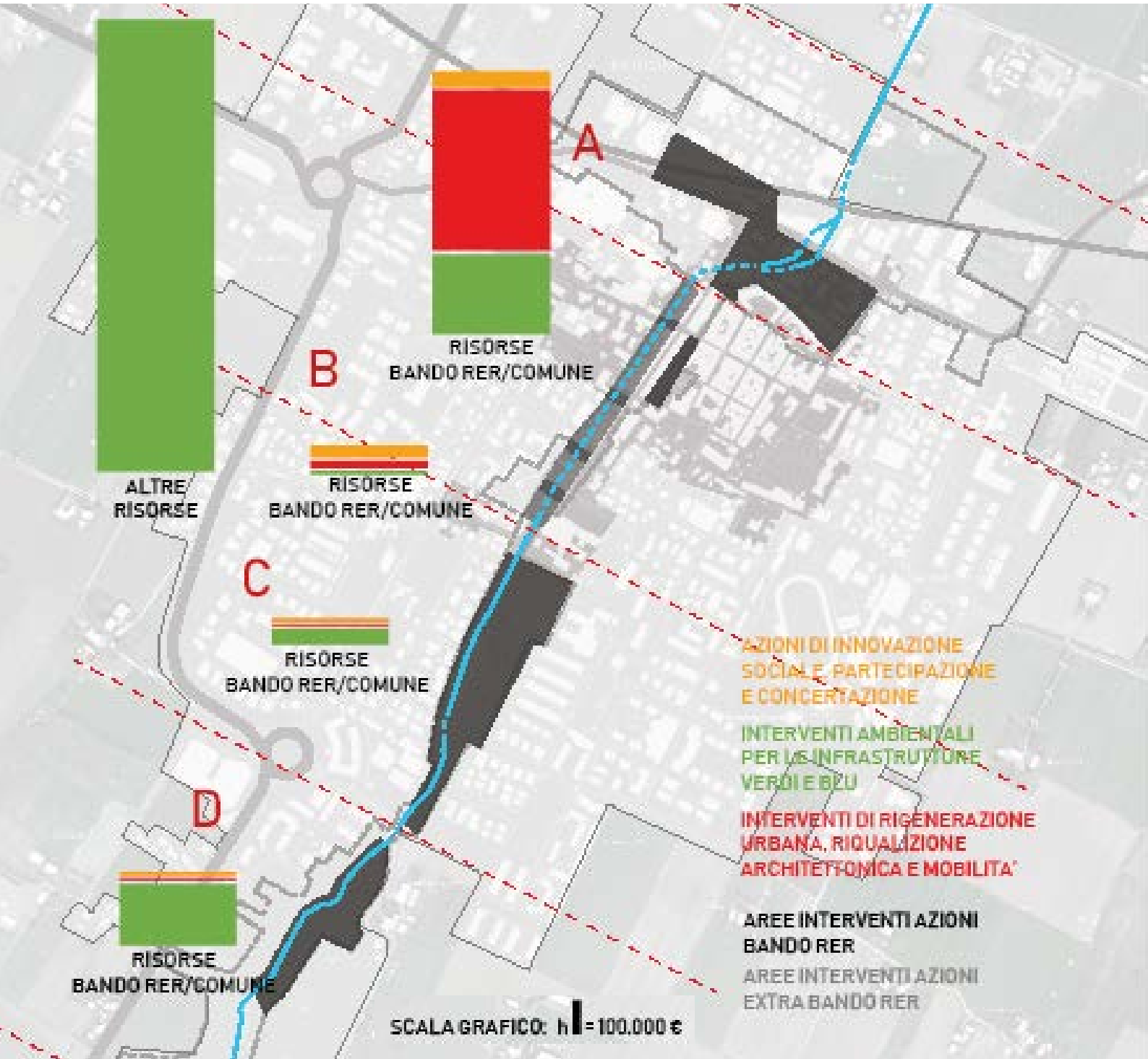
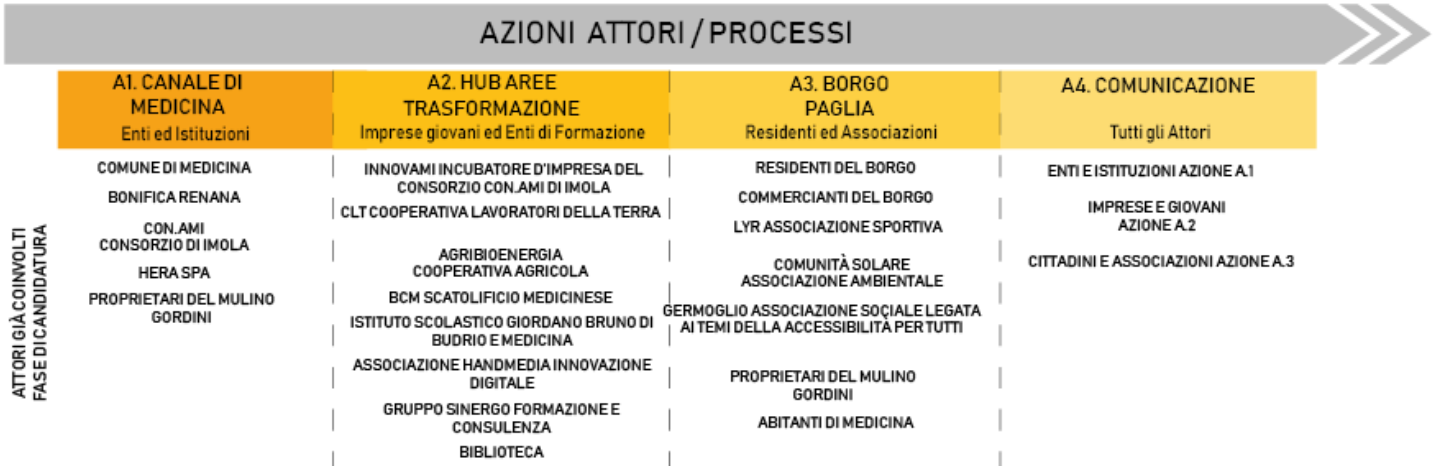

INVESTIMENTI BANDO 1.400.000,00 EURO RIPARTIZIONE DELLE RISORSE IN %
TIPOLOGIA INTERVENTI/AZIONI
INTERVENTI RIGENERAZIONE URBANA, ARCHITETTONICA E MOBILITA' 51% DEL TOTALE
INTERVENTI AMBIENTALI 41% DEL TOTALE
AZIONI DI INNOVAZIONE SOCIALE E PARTECIPAZIONE 7% DEL TOTALE
7%
41%
51%
27%
21%
52%
40%
60%
41%
37%
17%
5%


A
RISORSE BANDO RER/COMUNE
B
ALTRE RISORSE
RISORSE BANDO RER/COMUNE
C
RISORSE BANDO RER/COMUNE
D
RISORSE BANDO RER/COMUNE
AZIONI DI INNOVAZIONE SOCIALE, PARTECIPAZIONE E CONCERTAZIONE
INTERVENTI AMBIENTALI PER LE INFRASTRUTTURE VERDI E BLU
INTERVENTI DI RIGENERAZIONE URBANA, RIQUALIZIONE ARCHITETTONICA E MOBILITA'
AREE INTERVENTI AZIONI BANDO RER
AREE INTERVENTI AZIONI EXTRA BANDO RER
SCALA GRAFICO: h = 100.000 €



Administration and private properties involved.
the second reason was a strategic and opportunity choice. Given the historical difficulty to reach an Agreement with the Authorities managing the canal, the possible incentives coming from the call on the one hand and the discussion methodology developed during the co-design table - quick and progressive - on the other hand, encouraged a collaborative and challenging atmosphere among all stakeholders.
The Project is characterized by a series of interventions that bring nature back to the city and re-give life to the urban landscape through an environmental infrastructure that connects the dismissed areas and housing projects in the North with the public spaces in the South, the square, the park, the ecological compensation site. The system of open space is conceived as a set of theme gardens that work together as a climate adaptation measure. These are gardens and floodable areas, continuous and contiguous rows of trees, squares with permeable and semi-permeable soils, gardens with trees and flowers, rustic meadows, reeds and green car parking lots.
Given the complexity of the issues and problems dealt with, the interventions are then accompanied by different actions:
a public debate process on the hydraulic and static safety of the canal;
a social innovation process about the reuse and transformation of the former station into company hubs, as a driver for the regeneration of dismissed areas.
a participatory workshop focused on the Neighbourhood House, the public spaces project and the community engagement through temporary uses;
a communication plan to let the citizens know about the transformations.

OUTCOMES, IMPACTS AND REPLICABILITY

The candidacy of Medicina, conceived ad hoc and without a previous project, gained one of the first places among the 30 runners-up of the call and the city is about to develop the executive design and to assign the works.
Co-design encouraged the exchange of skills among the stakeholders taking part to table. The officials and different designers called to cooperate managed to share tangible and intangible solutions of this process, which generated an incremental and multifunctional project, able to respond to environmental, social, urban and feasible need and requirements, to be implemented in phases, according to moments of verification and progressive monitoring. ■

11-12. Financial resources along the canal (Municipality of Medicina)
13. Stakeholders involved (Municipality of Medicina)

1

LOCATION
Slovenija

PROMOTER
RRA LUR, Regional Development Agency of the Ljubljana Urban Region

PARTNERS
RRA LUR, Regional Development Agency of the Ljubljana Urban Region, LUZ, d.d., Ljubljana Urban Institute

STAKEHOLDERS INVOLVED
- Municipalities (different municipal departments and services – for the spatial development, environment and nature protection, sports and tourism, investments)
- Sectors (various directorates, agencies and expert services of the Ministry of the Environment and Spatial Planning – for the environmental protection, nature conservation, water management and spatial planning)

STAKEHOLDERS INVOLVEMENT METHODS
Online participation

TIMEFRAME
January 2019 – April 2019

RESOURCES
Web platform, data (base map, data depending on the theme), team of various experts
Staff: Programmers, content creators (to develop structure and content), data managers (to prepare and collect data), communication and user-support team (during the participatory process), analysts

DESIGNERS
LUZ, d.d., Ljubljana Urban Institute

SOURCES
https://zilur.projekti.si
https://cpslur.projekti.si
https://cpsmol.projekti.si

CONTACT
gaja.trbizan@rralur.si

INTERACTIVE WEB PLATFORM FOR GREEN INFRASTRUCTURE PLANNING a tool for facilitating the participatory process

OVERVIEW

The interactive web platform was made as a tool to facilitate the participatory process while preparing the Green Infrastructure Strategy for the Ljubljana Urban Region. In order to maximize the legitimacy of the document, stakeholders have been involved in the process of preparation from the start. Since the continuous and regular involvement of the stakeholder group (in form of workshops, consultations, interviews etc.) was particularly demanding for the participating stakeholders, we wanted to enable them to cooperate directly from their posts and therefore we developed an online tool for the participation.

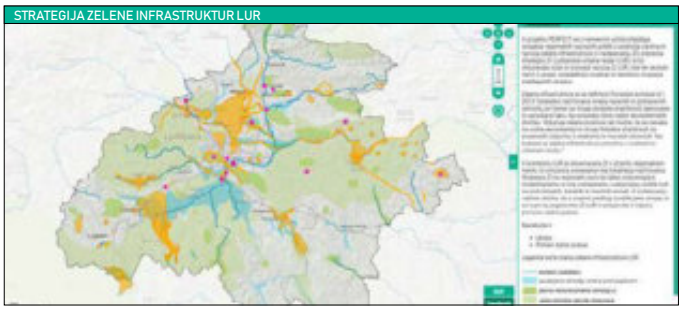
OBJECTIVES AND CONFLICTS

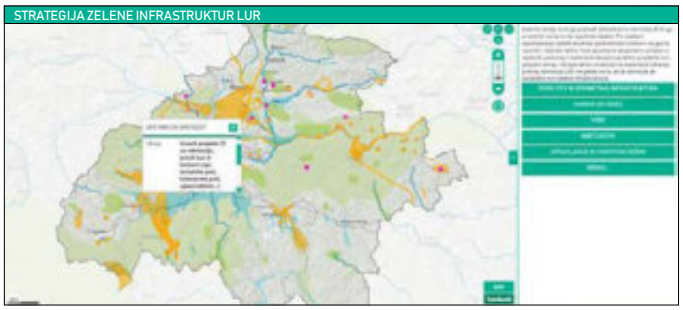
The key objective was participation of stakeholders (municipalities, ministries, state agencies and services) in the designing of activities, which is extremely important, as they are the ones responsible for implementing them. We used the web platform for interactive mapping of measure proposals and sharing of various good practices of GI projects. Web portal at the same time serves as a platform for facing different interests. Since the stakeholders have a different background (they cover different areas and topics at a different management level) the proposed interests, needs and opinions were sometimes complementary, even synergetic, but on the other hand sometimes conflicting as well.
The platform was used for: gathering measure proposals, confronting of different interest, selecting measures for further processing and integration of proposals into the strategy.

WORKING AND PARTICIPATORY METHODOLOGIES

Interactive web platform was developed by the Regional Development agency of the Ljubljana Urban Region (RRA LUR) and Ljubljana Urban Institute (LUZ) to facilitate the involvement of stakeholders in the process of preparation of regional strategies and policies. The platform structure was designed especially for the task of delivering measure proposals and good practices. Each user must register into the platform, which enables continuous data entry in multiple sessions for updating and modification of data. The system is based on graphical entries (interactive mapping) and allows precise description of the proposed measures: the description of the location, the explanation of the measure, previous activities leading to the implementation of the measure, the institution responsible for the implementation of the measure, sources for the financing, and the time frame of the implementation. The input area is limited to the region so that each municipality can make proposals for its area or the wider

1. Aerial photo of Ljubljana





2-4 . Graphic interface of web platform for green infrastructure
5. Instructions of web platform for green infrastructure

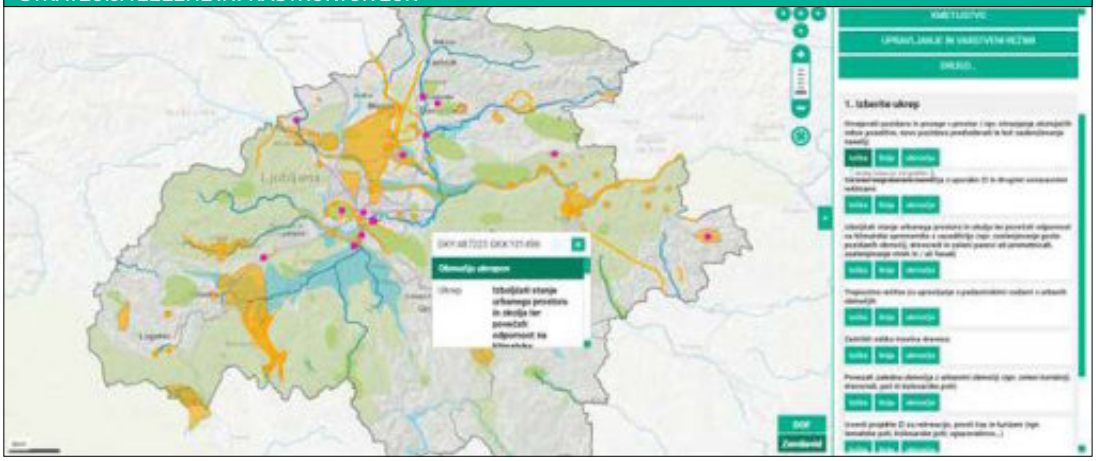
area of the region. All users can see the proposals from other participants and are able to add their own measures and comments, which encourages a dialog between them.
All the data entered is collected and can be used in different formats for analysis: numerical and graphical analysis and outputs – graphs and maps.
It was important to collect as much data as possible and include a wide spectrum of stakeholders to legitimize the strategy proposal. The participants' response was initially low, but after additional efforts were made to invite the right people (adjusting stakeholders list, sending reminders, making phone calls, organising a workshop etc.) the response rate was very good.

OUTCOMES, IMPACTS AND REPLICABILITY

The main purpose of the interactive web platform was to obtain a set of measures to ensure good quality of GI in Ljubljana Urban Region, but also a list of examples of good practices (as an inspiration). The platform served as the basis to gather different needs of municipalities, sectors and other stakeholders to improve GI in the region. Based on the proposals, it was possible to find out, which areas are most valuable for protection or development of GI and which of them are potentially conflicting. It was also possible to find out, which benefits of GI appear to be the most relevant in a certain area. Findings enabled us to propose a set of actions for the action plan in the Green Infrastructure Strategy.
As plans of different municipalities, sectors and other stakeholders are often not well known to everybody, the web platform allows all participants to be familiar with the plans of others involved in the process. It provides better cooperation between stakeholders and better insight into the plans and realisations of various institutions.
The web platform for GI planning was designed to gather proposals of different stakeholders. So far, the invitation to participate was sent to municipalities, to different sectors, but it is possible to distribute it to any target group, even the general public. It can be customized for different topics and different case study areas. In the Ljubljana Urban Region, the customization was done for the preparation of a regional SUMP (Sustainable Urban Mobility Plan), but it could be done for other topics as well. The tool and method can be easily adopted for any other area, region or country.

4

STRATEGIJA ZELENE INFRASTRUKTUR LUR



5

WEB PLATFORM OF GREEN INFRASTRUCTURE / INSTRUCTIONS

Stage 1: Designing the web platform
Choose the study area (eg. local community, city, region).
Prepare the base map and additional data to be used (depends on the chosen topic).
Predefine list of measures and group them into related themes (eg. measures for build-up areas with traffic and infrastructure, nature protection, water management, agriculture and forestry). Predefined areas and a list of measures help the participants to better focus on the topic and simplifies the work of analysts. Make it possible for participants to add their own suggestions of measures.
Decide, whether the registration to the web portal is necessary (registration allows modification of entries). In case of registration, include it into the portal design.

Stage 2: Invitation to participate
Define the group of participants (eg. municipalities, sectors, experts, others, such as general public).
Send invitations to participate (eg. via e-mail, but be sure, that the invitation is addressed to the right person). Explain the participants their role in the process.
Add the instructions for the use and phone contacts for more detailed information and technical support.
Be sure you have responsive staff assigned for support.

Stage 3: Selection of measures and interactive mapping
Participants choose the measure from the predefined list of measures.
Participants locate the measure on the map. They can choose between the “area”, “point” or “line” and draw the proposition on the map.
Participants fill in the table that includes detailed information about the chosen measure (eg. description or name of the location, the explanation of the measure, previous activities leading to the implementation of the measure, the institution responsible for the implementation of the measure, sources for the financing, and the time frame of the implementation).

Stage 4: List of good practices
Web portal allows submitting examples of good practices that have already been implemented in the area. Participants mark the area that they consider to be an example of good practice of the green infrastructure and add data describing the case.

Stage 5: Data analysis
An essential part after the collecting the data is the analysis. As the web portal aims to exchange expert opinions at various levels of governance and facilitate consultation with various actors, the aim is the preparation of the joint strategy. Therefore, data collected through the interactive web platform is processed and integrated into the Green Infrastructure Strategy of the Ljubljana Urban Region.

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GLOSSARY
BIBLI-OGRAFY
WEB SITES

GLOSSARY

Action Plan
It is a structured strategic document with Actions-Interventions-Projects; everyone of them will be detailed with the subjects responsible for their accomplishments, the type of commitments and the schedules.

Brainstorming
A group discussion, animated and open, aimed at comparing and generating ideas. Brainstorming is used to explore freely and sound out possible ideas and alternative solutions to known problems.

Charrette
It is a dynamic design methodology employed to lead a collaborative urban design process. In the Charrette, facilitators and technicians (architects, urban planners, designers, engineers, agronomists,...) work together with working groups of citizens or stakeholders interested in the transformation of an area. Thanks to a multidisciplinary debate among participants, negotiations take less time and the development of creative solutions is quickly achieved.
Charrette implies a shared elaboration of maps and cartographies.

Citizens' Agreement (or Collaboration Pact)
It is the agreement signed between citizens and public administration for the care of common good with the intention to improve people lives and in particular of the residents of a place. The Pact has legal value and its subscription presupposes the existence of a Common Good Regulation and the development of a process during which the parties' reciprocal commitments are defined, up to the formal subscription. The Collaboration Pact is inspired by the principles of subsidiarity.

Coaching
Coaching (mentoring and/or guidance) is a methodology applied to the innovation processes in which a person (called coach) supports a pupil (called coachee) in achieving a specific goal. A coach provides for a specific support for the acquisition of a higher degree of awareness, responsibility, choice, trust and autonomy.
In the context of urban, environmental or social regeneration processes, coaching can be carried on by a facilitator or a lecturer in relation to a stakeholder or group of participants interested in concrete experimental actions (e.g. reuse of a dismissed space, de-paving and gardening of a public green space, implementation of collaboration pacts for the management of an area).

Co-design
It is a process to develop a project (for public spaces, open spaces, buildings, design, services) in which design professionals encourage and guide participants to develop solutions together. Co-design encourages role-playing: user and designer are called to work on solutions together and the final output - which is the result of an exchange process - generates a more appropriate and useful project, tailored to the specific needs of those who will make use of it. In fact, it is generally acknowledged that the quality of the project increases when the stakeholders' interests are taken into consideration during the design process.

Collaborative governance
Governance is that mechanism for the process management aimed at giving full implementation to the strategic vision.
A Governance mechanism, to be effective, requires a cooperative attitude from all the parties involved.

Collaboration Pact (see Citizens' Agreement)

Common Good
The Commons, necessary for the individuals life or to defend interests of major importance, are characterized by the non-exclusion from the general use, for the non-privatization and the non-eligibility at a price for the compensation of their use. Commons are non-renewable resources such as Water or Forests, but also spaces and goods such as Parks, Gardens, Public Buildings or physical and digital Infrastructures.

Common Goods Regulation
It is an administrative act with the rules established and shared by Administration and Citizens in order to carry out the interventions for care of the Common Goods and the Shared Administration. The cooperation is expressed through the

adoption of Citizens Agreements or Collaboration Pacts, acts with a non-authoritarian nature and regulated by private law. This choice is the consequence of the equality of relations between citizens and administration in the context of the shared governance model based on subsidiarity. Citizens and administration are on the same level, they are allied in the fight against the complexity of problems, the scarcity of means, the increase of needs and they share responsibilities and resources.

Community Evaluation

It is the evaluation carried out by a community when evaluating itself, to understand its own needs and ambitions. It is developed through questionnaires and semi-structured interviews.

Consensus building

The word consensus comes from the Latin consensus, whose original meaning is 'with-feel' or feel together.
It is the process that allows people with different points of view to interact and collaborate to reach an agreement which is satisfactory to everyone. Consensus building is a group process that is articulated in different phases and can be implemented through a series of different techniques, aimed at identifying and analyzing problems and solutions until decisions are made, without resorting to voting.
To build consensus it is necessary to define the field of action, that is the principles and purposes of the system taken into consideration. The consensus-building process allows all the parties involved to demonstrate and represent their point of view and to reach plural solutions, where initial opinions represent a contribution that makes the process of self-creative learning more exciting.

DAD Syndrome – Decide-Announce-Defend

It is the defensive attitude expressed by institutions and policy makers – in the face of the electoral mandate - against a process of public consultation and confrontation which takes place after decisions are already made, planned with the technical offices and/or with the Institutions that it is necessary or mandatory to involve.
Classic examples of DAD syndrome are related to the implementation of infrastructures such as high-speed railway networks, highways, waste plants.

Debriefing

Structured group discussion aimed at analyzing a problem, a fact or an event.
In the participation processes, debriefing provides for progressive stages of confrontation through the participants point of view. The debate starts with an introduction to the theme, continues with the discussion of facts, personal points of view, objective problems and possible solutions. It ends with a summery and an informal post-debriefing phase.

Deliberative democracy

Public discussion process among free and equal individuals that definies a decision.
Deliberative democracy can be structured in institutional or informal arenas and is distinguished in negotiation deliberation (when stakeholders mediate their ideas in order to reach their goals and preferences) and dialogical (when stakeholders change their leanings during the confrontation in relation to the sharing of collective objectives or projects).
Deliberative democracy established that every single citizen can participate in the assemblies. Citizens are then informed by experts about the problem at stake to discuss it with each other until an agreement is fund.

Driver

It is the key element at the beginning of a process. With driver you can refer to people, places and events that - individually or together - trigger those engagement conditions and opportunities. In particular, in urban regeneration and reuse processes, a driver is that element that determines the motivation able to catalyze the participants interest and personal investment in terms of resources, time, dedication, challenge, networking.

Empowerment

Process to empower the individual and/or a group, based on the increase of self-esteem and self-determination that bring out the individuals awareness of their potential at several levels:

- psychological and individual;
- organizational
- social and of community.

European Awareness Scenario Workshop-EASW

It is a participatory design methodology born in Denmark to promote the debate on issues related to ecology and urban environment and, more generally, to stimulate social participation in sustainable development programmes.
During EASW the participants meet to develop a shared vision for the future of their community and to suggest ideas on how to achieve it. Participants must be representative of the local reality and are chosen from 4 different social groups of interest: citizens; experts of technology; public administrators; private sector representatives.
In the first phase, during the visions development, the participants work in the 4 homogeneous groups, according to the same social category. In the second phase, while developing ideas, the participants are mixed and debate on the possible solutions of the identified problems and on the subject(s) responsible for their solution.

Exploratory Walk (see Neighbourhood Walk)

Facilitator (or Moderator)
Person who supports a participation process, allowing all participants to express themselves and to confront one another. The Facilitator does not intervene directly on the contents of the confrontation, but facilitates it and moderates it by proposing a working methodology, questions, time schedule and rules.

Focus-Group
It is a semi-structured listening methodology involving a group of people (8-12 participants) to analyze a specific theme. The group participants can be homogeneous or have diversified skills.
The Focus-Group is applied to the initial phases of a participation process to gather information and to finalize the following stages of confrontation, participation, co-design, public debate.

Human resources
Ability of the individuals to be productive, competent, motivated and to have a collaborative attitude.

Interview
It is a listening methodology, semi-structured through previously prepared questions, which is addressed to a single individual or a group of people. The semi-structured interview is used in the early stages of a participation process to gather information or become familiar with or get to know the participants

Mapping
Identification and classification of stakeholders to involve in a participatory process or potentially interested.

Mediation
A voluntary process in which individuals face conflicts and disputes with the help of a neutral person.

Model Canvas
It is a tool to support the construction and feasibility evaluation of a shared project, borrowed from the economic world, but used today also in processes of reuse, welfare design and cultural services, environmental policies. The Model Canvas is a white sheet of large format on which there are empty fields to fill in group: idea/concept ; key elements (activities, partners, resources); collaborative network (target group and stakeholders role); communication channel; feasibility of the project (costs structure and revenue streams).

NIMBY Syndrome - Not In My Back Yard
It is the reluctant attitude manifested by local communities or the inhabitants of a neighbourhood, in relation to the fear of a transformation or a change with respect to the construction of new buildings, roads, plants, infrastructures, malls, urban developments, etc.

NIMO Syndrome- Not In My Office
It is the reluctant and boycotting attitude, lacking of a sense of responsibility, displayed by institutions or technical offices against a participation process, with respect to the potential conflicts and/or the responsibilities associated with it.

Neighbourhood Walk (or exploratory Walk)
Structured meeting that takes place in group and on foot, in the area subjected to a participation process. The Walk includes stops and follow-up meetings and/or interviews to local people. It is used in the initial stages of Urban Planning and/or Participatory Design processes of buildings and public spaces.

Open Space Technology- OST
It is a working methodology based on the self-organization and proactive ability of participants to discuss and confront starting from common ideas. OST is an 'open space' that is filled with ideas, proposals, visions of the participants. Public meetings organized according to the OST methodology do not have speakers invited to give a lecture or pre-defined programs. The participants themselves, seated in a wide circle and informed of some simple rules, create the agenda of the day, propose the subject for debate and discuss priorities starting from a question.

Outreach
It is the promotion and socialization action carried on at the beginning of a process, aimed at the participants involvement. With outreach you get in touch with people to ask for advice and information, without waiting for them.

Participated de-paving (bottom-up action)
Processes promoted by communities, citizens' groups and environmental activists with the intention to de-pave and regenerate open spaces and paved public spaces, bringing nature back to the city. De-paving actions are processes of community social innovation and adaptation to climate change. De-paving actions are always followed by participated

gardening, such as guerrilla gardening.
In order to actually start a participated de-paving action it is necessary to involve also the support of technicians (facilitators or mediators, gardeners, agronomists or landscape designers, environmental engineers or plumbers).

Participated gardening – Gardening-attack - Guerrilla-gardening (bottom-up action)

It is a form of political gardening, a non-violent action, mainly practiced by environmental groups. These movements are usually related to permaculture or problems concerning the Earth rights. The activists detect a piece of abandoned land, which does not belong to them, to let plants or crops grow. Certain guerrilla-gardening groups perform their actions (attacks) during the night, in relative secrecy, to plant and take care of a new lawn or meadow. Others work more openly, trying to involve local communities.

Participated urban forestry

It is a form of civic forestation, mainly carried out by citizens communities and environmental groups. These movements are usually connected to climate change issues, greenhouse gas emissions and air and soil pollution.
The activists work trying to involve local communities and schools in specific activities and during daily events for cleaning urban green areas and planting new trees.

Participatory democracy

Discussion process that involves the direct participation of the individuals who will take the decision.
Participatory democracy does not rely on elected representatives.

Participatory design process (or participation process)

It is a methodology structured in progressive phases, in which the terms and schedules of the stakeholders involvement are established in the context of a participation process. The process identifies the objectives, stakeholders, and methodologies that will be used in the debate, outputs, communication and monitoring tools. A complex process can generally be structured according to the following phases and activities: Mapping, Listening, Co-Design, Experimentation, Monitoring.

Participatory urban planning

It is a methodology to design plans and projects that assigns a significant value to bottom-up proposals, expressed by citizens in a free or associated form and by local stakeholders.
The complexity of social systems highlighted the interdependence of local stakeholders and weakened the representativity of parties and organizations, while direct forms of social representation (neighbourhood committees, environmental movement, consumer groups, youth movements, non-governmental organizations, third sector) got stronger.

Planning for Real

It is a methodology applied to a participatory urban design process. It is a complex process involving different professionals (architects, engineers, urban planners, sociologists, lawyers, etc.), who play the role of facilitators and coordinators, and the inhabitants of the study area, who are the players. The process leading to the final design decisions is articulated in different phases: making of a maquette, communication and exhibition in places where the community hangs out; debate on the intervention proposals; negotiation and choice of priorities; final decision making.

Public debate

It is a phase of the development process of major projects, which allows citizens to get information and express their points of views on the possible impacts and consequences of interventions. There are different models and approaches to Public Debate, but in principle the phases of this process are codified by administrative procedures that identify progressive detailed studies. With the Public Debate, the field of action and the proposal of the local communities is determined while making changes to a major public work, such as a highway, a railway or a harbour. The Authority or the administrative body, in the public debate, commit to respond to all observations and to investigate the solutions to improve the major works project.

Social Capital

Relational skills of the society aimed at collaborating to the development of its individual and collective purposes.

Simulation-game

It is a training methodology for learning through an interactive playful debate. Simulation-games are used in the field of territorial and urban planning, and aim at the making of visions, scenarios and projects in the fields of urban design, environment and urban sociability.
Players who participate experience forms of interaction within a protected environment and – through a gaming mode – learn and interact with each other to gain resources.
With the simulation-game methodology it is possible to explore the urban dynamics in relation to either the intangible networks (human capital, social capital, economic capital) and either the decision-making processes that modify the physical space (public spaces, urban green, buildings and infrastructures).

Stakeholders

Parties with direct interests (owners, beneficiaries, users) or indirect interests (social, environmental, cultural) involved and/

or potentially interested in a participatory process. Stakeholders can be individual citizens or organized groups, owners of an area or an asset, beneficiaries, managers.

Stakeholders engagement

Mapping activities and stakeholders involvement in the context of a participation process. It is a delicate activity whose usefulness is encouraging the participants interest to be present and motivated during the process. Engagement is all the more effective when a person considers the project/process as its own.

SWOT Analysis – Strengths – Weaknesses – Opportunities - Threats

It is a strategic planning tool used to assess the Strengths, Weaknesses, Opportunities and Threats of a project or plan in the context of a decision-making process.
The first two points refers to the present, the second ones on the future.

Temporary Use (Process of)

It is an experimental practice to reactivate unused or dismissed spaces, reversible and temporary, through which a community develops collaborative skills and tests the interest and concrete feasibility for the transformation of a place according to people needs and opportunities for reuse and transformation.

Urban Center

It is an Administration office that carries out a public service in support of civic participation initiatives, for the improvement of public spaces, and urban and territorial policies for the care of the communities.

Vision - Strategic Vision

In the participation processes related to urban and environmental plans and projects, a vision indicates the long-term scenario to aim for. This scenario is shared by all stakeholders and is able to affect the process positively or negatively.
A strategic vision has to respond to three needs:
to provide a long-term stable future;
to make the most of the synergies and positive effects of each action and each party immediately involved;
to guide citizens expectations and behaviours, in order to ensure the consistency between programmes and results, by maximising, in the community, the awareness, the sense of belonging and the approval of the transformations.

World Café

It is a creative process that facilitates dialogue and sharing of ideas. The process recreates the atmosphere of a coffee-shop, the participants discuss in small groups and consecutive cycles, in order to analyse all topics.

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RETHINKING GREEN INFRA-STRUCTURE

CASE STUDIES PARTICIPATION TOOLS AND STAKEHOLDERS INVOLVEMENT PROCESSES