

### EDITORIAL

Welcome to the first issue of the HOMBRE newsletter. The HOMBRE newsletter will be a vehicle for spreading the activities of the project to the stakeholder community and gives a summary of the project, upcoming events and announcements. Our newsletters we will have a “series on the HOMBRE cases” where short descriptions of a HOMBRE case study sites are presented. This issue presents the Genoa case as our first example. In this issue we will also take the opportunity to present some of the work being done within the HOMBRE

consortium in the Brownfield Roadmap and Framework for Zero Brownfields, integration of technologies and a practical decision making instrument “Brownfield Navigator”.

Please visit the web site [www.zerobrownfields.eu](http://www.zerobrownfields.eu) in order to learn more about HOMBRE in general, and to get detailed information on upcoming events, e.g. stakeholder workshops and conferences, related to Brownfield regeneration and how HOMBRE proceeds.

## HOMBRE – HOLISTIC Management of Brownfield REgeneration Urban redevelopment – Brownfield regeneration

Today most of us perceive brownfields (BF) as a legacy of the past. Yet our urban landscape expands at an ever increasing rate and we travel ever increasing distances across this landscape. Perhaps in our urban sprawl we are already busy creating the brownfields of tomorrow. These might be different from the post-industrial brownfields of today but will nonetheless be exploited and abandoned land. The concept of ‘zero waste’ has ushered in a paradigm shift in attitudes to resource use. The same paradigm shift is long overdue in attitudes to land use. HOMBRE has been launched project to bring about and enable a paradigm shift to ‘zero brownfields’. It is a Collaborative Project carried out under the *Seventh Framework Programme THEME FP7 ENV.2010.3.1.5-2: Environmental technologies for Brownfield regeneration*, Grant Agreement Number 265097. It has been running since December 2010 and will end in November 2014. The consortium consists of 14 institutions from 8 countries across the EU. Our strategic goal is to stimulate a greater dividend from BF regeneration for environment, economy and society, to support more sustainable development. HOMBRE will provide:

- Better understanding *why, how, where* and *when* BF’s are formed in order to avoid future BF’s, for different areas in the EU and across three main domains: urban, industrial and mining areas,
- Better planning and more attractive communication technologies, that allow more holistic appraisal of BF regeneration options and early stakeholder involvement,
- Better operations, better implementation of state of the art technologies, and development of innovative technology combinations for more sustainable integrated BF regeneration,
- Better and more creative solutions for the long-term land use of current and potential future BF’s.

Hence HOMBRE aims to HOLISTIC Management of Brownfield REgeneration, and will provide the scientific and technical backbone to support four very simple ‘zero-brownfield’ concepts:

**Land-use life cycle:** Land is the ultimate finite resource. It is also a resource that is in a cycle of use. Brownfield land can be a stage in this cycle, but for many economic, environmental and social reasons it is important that future brownfield generation is prevented, and where land is already brownfield its re-use is accelerated.

**Intermediary land use:** The best management solution is prevention, following that is remediation (where some processes are needed to bring land back into suitable re-use). Sometimes its helpful to find some form of intermediary land use for such abandoned land to support a recovery in land value. The land can there be gradually restored until it can be fully re-integrated into the land use cycle.

**Added value by combining technologies:** Integrated solutions offers a great opportunity to surmount the costs barrier by sharing the land management costs with other services and opportunities for society such as renewable energy and urban green space and climate control. The potential for revenue from diverse renewable energy / climate control technologies from ground source heating and cooling to bio-energy may provide revenue opportunities to enable remediation.

**‘Zero Brownfields’:** For any site come benefits and responsibilities for several stakeholders. A more intelligent design for brownfield management potentially brings important sustainability benefits and receives the duration of disuse and hence Brownfields generation. For the planet there may be benefits of better resource optimization and lower impacts from land management; for people there may be societal benefits from a better urban landscape and for profits there may be economic benefits from avoiding the ‘over-design’ of standalone remediation solutions.

HOMBRE will bring credible approaches that will help communities plan land use to reduce the creation of brownfields in the future, and a series of integrated technical solutions that enable the re-use of brownfield sites that already exist.

## A spot on HOMBRE cases: Italy – Genoa- Polcevera site

### What is the case about?

Polcevera Stream valley is an important link between the eastern and the western part of the city of Genoa, in Northwestern Italy. Genoa is part of an important transit for the north-south transport of goods, especially along the European corridor 24 Genoa-Rotterdam. Despite tumultuous recent history of urban and industrial development, the Polcevera valley still shows obvious signs of a not so distant past characterised by agricultural and light manufacturing activities. Last but not least, this corridor also represents one of the most used migratory routes followed by birds (but also insects and larvae) during their annual migrations from the African continent to the Great Plains of the Eurasian continent.

At the moment the Polcevera stream delta is a heavily urbanized area, inside the borough of Cornigliano, with a steel industry brownfield lying to the west of the stream for about 6 ha. An old 17<sup>th</sup> century historical building, Villa Bombrini, is sited adjacent to the area.

The Polcevera delta project seeks a complete restoration of the area and a connection between the stream and a garden/recreational area that is planned on the western bank in coming years.



### How did the case become a Brownfield?

The area used to contain steel factories that ceased production in the 90's, caused by loss of a competitive position to 'low salary countries' (India, China) and also stricter environmental laws. A Pressure group 'the Cornigliano mothers' wanted to have furnaces closed due to the high problems with air quality. Partly the Italian government provided funds to close the factory and move the workers to another location.

In 1996 the production of iron stopped and the site become disused. In 1998 the region created a "green buffer zone" along the margins of the site, because this was the easiest and cheapest solution at that moment.

### What are the most important issues?

#### Project drivers:

- **Political:** the Regione Liguria wants a new 700 bed hospital on the riverbank on the Brownfield sites. The Genoa Municipality made a Municipality Urban Plan (PUC) specifying commercial and multiple service areas along with green areas. Nowadays the PUC is still discussed by the stakeholders and final approval is expected in 2012.
- **Economic:** depending on the future of port activities and industries, the site may find new role, especially as link area between port and motorways. A new network of roads will cross the area, a two-lane street running along the river, a new railway and a new main road along the sea, crossing the delta to the south. Their aim is to reduce the traffic pressure on Cornigliano Borough and to connect quickly highways and port facilities. The new network of roads is planned to be completed by 2015.
- **Social:** the expectations of the local community are very high, in terms of urban requalification, with new spaces being devoted to commercial activities and green areas. A stakeholder and local community involvement project held by the municipality was scheduled to start in November 2011 and will give first feedback in 2012.

#### Benefits:

- A new gate for the city to the inland, a new perception of the entire Cornigliano Borough.
- A new engine for a sustainable remediation and a model for future projects.
- A stepping stone in the ecological network of the city and for the Rete Natura 2000 network.

This case is not a real brownfield (BF) is not abandoned. The regeneration project has already started and part of the area is still in use. However, since the problems and plans for this area are very diverse and still disputed, a tool like the Brownfield Navigator (BFN), could be very useful to clarify opportunities and implications of certain measurements for the area. Also, the problems found in this case are for other BF cases in Europe, so it might be able to serve as a good guidance case within the HOMBRE project.

## Strategic management products

### The Brownfield Roadmap and Framework for Zero Brownfields

HOMBRE is developing practical, science based guidance to deliver the concept of a land cycle as a working system for planners and land managers. The strategy will be based on indicators for early recognition of why, how, and when Brownfields come into existence, as well as on finding indicators that signal potential for sustainable, cost-effective and timely site renewal. By monitoring these indicators, timely intervention may avoid Brownfield formation or at least mitigate the negative effects. It will ensure that scarce resources are focused on solving genuine problems, e.g. by avoiding unnecessary remediation, and on creating long lasting opportunities. The final Framework will incorporate the experiences obtained from the HOMBRE case studies, market and stakeholder guidance on all methodologies and technologies developed, and a policy brief on Brownfield regeneration.

### A practical decision making approach: Brownfield Navigator

HOMBRE is developing integrated stakeholder communication and decision support technology for the selection of optimal Brownfield regeneration options, approaches and technologies of decision making. This will apply a set of common principles but support their use at different geographical scales and different stages in land management decision-making. For example, during the planning phase there is a need for more elaborate and integrated decision making tools and processes that help stakeholders to 'navigate' holistically towards a successful Brownfield regeneration across an area. The Brownfield Navigator will enable to assess the key environmental, economic and social aspects of Brownfield regeneration scenarios in either local or regional contexts. It will integrate a set of rules and principles from HOMBRE's strategic guidance; GIS technologies using the 'design table' visualization approach to support interactive and cross sectoral decision-making.

### Integration of technologies:

A 'treatment train' is a term to describe how different technical approaches can be combined to offer an enhanced benefit. HOMBRE is exploring treatment trains in two contexts: the 'hard' built environment context, and a 'soft' re-use context linked to urban greening and/or bio-energy production:

- Train1 Energy and water, where energy re-use and contaminated water restoration are combined.
- Train 2 Building materials and soil, where resource efficiency and contaminated soil management are combined.
- Train 3 Soil and water, where remediation and sustainable urban drainage and soil capacity building are combined.
- Train 4 Urban greening and restoration, where the benefits of remediation and urban green space are combined.
- Train 5 Bio-energy and remediation, where combining organic matter recycling and bio-energy production provides a solution and revenue for abandoned land.

## HOMBRE – First Stakeholder Workshop – 02 -03 November 2011



HOMBRE held its most recent , the General Assemble (GA) in the beginning of November 2011, combined with its First Stakeholder Workshop of HOMBRE in Brussels, Belgium. More than 30 participants attended this meeting, including associates from municipalities, members from the advisory board, coordination team of the TIMBRE project and researchers from the HOMBRE project.

The main purpose of the General Assembly was to inform participants about work to date, discuss progress and results being reached in 2011 and plan activities for 2012 with the work package leaders. A “speed dating” session was held to link members of the Advisory Board and the different work package teams. Opportunities for collaboration were identified and advisory board members indicated which work package they want to champion.

Stakeholder involvement was a principal aim of the workshop. Stakeholders are of major importance for the HOMBRE project, for example to discuss the various HOMBRE pilot cases. Their experience, knowledge and demands also provide essential inputs to the project as a whole and to steer the development of functional outputs for Brownfield regeneration. Three subjects were discussed during the 1.5-day workshop. The first part of the workshop was about indicators that enable early recognition and better understanding of brownfields. This gave insight on the types of indicators that are used or helpful for three HOMBRE cases.

The second subject was about identifying opportunities, services and benefits for development of green re-use technologies (e.g. biomass-energy, open space), and defining generic target groups.

This considered in particular soft reuse technologies, and gave the researchers of the project a better understanding about bottlenecks and benefits. The last subject – Brownfield Navigator (BFN) was presented and its further developments have been discussed.

The developing collaboration between TIMBRE and HOMBRE was cemented by the signing of a joint Memorandum of Understanding by both coordinators.



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