



timbre

Tailored Improvement of
Brownfield Regeneration
in Europe

Third report on TIMBRE end-user publications

Lead author	Stephan Bartke	Report short name	WP7 publication D7.7
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Report on TIMBRE end-user publications

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1. Introduction

The TIMBRE project shall overcome existing barriers to brownfield regeneration by developing and providing customised problem- and target-oriented packages of approaches, technologies and tools. As a unique asset, these packages shall deliberately include the cultural and administrative characteristics and their regionally distinctive features. By providing a customisable toolbox specifically addressing the diverse processes that have to be dealt with during the course of a regeneration project, end-users shall be enabled to find best practice based solutions. Improvement of existing means to support brownfield regeneration shall be further accomplished by filling methodological core topics such as intelligent remediation in terms of technological advancements with regard to phytoremediation and partial source removal technologies. The project shall deliver a tailored training and dissemination programme as part of an information centre that will transfer existing and emerging knowledge to the scientific community and end-users.

In order to achieve a widespread acceptance and utilization of the results (products) that TIMBRE will emerge, a series of tailored supporting measures for specific end-users shall be developed in work package seven (WP7) of the project. For each result adequate packages have to be designed according the requirements of different target groups. Furthermore appropriate approaches are needed that increase the visibility of TIMBRE products throughout Europe and beyond underpinning the leading position of European actors in the area of sustainable brownfield regeneration technology.

The development of formats for tailored supporting measures and the organisation and realisation of supporting measures are a key task of WP7. In the duration of the TIMBRE project, activities for potential end-users are planned to include them actively into the development and final design of the TIMBRE outcomes. In order to ensure the dissemination of the TIMBRE activities and outcomes beyond the group of end-users directly addressed in specific events, all TIMBRE events will be documented by specific publications for other potential end-users. These comprise workshop synthesis papers, multimedia material and policy-related dissemination, case studies for the demonstration of successful technology application, best practice examples, guidelines, and standard operation procedures for proposed approaches and technologies.

The purpose of this dissemination report is to take stock on the status with regard to publications prepared in TIMBRE in project months 27-38 (i.e. between March 2013 and February 2014). This report is following-up on the first report as of project month 14 (i.e. February 2012) and the second report as of project month 26 (i.e. February 2013) – both are available on the TIMBRE website at <http://www.timbre-project.eu/outcomes.html>. According to the DoW, five publications shall be released per year. At the beginning of the project, the publications strived at presenting the project and initiating a mutual learning of researchers in the project and stakeholders as target groups of the events. Publications in this second term continued on this and were to describe more in focus approaches, methods, and technologies developed in TIMBRE for end-users. The publications in this final project period include more detailed descriptions and disseminations on the approaches, methods and technologies developed in TIMBRE for end-users. The publications were clearly to address their practicability and windows of application for real cases. Knowledge gained from the case studies conducted was disseminated.

2. Overview of publications

Table 1 below provides an overview of publications that have been or are currently prepared and used for dissemination. After the overview, exemplarily five key publications will be presented in more detail. Further details can be found on the TIMBRE website: www.timbre-project.eu and on the specific websites mentioned below.

Table 1: Overview on TIMBRE publications as per 26th February 2014:

Publication Type ^a	Date	Targeted audience ^b	Language ^c	Details / Reference	Responsible / Involved
Article	02/13	Researchers and brownfield community	EN	Frantál, B., Kunc, J., Nováková, E., Klusáček, P., Martinát, S., Osman, R. (2013): Location Matters! Exploring Brownfields regeneration in a Spatial Context (Case Study of the South Moravian Region, Czech Republic). Moravian Geographical Report, 21 (2): 5-19. Available at http://www.geonika.cz/EN/research/ENMgr/MGR_2013_02.pdf	IOG
Article	2013	Researchers and brownfield community	EN	Klusáček, P., Krejčí, T., Martinát, S., Kunc, J., Osman, R., Frantál, B. (2013): Regeneration of agricultural brownfields in the Czech Republic – Case study of the South Moravian Region. Acta Univ.Agric. Silvic. Mendel. Brun. Vol. 61/2, 549-561 Available at http://acta.mendelu.cz/pdf/actaun201361020549.pdf	IOG
Book chapter	2013	Research	EN	Bartke, S., Rizzo E., Pizzol L., Giubilato E., Critto A., Marcomini A. (2013): “Improvement of brownfield regeneration in Europe through tailored information platform, communication, prioritization and assessment”, in CABERNET monograph “Innovative solutions for revitalization of degraded areas 2012”.	UNIVE, UFZ

Publication Type ^a	Date	Targeted audience ^b	Language ^c	Details / Reference	Responsible / Involved
Flyer for TIMBRE events in Brno	03/13	Scientific community, European policy makers, companies	EN	Fatin-Rouge, N. Ahmed Mohamed, M. "Soil-flushing with reused surfactant-foams"	UFC
WP4 poster presentation	03/13	Science, research, higher education	EN	ATV vintermøde (ATV Winter meeting) - presentation concerning the Tree coring Technology	DTU
WP2 Poster	03/13	TIMBRE consortium & guests	EN	F. Alexandrescu and A. Bleicher "Decision structures and local culture: Investigation of administrative possibilities and site specific attitudes of stakeholders."	UFZ
WP2 Product leaflets	03/13	TIMBRE consortium & guests	EN	F. Alexandrescu and A. Bleicher <ul style="list-style-type: none"> • "Transdisciplinarity in Practice: The Emergence and Resolution of Dissonances in Collaborative Research Projects on Brownfield Regeneration" • "Socially relevant interventions for fostering Brownfield regeneration in the Czech Republic, Poland and Romania." • "Moving beyond Europeanization – Towards an Understanding of Brownfield Regeneration in Eastern Europe as an Emerging Strategic Action Field" All three were distributed during the Timbre AM in Brno	UFZ
Webpage	03/13	General Public, Research, regulation, practice, industry	EN	Mathematical models (MS42) http://homepage.env.dtu.dk/stt	DTU

Publication Type ^a	Date	Targeted audience ^b	Language ^c	Details / Reference	Responsible / Involved
TIMBRE Deliverable D4.1	03/13	TIMBRE, EU	EN	Updated site knowledge status (database and site model) as a result of integrated DP, SSP and (potentially) plant investigations	FC, UTBC, IETU, DTU, UFC, SG
TIMBRE Deliverable D5.2	03/13	TIMBRE, EU	EN	Cost- and environmentally friendly strategies to recycle building rubble, relevant factors for estimation of costs and assessment of re-use or deconstruction of buildings	GE, IETU, UTBC, UFZ, SG
WP5 poster for GA	03/13	TIMBRE	EN	Deconstruction and re-use of structures and materials	GE, IETU, SG, ZGH
WP3 presentation at workshop	03/13	Czech stakeholders	CZ	Seminář Environmentální aspekty regenerace brownfields, 7.-8. března 2013, VŠB-TUO Ostrava. Příspěvek: „Představení nástroje vytvořeného v rámci projektu TIMBRE na podporu prioritizace brownfields“. (Klusáček, P., Frantál, B., Kunc, J., Martinát, S., Osman, R., Zabeo, A.)	IOG
Article	03/13	Regulation, consultants, Research	DE	Finkel, M, Bartke, S. (2013) "Integrierte Planung und Bewertung von Nutzungsstrategien für Brachflächen" in altlastenforum info 1/2013, 4-9	TUB, UFZ
Invited lecture	03/13	Higher education	EN	Bartke, S. (2013): Contaminated Land - Impact on Value. Lecture in master course on planning at School of Environment and Development, University of Manchester.	UFZ
Presentation	03/13	Research, Science, higher education	EN	Bartke, S. (2013): An Institutional Economic Approach to Sustainable Urban Land-Use, in Seminar Series Planning and Environmental Management at University of Manchester	UFZ

Publication Type ^a	Date	Targeted audience ^b	Language ^c	Details / Reference	Responsible / Involved
Presentation	04/13	Research, Science	EN	8 th International Groundwater Quality Conference, Gainesville, Florida, 24 April 2013; Finkel, M., Schädler, S., Morio, M.: Design and evaluation of mixed land-use options for sustainable and brownfield management	TUB
Presentation	04/13	Research	EN	AquaConSoil 2013, Barcelona, 18 April 2013; Morio, M., Schädler, S., Finkel, M.: Applying stakeholder-based spatially explicit multi-criteria optimization for creation of sustainable and cost-beneficial brownfield re-use visions.	TUB
Presentation and Full Paper	04/13	Research	EN	AquaConSoil 2013, Barcelona, April 2013; Rizzo, E., Pizzol, L., Giubilato, E., Critto, A., Marcomini, A., "Timbre Expert System For Choosing Sustainable Solutions Of Risk Based Approaches And Technologies For Brownfield rehabilitation".	UNIVE
Timbre conference presentation and proceedings	04/13	Research, Higher education, Public authorities, Companies Site owners	EN	Janusz Krupanek, Mariusz Kalisz, Justyna Gorgoń, Beata Michaliszyn, Marcel Stalder, Eugen Martac, Peter Hageman, Michael Finkel, Max Morio, Sebastian Schädler, Tailored And Integrated Approach to Management of Degraded Megasites – Former military air base example 14-19th of April – AQUACONSOIL 2013, Barcelona, Spain	IETU, SolGeo, Fugro, TUB
WP4 poster at conference	04/13	Research, Higher education, Public authorities	EN	Iterative Site Model Improvement based on Adaptive Integrated Characterisation Strategies and Technologies as Prerequisite for a Successful Design of Site Remediation and Redevelopment, Poster at AquaConsoil, Barcelona.	FC, IETU, SG, DTU

Publication Type ^a	Date	Targeted audience ^b	Language ^c	Details / Reference	Responsible / Involved
WP4 presentation at conference	04/13	Research, Higher education, Public authorities	EN	Tailored and Integrated Approach to Management of Degraded Megasites – Former Military Air Base Example, Presentation at AquaConsoil, Barcelona.	IETU, FC, SG, DTU
Presentation and paper	05/13	Research	EN	Democratization through Social Activism: Gender and Environmental Issues in Post-Communist Societies - Political Science International Graduate Conference, Bucharest, 16-17 May 2013: Klusáček, P., Martinat, S., Alexandrescu, F., Bartke, S.: Perceptions and Actions of Public Administration Actors on Brownfield Regeneration in Central and Eastern Europe	UFZ, IOG
Presentation	05/13	Regulators, Site owners, Municipalities, Scientific community, policy makers	EN	Bartke, S. (2013) "Tailored Improvement of Brownfield Regeneration" at The National Brownfields 2013 Conference, Atlanta, GA, on May 15-17, 2013.	UFZ
Guest-Editorial	05/13	Scientific community, European policy makers	EN	Bartke, S. (2013) "Improving brownfield regeneration - a sustainable land take solution" in Science for Environment Policy Thematic Issue 39: Brownfield Regeneration. http://ec.europa.eu/environment/integration/research/newsalert/pdf/39si.pdf	UFZ
Presentation	06/13	Local stakeholders and policy makers, companies	EN	HOMBRE meeting, Solec Kujawski 2013: Ahmed Mohamed, M., Fatin-Rouge, N. "Flushing testds with reused fluids for the remediation of a creosotes-contaminates soil in Solec Kujawski"	UFC

Publication Type ^a	Date	Targeted audience ^b	Language ^c	Details / Reference	Responsible / Involved
Presentation	06/13	Local stakeholders and policy makers, companies	PL	HOMBRE meeting, Solec Kujawski 2013: Krupanek, J., Bartke, S. "timbre – Racjonalne usprawnianie przekształcania terenów zdegradowanych w Europie"	IETU, UFZ
Hand-out	06/13	Local stakeholders and policy makers, companies	PL	HOMBRE meeting, Solec Kujawski 2013: Krupanek, J., "Tailored Improvement of Brownfield Regeneration in Europe Racjonalne usprawnianie przekształcania terenów zdegradowanych w Europie Teren powojaskowy w Szprotawie"	IETU
Teaching material	06/13	PhD-students	EN	Divers teaching materials for a summer school on Modeling plant uptake of chemicals: Application in science and engineering → http://www.andrea-kubitz.de/timbre/en/lyngby-summer-school-2013.html	DTU
Flyers for TIMBRE events	07/13	General Public, regional experts	EN PL	www.timbre-project.eu	DTU, IETU
Flyer for TIMBRE events in Szprotawa	08/13	Scientific community, European policy makers, companies	EN	Fatin-Rouge, N. Ahmed Mohamed, M. "Soil-flushing with reused fluids".	UFC, IETU
Article	08/13	Research	EN	Algreen M., Trapp S., Rein A.: Phytoscreening and phytoextraction of heavy metals at Danish polluted sites using willow and poplar trees. Environ Sci Pollut Res. pp. 1-10. Published with open access at Springerlink.com.	DTU

Publication Type ^a	Date	Targeted audience ^b	Language ^c	Details / Reference	Responsible / Involved
Article	08/13	Research as well as brownfield community	DE	Schädler, S., Maier, M., Morio, M. Bartke, S., Bleicher, A., Bielke, A., Grabs, S., Freygang, M., Finkel, M., 2013. Planung und vergleichende Bewertung von Nutzungsoptionen auf Brachflächen mit der Megasite Management Toolsuite (MMT). Altlastenspektrum 04/2013, 145-153.	TUB, UFZ, GESA
Article	09/13	Academics and brownfield community	EN	Mohamed, M.A., Efligenir, A., Husson, J., Persello, J., Fievet, P. and Fatin-Rouge, N. (2013): Extraction of heavy metals from a contaminated soil by reusing chelating agent solutions, Journal of Environmental Chemical Engineering 1(3), 363–368	UFC
Article	09/13	Academics and brownfield community	EN	Efligenir, A., Mohamed, M.A., Fievet, P. and Fatin-Rouge, N. (2013): Reusing chelating agents to wash metal-contaminated soils, Journal of Environmental Chemical Engineering 1(3), 448–452	UFC
Article	09/13 (acc)	Academics and brownfield community	EN	F. Alexandrescu, A. Bleicher and Vivien Weiss. "Transdisciplinarity in Practice: The Emergence and Resolution of Dissonances in Collaborative Research on Brownfield Regeneration". Interdisciplinary Science Reviews	UFZ

Publication Type ^a	Date	Targeted audience ^b	Language ^c	Details / Reference	Responsible / Involved
Cordis news	09/13	General Public	EN DE ES FR IT PL	<p>Blueprint for reusing Europe's old industrial sites: http://cordis.europa.eu/news/rcn/36078_en.html</p> <p>Entwurf für die Revitalisierung alter Industriestandorte in Europa http://cordis.europa.eu/news/rcn/36078_de.html</p> <p>Un plan para la reutilización de los terrenos industriales abandonados de Europa http://cordis.europa.eu/news/rcn/36078_es.html</p> <p>Un plan d'action pour la réutilisation d'anciens sites industriels en Europe http://cordis.europa.eu/news/rcn/36078_fr.html</p> <p>Progetto per riutilizzare i vecchi siti industriali d'Europa http://cordis.europa.eu/news/rcn/36078_it.html</p> <p>Strategia ponownego zagospodarowania obiektów przemysłowych w Europie http://cordis.europa.eu/news/rcn/36078_pl.html</p>	UFZ
WP4 poster at stakeholder workshop	09/13	Stake holders, regional experts	EN	Phytoscreening by tree coring- Used for Chlorinated solvents and Heavy metals -	DTU
WP4 poster at stakeholder workshop	09/13	Stake holders, regional experts	EN	Phytoscreening- and remediation: Low-cost, simple and green technologies	DTU
WP4 presentation at stakeholder workshop	09/13	Stake holders, regional experts	EN	Phytoscreening by Tree coring - a site characterization tool within soil pollution	DTU
WP4 presentation at stakeholder workshop	09/13	Stake holders, regional experts	EN	Phytoscreening results - Obtained by Tree Coring, Szprotawa 2012	DTU

Publication Type ^a	Date	Targeted audience ^b	Language ^c	Details / Reference	Responsible / Involved
WP4 presentation at stakeholder workshop	09/13	Stake holders, regional experts	EN	Phytoremediation: A green solution	DTU
WP4 poster at stakeholder workshop	09/13	Stake holders, regional experts	EN	Soil and Groundwater Pollution by Kerosene, Szprotawa Airbase, Poland - Site Characterization using Soil-Gas Investigations	SG, IETU, FC, DTU
WP4 presentation at stakeholder workshop	09/13	Stake holders, regional experts	EN	Background on Soil-Gas Investigations	SG
WP4 presentation at stakeholder workshop	09/13	Stake holders, regional experts	EN	Interpretation of soil-gas data Szprotawa case study	SG
WP4 leaflet for stakeholder workshop	09/13	Stake holders, regional experts	EN	Soil-Gas Measurement - Investigating Volatile Pollutants in the Subsurface	SG
WP3 paper in proceedings		Scientists and researchers	CZ	Malachová, A., Kunc, J. (2013): Developerské projekty brownfiels: případové studie z Brna. Sborník příspěvků ze XVI. mezinárodního kolokvia o regionálních vědách. Masarykova Univerzita, Brno, s. 245-255 http://is.muni.cz/do/econ/soubory/katedry/kres/4884317/Sbornik_2013.pdf#page=245	IOG
Flyers for TIMBRE workshops	09/13	General Public, regional experts	EN CZ	www.timbre-project.eu	UFZ, IOG

Publication Type ^a	Date	Targeted audience ^b	Language ^c	Details / Reference	Responsible / Involved
Invited Key-Note	09/13	Research, regulation, practice, industry	EN	Bartke, S. (2013): Urban Regeneration and Brownfield Remediation Addressing Challenges for Tailored, Integrated and Sustainable Urban Land Revitalization, 5 th International Contaminated Site Remediation Conference, Melbourne, Australia	UFZ
Presentation	09/13	Research	EN	GLOCOM Training Session, September 2013, Beijing, China. Rizzo, E., Pizzol, L., Giubilato, E., Zabeo, A., Critto, A., Cosmo, L., Marcomini, A.: "Sustainable brownfield regeneration in Europe: approaches and tools".	UNIVE
Presentation	09/13	Research, regulation, practice, industry	EN/IT	SURF Italy Day – La sostenibilità delle bonifiche", September 2013, Ferrara, Italy Rizzo, E., Pizzol, L., Giubilato, E., Critto, A., Marcomini, A.: "Timbre Expert System for choosing sustainable solutions for brownfield rehabilitation".	UNIVE
Presentation	10/13	Research	EN	GLOCOM Training Session, October 2013, Beijing, China. Rizzo, E., Pizzol, L., Giubilato, E., Zabeo, A., Critto, A., Cosmo, L., Marcomini, A.: "Risk based approach for sustainable brownfield regeneration and remediation in Europe."	UNIVE
Presentation	10/13	Research	EN	SARCLE-2013/CSME-2013, October 2013, Amsterdam, The Netherlands. Pizzol L., Rizzo E., Giubilato E., Critto A., Marcomini A., "TIMBRE Expert System to Support the Effective Management of Contaminated Sites and Brownfield Rehabilitation Processes"	UNIVE

Publication Type ^a	Date	Targeted audience ^b	Language ^c	Details / Reference	Responsible / Involved
WP3 presentation at workshop	10/13	Czech stakeholders	CZ	Seminář Finanční aspekty a management regenerace brownfields, 10.-11. října 2013, VŠB –TUO Ostrava, Příspěvek: „Demonstrace možností využití webového nástroje pro prioritizaci brownfields (vybrané výsledky mezinárodního projektu TIMBRE“. (Klusáček, P., Frantál, B., Kunc, J., Martinát, S., Osman, R.)	IOG
WP3 presentation at scientific workshop	10/13	Czech and Slovak geographers	CZ	18. Česko-slovenský seminář z geografie, 23.-24. října 2013, Inovativní trendy a přístupy v geografickém výzkumu v České republice a na Slovensku. Příspěvek: „Webový nástroj na prioritizaci brownfields.“ (Klusáček, P., Kunc, J., Frantál, B., Martinát, S., Osman, R.)	IOG
Internal UFC communication	10/13	General public	FR	Fatin-Rouge, N. Ahmed Mohamed, M. http://tout-l-ufc.univ-fcomte.fr/index.php?id=actualite_7010_70_1&art=10880	UFC
WP3 presentation at scientific workshop	11/13	Scientists and researchers	CZ	Mezinárodní vědecká konference Trendy v podnikání. Plzeň, Západočeská univerzita v Plzni, 14.-15. listopadu 2013. Příspěvek: „TIMBRE – webový nástroj pro prioritizaci brownfields (možnost využití v městském a regionálním plánování)“. (Klusáček, P., Frantál, B., Kunc, J., Martinát, S., Osman, R.)	IOG
WP3 presentation at scientific workshop	11/13	Scientists and researchers	CZ	I-Regions Conference: Inspiration – innovation – improvement. Ústí nad Labem, Univerzita Jana Evangelisty Purkyně, 21.-22. listopadu 2013. Příspěvek: „Nástroj TIMBRE na podporu prioritizace brownfields“. (Klusáček, P., Frantál, B., Kunc, J., Martinát, S., Osman, R.)	IOG

Publication Type ^a	Date	Targeted audience ^b	Language ^c	Details / Reference	Responsible / Involved
WP3 presentation at workshop	11/13	Czech stakeholders	CZ	Přednáška pro veřejnost v rámci Týdne vědy a techniky 2013 - 5.11.2013, Brno, Kavárna Akademia, 17:00 – 18:00 – téma Webový nástroj pro prioritizaci brownfields	IOG
Updated WP2 product leaflets	11/13	Stakeholder	EN & DE	F. Alexandrescu and A. Bleicher <ul style="list-style-type: none"> • “Drivers and barriers in regeneration Projects: sociological research findings from four countries.” • “Key Actors and decisions in BROWNFIELD regeneration: site-specific insights from the Czech Republic, Poland and Romania” Product leaflets distributed at the WS in Berlin (November 2013)?	UFZ
TIMBRE presentation at conference	11/13	General public	DE	Roselt, K. “Experiences with a running EU project – TIMBRE”, presentation within in frame of kick-off event HORIZON 2020 in Erfurt, Germany	JG
WP7 presentation at ITVA C5 meeting	11/13	Regulation, industry, consultant, SME	DE	At ITVA - German Association of Remediation Engineers – Technical committee C5 report on progress of TIMBRE actions and on collaboration on HOMBRE CEN activity. Bartke, S: Glossare und Fachbegriffe – Beteiligung an einer europäischen Standardisierung	UFZ
Publication	12/13	Research	EN	Morio, M., Finkel, M., Schädler, S., 2013. Applying a multi-criteria genetic algorithm framework for brownfield reuse optimization: Improving redevelopment options based on stakeholder preferences. Journal of Environmental Management 30, 331–346.	TUB

Publication Type ^a	Date	Targeted audience ^b	Language ^c	Details / Reference	Responsible / Involved
Deliverable	12/13	Restricted to a group specified by the consortium (including the Commission Services)	EN	D4.2. Title: Field test of Tree Coring as an initial screening tool for typical pollutants in the subsurface	DTU
WP6/7 UFZ-TIMBRE booklets	published 2013	Site owners, industry, consultants, planners, authorities, regulators, higher education	EN PL (RO)	Helmholtz Centre for Environmental Research – UFZ and TIMBRE (eds): “The Megasite Management Guideline” and Helmholtz Centre for Environmental Research – UFZ and TIMBRE (eds): “Informatyczne Narzędzie Zarządzania Megaobiektami Przewodnik” www.timbre-project.eu A Romanian language version is currently in preparation	UFZ with TUB, IETU (UTCB)
Publication	12/13	Research	EN	Morio, M., Finkel, M., Schädler, S., 2013. Applying a multi-criteria genetic algorithm framework for brownfield reuse optimization: Improving redevelopment options based on stakeholder preferences. Journal of Environmental Management 30, 331–346.	TUB
Timbre case study - conference presentation and paper		Research, Higher education, Public authorities, Companies Site owners	PL, EN	J. Krupanek, M. Kalisz, B. Michaliszyn, J. Gorgoń: Sustainable Approaches to Megasite Redevelopment – Post Military Sites, VII Międzynarodowa Konferencja Innowacyjne Rozwiązania Rewitalizacji Terenów Zdegradowanych, 2–4 października 2013, Ustroń, in print.	IETU

Publication Type ^a	Date	Targeted audience ^b	Language ^c	Details / Reference	Responsible / Involved
Timbre case study - conference presentation and paper		Research, Higher education, Public authorities, Companies Site owners	PL/ EN	K. Samborska, J. Krupanek, M. Kalisz, J. Bronder, E. Martac, M. Stalder: Multi-Method Approach to Investigation of Megasite Environmental Quality – a Former Airbase in Szprotawa Case Study, VII Międzynarodowa Konferencja Innowacyjne Rozwiązania Rewitalizacji Terenów Zdegradowanych 2–4 października 2013, Ustroń, in print.	IETU, Fugro, SolGeo
Article	2014	Science, research	EN	Kunc, J., Martinát, S., Tonev, P., Frantál, B. (2014): Destiny of urban brownfields: Spatial patterns and perceived consequences of post-socialist deindustrialisation, Transylvanian Review of Administrative Sciences 41 E/2014, 109-128, http://rtsa.ro/en/files/RTSA%201%20E%20-7KUNC,%20MARTINAT,%20TO NEV,%20FRANTAL.pdf	IOG
Article	2014	Science, research	EN	Alexandrescu, F., Klusáček, P., Martinát, S., Bartke, S. (in press): The Path From Passivity Towards Entrepreneurship: Public Sector Actors in Brownfield Regeneration Processes in Central and Eastern Europe, in Organization & Environment.	UFZ, IOG
<p>(a) Type can be article, book, book chapter, poster, flyer, presentation, press release, newspaper, TV, radio and other (to be specified)</p> <p>(b) Targeted audience can be research, policy, general public, regulation, practice, industry and other (to be specified)</p> <p>(c) CZ = Czech, DE = German, DK = Danish, EN = English, FR = French, IT = Italian, PL = Polish, RO = Romanian</p>					

3. Specific publications

The comprehensive Table 1 “Overview on TIMBRE publications” shows an impressive continuation of publications produced for diverse TIMBRE target groups in the progressed phase of the project.

According to the DoW, five publications shall be released per year. At the beginning of the project, the publications strived at presenting the project and initiating a mutual learning of researchers in the project and stakeholders as target groups. Publications in this second term continued on this and were to describe more in focus approaches, methods, and technologies developed in TIMBRE for end-users. The publications were to clearly address their practicability and windows of application for real cases. In the following, five exemplarily publications are presented in more detail. The publications of the third term mainly aimed at distributing the results of the work packages and discussed the reactions of the stakeholders on the developed tools. In particular, descriptions of approaches, methods, and technologies developed in TIMBRE for end-users were created. The publications were again clearly to address their practicability and windows of application for real cases.

3.1 Website www.timbre-project.eu – Improvements since 3/2013

The main dissemination tool of the TIMBRE consortium has been its website: www.timbre-project.eu. At the same time, it has been and is the projects major venue for publications regarding project updates and news. Since the first TIMBRE report on end-user publications (Deliverable 7.2 – available for download on the website), further improvements have been implemented to further raise the ability of the project to disseminate its results and engage with stakeholders and end-users of the TIMBRE approaches, methods and technologies developed in the project.



Figure 1: Interface of TIMBRE website (English language version) (© timbre project).

The public interface contains the section: “Events”, which gives detailed information on upcoming and previous events from diverse areas related to the brownfield regeneration field. Next to the international events and the TIMBRE events, deadlines of calls for abstracts, papers and alike are announced – between February 2013 and February 2014, 68 events have been published here.

TIMBRE partners are encouraged to send in the latest information for the Events, and further for the publications and the news sections, which will then be displayed in the website. In the last twelve months since February 2013, 33 new news items have been published on the website.

Furthermore, 12 new publications were listed online and brief presentations of all tools as product leaflets were made available for download.

As a new feature, a “Glossary” was added to the website. This section clarifies all specific terms of the project and hence simplifies the accessibility to the content of the project.

The key characteristic of the website remains to be its availability in seven European languages. The website started in English, German and Romanian. Since the beginning of 2012, next to the English main website, the TIMBRE website is available also in Czech, French, Italian and Polish versions. While the main English website includes all project relevant information, short abstracts and summaries as well as in-depth coverage of country specific items are posted on the other language versions based on national partners input.

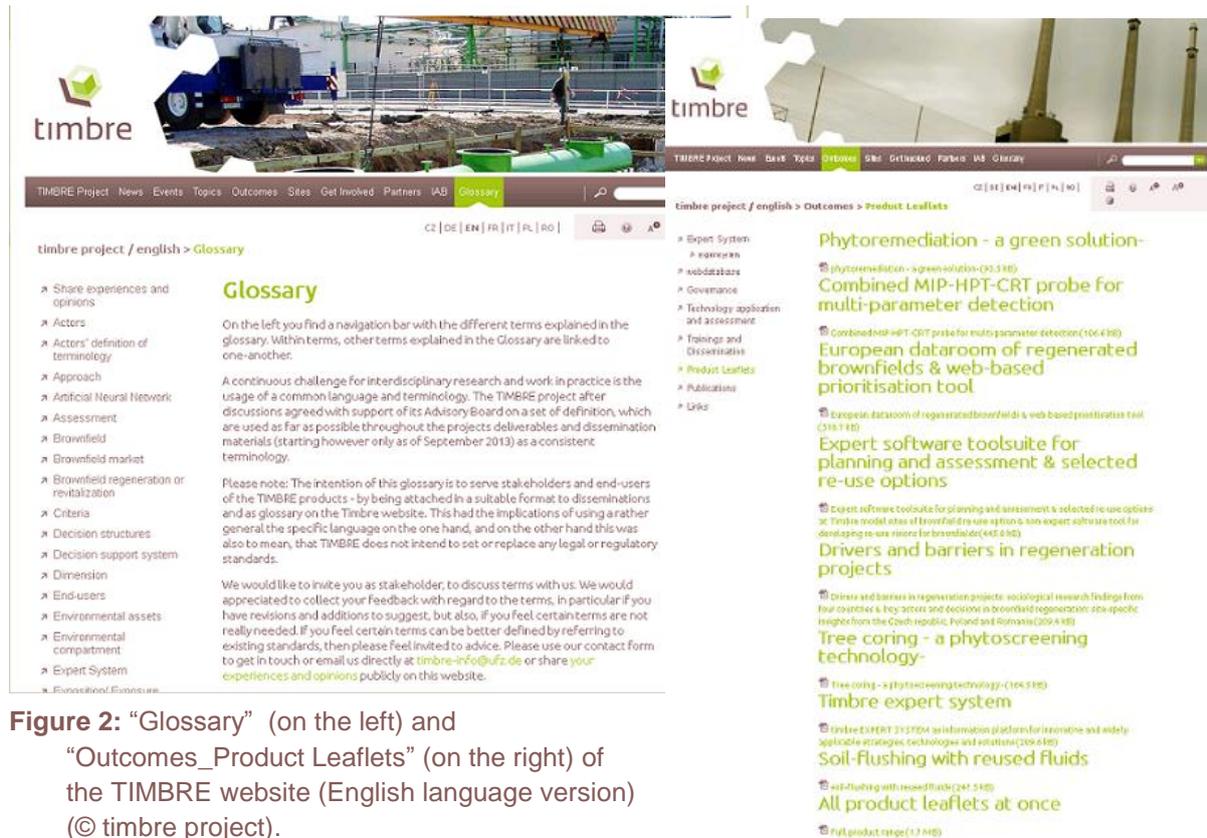
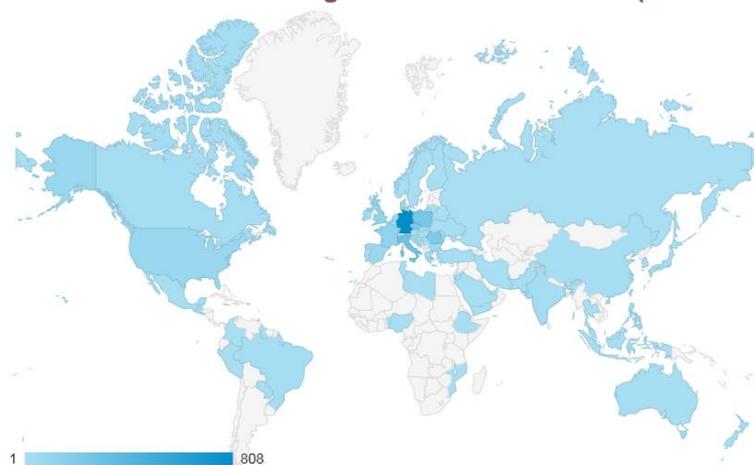


Figure 2: “Glossary” (on the left) and “Outcomes_Product Leaflets” (on the right) of the TIMBRE website (English language version) (© timbre project).

According to GoogleTM Analytics, in the last 12 months, 2600 people visited the TIMBRE website, most of them from central Europe with ca. 800 from Germany, 280 from Italy, 240 from Poland, 220 from the Czech Republic, 200 from Romania and 120 from France. Next biggest interest was from the United Kingdom with 100 and then from the United States with 75 individual visitors counted. In total, visits from 75 nations were identified; of which about 18 percent were returning visitors whereas 82 per cent were new visitors.

For supporting the timeliness of the website the project partners are educated in the maintenance of the website. This was managed through an online web seminar with shared screens. Further educative actions in this context will be organized.

Figure 3: TIMBRE website international usage in the last 12 months (Source: GoogleTM Analytics)



3.2 TIMBRE Product Leaflets

One of the major objectives of the TIMBRE project in addition the gathering of available information on remediation of brownfields is to make the outcomes of the project as user friendly as possible. In order to achieve this all tools were presented in brief product leaflets (available online and printed at various TIMBRE events). Each working package prepared such leaflets focusing on the main outcomes and results of their work.

Publications delivered are:

- Algreen M. et al. (2013): Tree coring - a phytoscreening technology- Tree coring - a phytoscreening technology-
- Bleicher A. et al. (2013): Drivers and barriers in regeneration projects: sociological research findings from four countries
- Alexandrescu F. et al. (2013): Key actors and decisions in brownfield regeneration: site-specific insights from the Czech republic, Poland and Romania
- Clausen, L. et al. (2013): Phytoremediation - a green solution -
- Fatin-Rouge, N. et al. (2013): Soil-flushing with reused fluids
- Finkel, M. et al. (2013): Expert software toolsuite for planning and assessment & selected re-use options at Timbre model sites of brownfield re-use option
- Finkel, M. et al. (2013): Non-expert software tool for developing re-use visions for brownfields Expert software toolsuite for planning and assessment
- Finkel, M. et al. (2013): Selected re-use options at Timbre model sites of brownfield re-use option & non-expert software tool for developing re-use visions for brownfields
- Giubilato, E. et al. (2013): Timbre EXPERT SYSTEM as information platform for innovative and widely applicable strategies, technologies and solutions
- Klusáček, P. et al. (2013): European dataroom of regenerated brownfields
- Klusáček, P. et al. (2013): Web-based Prioritization Tool
- Martac, E. et al. (2013): Combined MIP-HPT-CRT probe for multi-parameter detection Combined MIP-HPT-CRT probe for multi-parameter detection

The product leaflets were developed to provide a compromised overview of the tools and outcomes of the TIMBRE project – to raise the interest of potential end-users to visit the website or other TIMBRE publications for more in-depth information. Therefore, every contributor to the project was asked to deliver an easily assessable flyer which would state the main results of the specific research. The flyers are to be distributed on every TIMBRE venue as well as on cooperating events dealing with remediation of soils or revitalization of brownfields.

Additionally a contact person was indicated in case of need for more in-depth information. This way the aim of the TIMBRE project to provide an overview on existing techniques and tools on the remediation of brownfields was pursued.



timbre Tailored Improvement of Brownfield Regeneration in Europe

SOIL-FLUSHING WITH REUSED FLUIDS

Type of product	Treatment technology for contaminated soils, availability
Target group	Scientific community, European policy makers, companies
Availability	Timbre website, UFC website, scientific journals

Background: Soil-flushing is a high potential in-situ technology with minimal site disturbance, able to adapt easily to target contaminants by using additives that help for their removal. The spreading of chemicals within the soil and their optimal use (and reuse when feasible) are critical points to achieve effective remediation at low costs.

Purpose: Chemicals, vectors and separation tools are considered to both improve contaminant removal and reuse of flushing fluids as well as to provide added-value for the treatment of concentrated wastes.

Approach: Depending on soil porosity, nature and concentrations of contaminants, flushing uses foams or aqueous solutions. Highly effective, autonomous and stable separation technologies are applied in the field for both the removal of contaminants and the reuse of active agents from soil leachates.

Findings and implications: Nano and ultra-filtration are stable, highly mobile and cost-effective membrane technologies fitting the on-site management and reuse of soil-flushing wastewater of hydrocarbon-contaminated soils. They warrant high recovery of active substances (oxidant, surfactant) and high removal of contaminants. The technology is compatible with in-situ re-injection, encouraging for the reuse of treatment fluids.

For hydrocarbon-contaminated porous soils, the use of surfactant foams injected at low pressure allows a simultaneous and efficient extraction of VOC and SVOC contaminants, acting as a combination of venting and flushing. This allows a substantial reduction of wastewater amounts to manage. Chelating agents for metal extraction were found to be highly and easily recovered, and they can be reused several times with high yields using iron-based beds through redox or precipitation reactions.

Practical and social applications: The method allows intensive remediation at reduced costs while saving water and reagents and avoiding the transportation of high volumes of waste.






Soil before and after their treatment Membranes treatments UF & surfactant recovery NF & oxidant recovery

Contact: Nicolas Fatin-Rouge (nicolas.fatin-rouge@univ-fcomte.fr)

Timbre – www.timbre-project.eu – acknowledges the received funding from the European Community's Seventh Framework Programme FP7 (2011-2014) under grant agreement no 265364





timbre Tailored Improvement of Brownfield Regeneration in Europe

Timbre EXPERT SYSTEM as information platform for innovative and widely applicable strategies, technologies and solutions

Type of product	Web-based software
Target group	Consultants, central and local authorities, scientific community
Availability and costs	Free access after registration. Available from March 2014

Purpose: Many approaches and tools are available for supporting brownfield management, but they are only rarely applied due to their scarce visibility. The TIMBRE Expert System aims at supporting stakeholders in sharing, accessing and selecting the most suitable information for the different phases of the brownfield management process, taking into account their specific requirements and the evaluations provided by previous users.

Design and methodology: The Expert System includes a wide database of web links to documents on approaches, tools and regulations for brownfield regeneration. Web links can be uploaded and consulted by the users through a framework encompassing all phases of brownfield regeneration. The system strongly relies on inputs from users, who are invited to provide information about themselves and their search, to upload and share new information, to search the database and to evaluate the outputs provided by the tool. The ranking of provided outputs is supported by an Artificial Neural Network methodology considering a set of criteria, including the typology of user, his/her search aim, information categories of interest and evaluation of documents by previous users.

- 1 Definition of search aim and information categories
- 2 Searching and selecting information
- 3 Evaluating information



Applicability: The tool is applicable to share and search for information on brownfield regeneration in a wide European context. There are no specific/technical requirements for its use.

Value: This is not only a static database; information contents and the ability of the tool to provide tailored results will increase day by day through users' inputs. The Neural Network methodology allows the system to develop continuously and to adapt results along its use.

Availability: Available on the Timbre Tool Suite after registration from March 2014.

Contact: Elisa Giubitalo – giubitalo@unive.it

Timbre – www.timbre-project.eu – acknowledges the received funding from the European Community's Seventh Framework Programme FP7 (2011-2014) under grant agreement no 265364



Picture 4: Examples of Product Leaflets: “Soil-flushing with reused fluids” and “Timbre Expert System” (© timbre project).

The product leaflets were elaborated in English and translated to German in October 2013. A translation to Romanian, Czech and Polish language is foreseen for 2014.

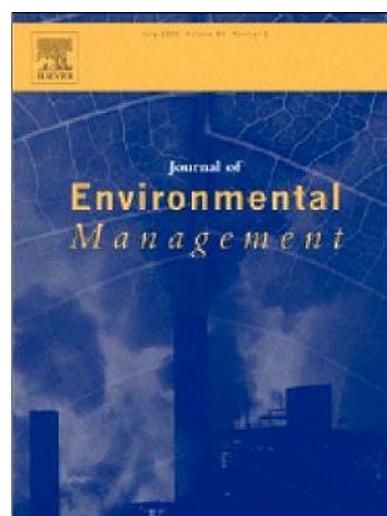
3.3 Publication on applying a multi-criteria genetic algorithm framework for brownfield reuse optimization

This article in the *Journal of Environmental Management* by Max Morio and colleagues from TUB TIMBRE WP6 focuses on the appliance of a multi-criteria genetic algorithm framework for brownfield reuse optimization. The reuse of underused or abandoned contaminated land, so-called brownfields, is increasingly seen as an important means for reducing the consumption of land and natural resources. Many existing decision support systems are not appropriate because they focus mainly on economic aspects, while neglecting sustainability issues. To fill this gap, the authors present a framework for spatially explicit, integrated planning and assessment of brownfield redevelopment options. A multi-criteria genetic algorithm allows determining optimal land use configurations with respect to assessment criteria and given constraints on the composition of land use classes, according to, e.g., stakeholder preferences. Assessment criteria include sustainability indicators as well as economic aspects, including remediation costs and land value. The framework is applied to a case study of a former military site near Potsdam, Germany – the TIMBRE test site Krampnitz. Emphasis is placed on the trade-off between possibly conflicting objectives (e.g., economic goals versus the need for sustainable development in the regional context of the brownfield site), which may represent different perspectives of involved stakeholders. The economic analysis reveals the trade-off between the increase in land value due to reuse and the costs for remediation required to make reuse possible. The authors identify various reuse options, which perform similarly well although they exhibit different land use patterns. High-cost high-value options dominated by residential land use and low-cost low-value options with less sensitive land use types may perform equally well economically. The results of the integrated analysis show that the quantitative integration of sustainability may change optimal land use patterns considerably.

The article was published in the *Journal of Environmental Management*, which “publishes papers on all aspects of management and use of the environment, both natural and man-made. As governments and the general public become more keenly aware of the critical issues arising from man's use of his environment, the journal aims to provide a forum for the discussion of environmental problems around the world and for the presentation of management results. It is aimed not only at the environmental manager, but at everyone concerned with the wise use of environmental resources.” (<http://www.researchgate.net/>; accessed: 12.02.2014)

The publication can be found on the Timbre-website: [timbre project / english > Outcomes > Publications](http://www.timbre-project.org/):

Morio, M., Schädler, S., Finkel, M.(2013): Applying a multi-criteria genetic algorithm framework for brownfield reuse optimization: Improving redevelopment options based on stakeholder preferences, *Journal of Environmental Management* 130, 331–346.



Picture 5: Front page of Journal of Environmental Management (Source: www.researchgate.net)

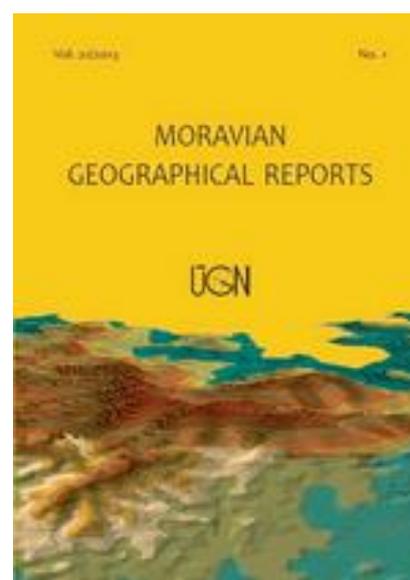
3.4 Publication on: Location Matters! Exploring Brownfields Regeneration in a Spatial Contexts

The publication in *Moravian Geographical Reports* of Bohumil Frantál and colleagues from IOG TIMBRE WP3 provides insights on brownfield regeneration in a spatial context referring to a case study in the South Moravian Region of the Czech Republic.

In this paper the authors attempt to answer the question on which location and site-specific factors have a decisive influence on the successful regeneration of brownfields. Using data from the South Moravian Region (Czech Republic), we analyze the spatial and functional distribution of brownfields, and test the correlation between the development potential of municipalities and the distribution of the brownfields that have already been regenerated. We then compare the structure and characteristics of existing and regenerated brownfields to identify significant drivers and barriers in the regeneration process. The findings indicate that regenerated brownfields are more likely located in municipalities with a higher local development potential (represented by the rate of local business activities, spatial peripherality – proximity to the regional centre and the main road network, and the quality of local infrastructure). It is also demonstrated that the large size of brownfields, their previous industrial use and the existence of contamination are not determinative barriers for regeneration if the brownfields are located in attractive areas and their ownership relations are not complicated.

According to its website, the “Moravian Geographical Reports [MGR] is an international peer-reviewed journal, which has been published in English continuously since 1993 by the Institute of Geonics, Academy of Sciences of the Czech Republic, through its Department of Environmental Geography. It receives and evaluates articles contributed by geographers and by other researchers who specialize in related disciplines, including the geosciences and geo-ecology, with a distinct regional orientation, broadly for countries in Europe.” (<http://www.geonika.cz/EN/research/ENMgr.html>; accessed: 12.02.2014)

Frantál, B., Kunc, J., Nováková, E., Klusáček, P., Martinát, S., and Osman, R. (2013): Location Matters! Exploring Brownfields Regeneration in a Spatial Contexts (Case Study of the South Moravian Region, Czech Republic), in *Moravian Geographical Reports* 21(2/2013), 5-19.



Picture 6: Front page of the Moravian Geographical Reports (Source: <http://www.geonika.cz/>)

3.5 Publication on: The Path From Passivity Towards Entrepreneurship: Public Sector Actors in Brownfield Regeneration Processes in Central and Eastern Europe

The publication in *Organization and Environment* of Filip Alexandrescu and colleagues from IOG and UFZ TIMBRE WP2 discusses brownfield regeneration and institutional entrepreneurs in the context of Europeanization theory.

Europeanization research dealing with the environmental transition in Eastern Europe has focused on the roles of state actors in adopting European regulations. Less well understood are the framings and roles of public administration actors when EU regulations do not prescribe specific institutional changes. This paper offers a micro perspective on the framings and roles of such actors in several cases of brownfield regeneration. Actors can play a proactive role, thereby fostering change, or they can play a moderately active or a passive role. We identify three moments – defining brownfield problems, mobilizing networks and leading by example – which together define an entrepreneurial path. Along this path, actors can evolve from passivity towards entrepreneurship, but stasis and regression are also possible. Using qualitative data from the project TIMBRE (Tailored Improvement of Brownfield Regeneration in Europe), we illustrate different moments along this path for public sector actors in the Czech Republic, Poland and Romania.

According to its website, “Organization & Environment (OAE), recognized as a leading international journal unique in its emphasis on the connection between the management of organizations and the multiple dimensions of the general environment, publishes quarterly peer-reviewed research that sets new and relevant standards for rigorous thinking about the complex and relevant dimensions of sustainability - including an appropriate balance between and among social, natural and economic challenges-, corporate social responsibility, ethics, and responsible corporate governance and business strategy. This research provides a crucial resource for the development of more effective environment-related organizational policy formulation, implementation and evaluation.” (<http://oae.sagepub.com/>; accessed: 28.02.2014)

Alexandrescu, F., Klusáček, P., Martinát, S., Bartke, S. (in press): The Path From Passivity Towards Entrepreneurship: Public Sector Actors in Brownfield Regeneration Processes in Central and Eastern Europe, in *Organization & Environment*.



Picture 7: Front page of Organization and Environment (Source: http://oae.sagepub.com/content/vol26/issue4/home_cover.gif)

Annex: Contributors to the report and Disclaimer

Contributors

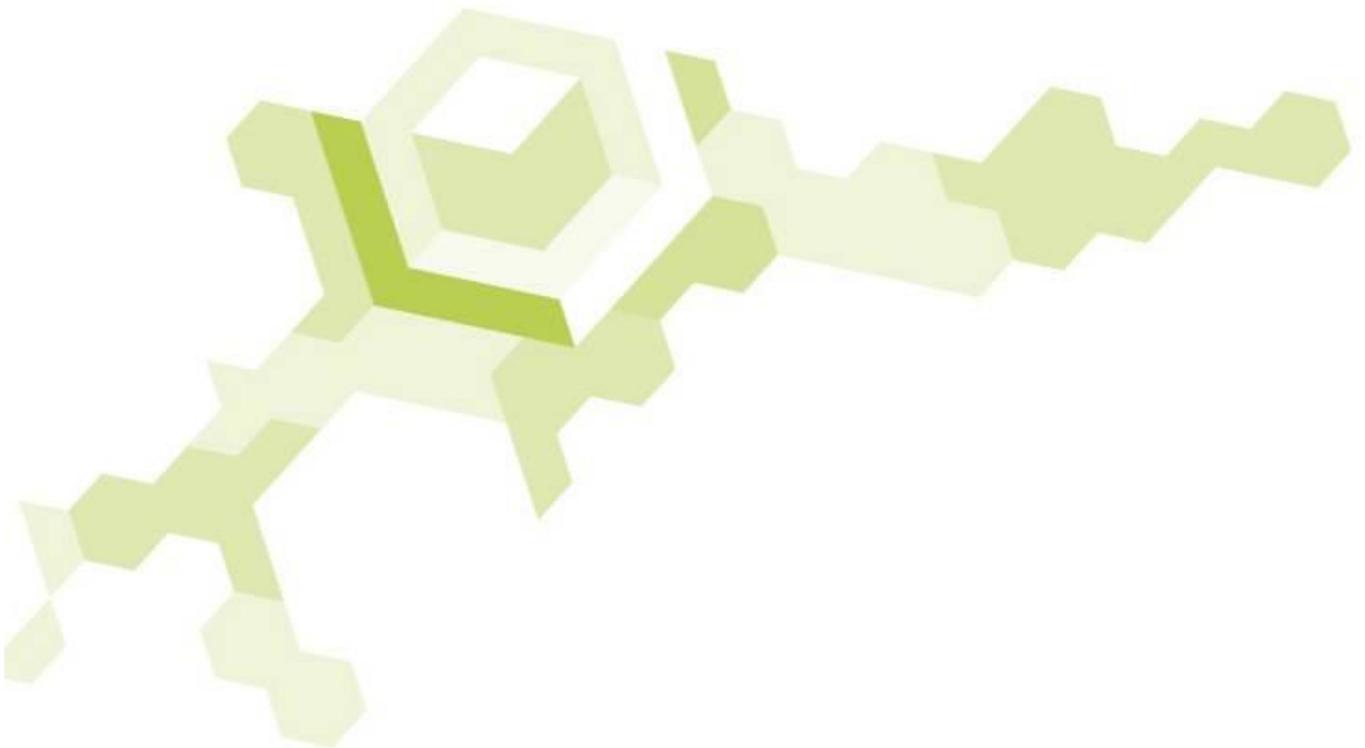
This report is the result of discussions between all partners of the TIMBRE Work Package 7 and the Steering Committee. It was prepared by Corinna Brückmann and Stephan Bartke (UFZ) and has been edited by Stephan Bartke (UFZ).

Disclaimer

This document is aimed at assisting brownfield regeneration stakeholders. It is provided for information purposes only and its contents are not intended to replace consultation of any applicable legal sources or the necessary advice of a legal expert, where appropriate.

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