



timbre

Tailored Improvement of
Brownfield Regeneration
in Europe

Identification of the success factors of brownfield regeneration: some evidence from European experience

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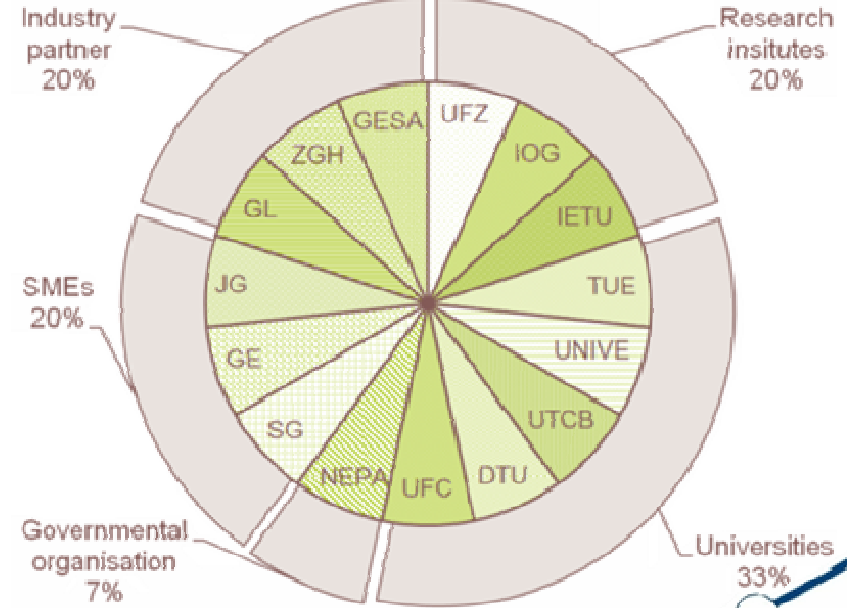
1. Introduction
2. Brownfields in EU
3. Factors of successful redevelopment
4. The planned research activities
5. Discussions



1. Introduction – basic information

- 🏠 **FP7 project timbre** – Tailored Improvement for Brownfield Regeneration in Europe – aims to support end-users in overcoming existing barriers by developing and providing customised problem- and target-oriented packages of technologies, approaches and management tools for a brownfields reuse planning and remediation.
- 🏠 **Holistic approach** - combination of the technical, social, environmental research activities,
- 🏠 **The research consortium** - is created by 15 partners from different European countries

1. Introduction – key facts



- FP7 Collaborative Project
- Duration: 01/2011 – 06/2014
- 15 Partners & International Advisory Board
- Budget: 4.7 Mio €, EC-Funding: 3.4 Mio €



GeoExperts
Dr. Kühne & Partner
Beratende Geowissenschaftler und Ingenieure

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1. Introduction - TIMBRE test sites



1. Introduction - main objectives of WP3: Success metrics and prioritization tool



- 📌 **Success metrics:** Identification and definition of major characteristics and features (framework of indicators) to determine the successful and sustainable brownfield re-developments;
- 📌 **Success factors:** Identification of site parameters and factors (political-institutional, environmental-contextual, social, economic, communicative and marketing, etc.) governing a potential success/failure;
- 📌 **Prioritisation tool:** Development of a web based prioritisation tool based on multi-criteria-decision-analysis (MCDA) techniques for classifying and ranking brownfields (according to environmental, economic, social, financial, health, and legal criteria) and proposing the related „best-practice“ strategies that stakeholders involved in brownfield regeneration may use to more easily manage and assess success in their projects. Comparison of the moderate remediation goal (commensurability) in different countries (both “poor” and “rich”). Development of assessment tools for country-specific danger defences.

2. Brownfields in EU - different definitions – e.g.:



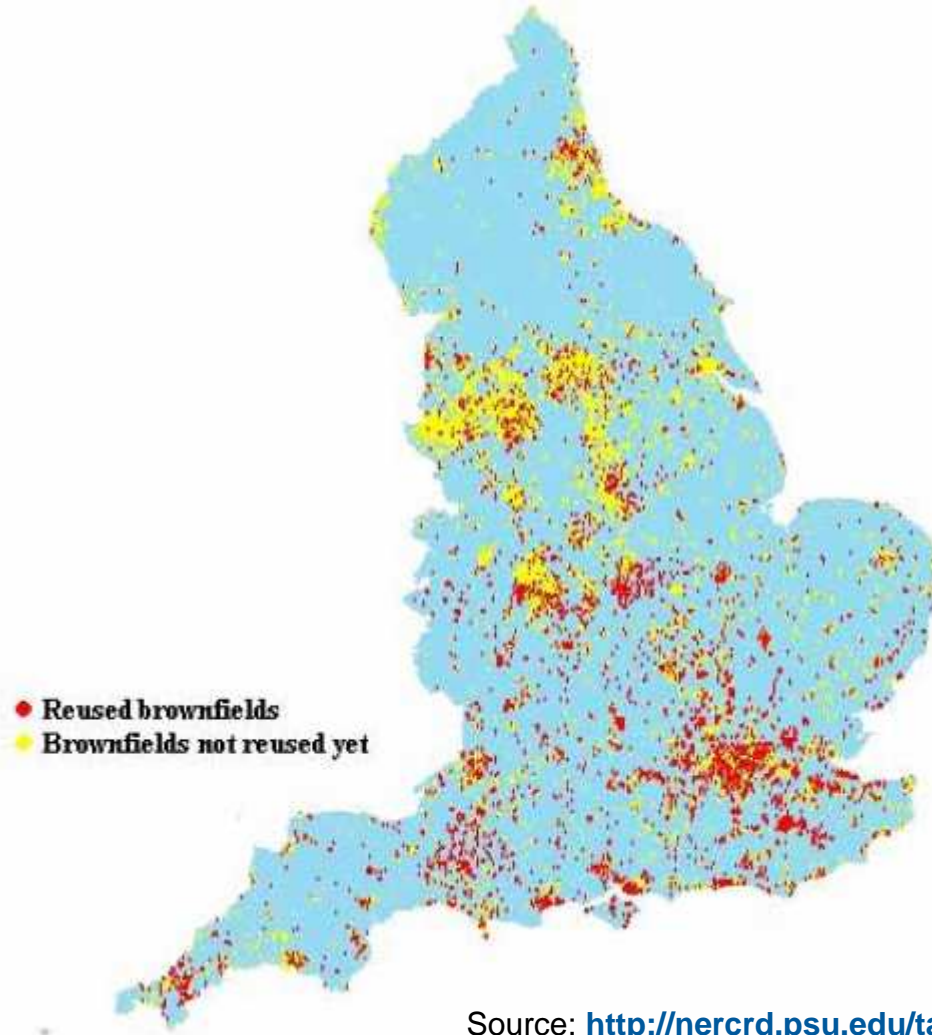
- 📌 **Czech Republic:** Sites that have been affected by the former uses of the site and surrounding land; are derelict and underused; may have real or perceived contamination problems; are mainly in developed urban areas; and require intervention to bring them back to beneficial use.
- 📌 **Germany:** Inner city buildings not under use. Inner city areas for redevelopment and refurbishment.
- 📌 **Poland:** Degraded areas due to diffuse soil contamination - high density of landfill sites.
- 📌 **Romania:** Polluted lands (soils).
- 📌 **United Kingdom: (a) England and Wales :** Previously developed land – it means land which is or was occupied by a permanent structure (excluding agricultural or forestry buildings), and associated fixed surface infrastructure; **(b) Scotland:** Vacant and derelict land

2. Brownfields in EU - other methodological problems



- 👉 **Availability of data** – in some countries are data normal available (e.g. UK), while in other countries are not available – e.g. the data associated with brownfields are protected because the owners did not agree to be published for everybody (bad image of brownfields),
- 👉 **Different phase of redevelopment** – while in some countries the brownfields has been solved since 1970s (UK, former West Germany), in the other countries the problems appeared after collapse of communism when market economy returned (former Eastern Germany, Czech Republic, Romania)
- 👉 **Different national approaches to brownfields** – (a) countries with high population density and lack of available greenfields (e.g. Netherlands, UK), (b) countries with low population density but support of environmental protection (e.g. Sweden), (c) countries with low population density and lot of available greenfields (e.g. Czech Republic, Poland, Romania)
- 👉 **Factors of successful redevelopment** – differences as well

3. Factors of successful redevelopment – England experience



- ❏ **London and Southern England**
– the share of successfully redevelop brownfields is higher than in the traditional industrial regions in north;
- ❏ **The less attractive for redevelopment** - are the sites located in the poorer areas of cities and regions of England or the sites where redevelopment is difficult because of serious problem (e.g. intensive pollution)

Source: <http://nercrd.psu.edu/taluc/PowerPoints/Longo.pdf>

3. Factors of successful redevelopment – Czech Republic experience



- ❖ **The data of not reused brownfields (as for England) are available only partially** – there is National strategy of brownfields regeneration which was created on research study – it identified 2.355 brownfields but only about 400 were published (their owners gave permission to be registered as brownfields)
- ❖ **The data of already reused brownfields** has not been systematically statistically collected yet, there are published only „best practices“ especially from urban regions
- ❖ **Identifications of factors** - questionnaire survey with experts dealing with brownfields redevelopment in the Czech Republic - the most important results are the followings

3. Factors of successful redevelopment – Czech Republic experience



Table 1: Success factors of brownfields regeneration in the Czech Republic

Factor	Rank	Relative significance [%]
Finances (regeneration costs, subsidies, grants)	1	70
Activity and cooperation (involvement of key stakeholders, public involvement, effective political “leadership”)	2	57
Localization (location attractiveness, transport connections)	3	55
Project (quality, realistic and sustainable plan for future utilization)	4	43
Ownership relationship (number and structure of property owners)	5	30
Contamination (ecological burden)	6	25
Legislature and policy (political and regulative instruments)	7	13
Attractiveness (architectural, historical or esthetical value of property)	8	6
Place marketing (strategy of local development and marketing)	9	4

3. Factors of successful redevelopment – Czech Republic experience



Table 2: Barriers of brownfield regeneration in the Czech Republic

Barriers (0 = no importance, 1 = low influence, 2 = medium influence, 3 = strong influence)	Average score
Economic (<i>investing costs, bad accessibility of financial capital, low fiscal support</i>)	2,90
Legislative (<i>low legislative support, lack of clarity of legal competencies, etc.</i>)	2,30
Procedural/administrative (<i>inconsistent strategies and methodologies at different hierarchical levels, bad cooperation among institutions, long decision-making periods</i>)	2,10
Information/knowledge (<i>availability and low quality of data and information about existing sites, potential solutions and tools, poor knowledge and experiences concerning the problems</i>)	1,95
Social-cultural (<i>low political involvement, low community involvement in public affairs, etc.</i>)	1,80
Technological (<i>limited capabilities of soil decontamination methods, technological equipments, etc.</i>)	1,70

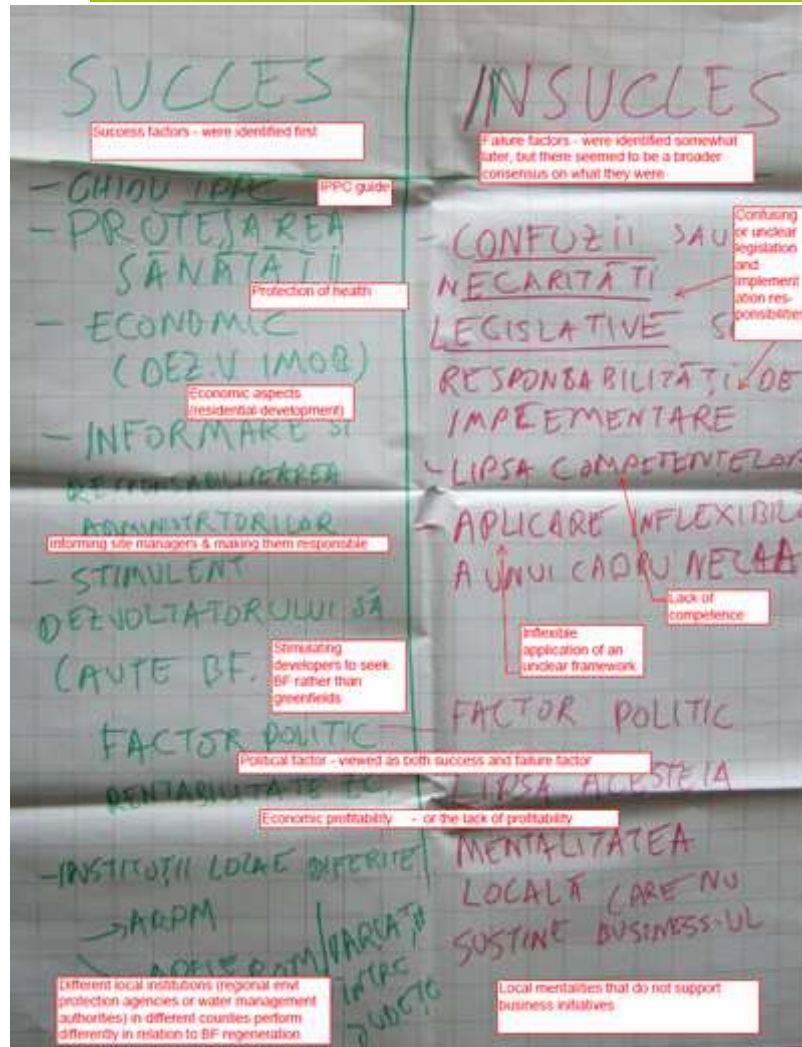
3. Factors of successful redevelopment – Czech Republic experience



Table 3: Preferences of future utilization of brownfields

Rural areas	[%]	Urban areas	[%]
Recreational	69	Cultural, educational	70
Renewable energy	56	Housing	58
Industrial	50	Recreational	53
Greenery, forestation	38	Greenery, parks	45
Agriculture	25	Multifunctional	42
Housing	20	Industrial	40
Cultural, educational	19	Offices	15
		Renewable energy	6

3. Factors of successful redevelopment – Romania experience



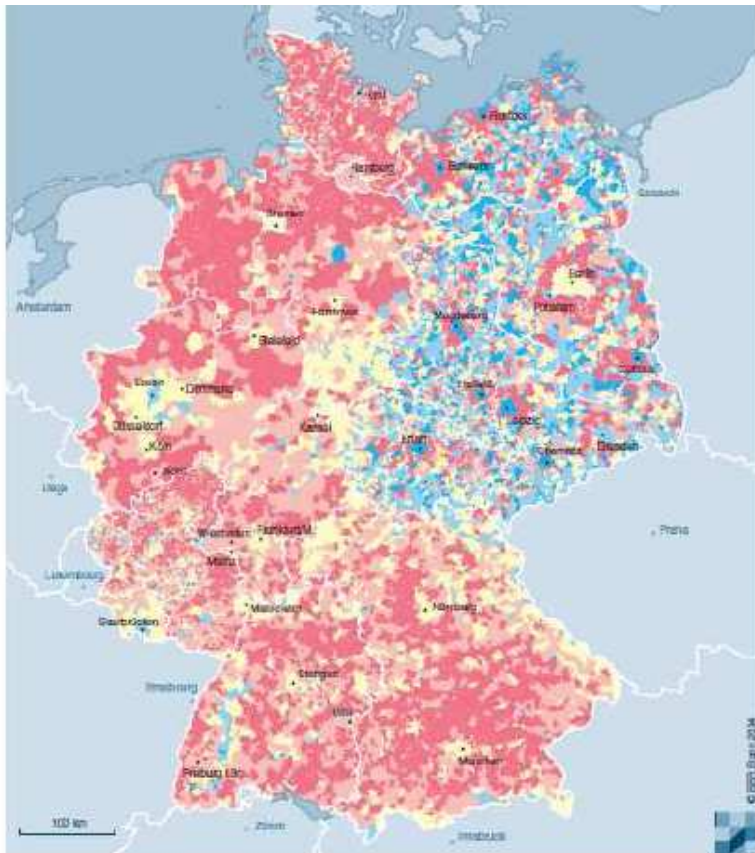
- ❖ **The conditions in Romania** – very different, plenty of contaminated sites, only a few were successfully redeveloped because there are plenty of greenfields for investors
- ❖ **Preparing of final questionnaire form** – with use of focus groups with experts – „what does successful reuse means in conditions of Romania?“

3. Factors of successful redevelopment – Romania experience



- ❖ **The results of focus groups in Romania** – successful brownfields redevelopment is influenced by many factors – especially:
 - (a) planning tools - Integrated Pollution Prevention and Control (IPPC) - offer only a guide with best practices for different cases,
 - (b) political factors – if the representatives of public administration support development on brownfields than on green fields,
 - (c) economic factors – the economic profitability of redevelopment,
 - (d) local factors – if the local groups of stakeholders support the redevelopment process or not,
 - (e) environmental factors – protections of health,
 - (f) other kind of factors – includes other factors which are important for concrete sites

4. The planned research activities



- ❖ **Other pilot researches** – the similar pilot studies will be conducted in Germany and in Poland, in Germany the attention will be paid both to the selected Bundesland with population decrease (e.g. Saxony) and to the selected Bundesland with population increase (Bavaria)
- ❖ **Final questionnaire form** – will be created based on the results of all pilot researches and it will be distributed in Germany, Poland, Czech Republic and Romania in 2012

5. Discussion and questions?



Former textile factory Moravan in Brno (Czech Republic) rebuilt into new apartments and offices



Former iron works in Huneduora (Romania) – demolitions as start of redevelopment?



„Housing” brownfields in Leipzig (Germany) - waiting for new reuse or demolition?



Former mine Jan Maria in Ostrava (Czech Republic) – rebuilt for new pub and hotel



Former factory in Łódź (Poland) – rebuilt to culture, trade and entertainment centre