



timbre

Tailored Improvement of
Brownfield Regeneration
in Europe

Timbre project at a glance

Stephan Bartke

Helmholtz Centre for Environmental Research – UFZ

Meeting of Coordinators –

Urban Issues, Biodiversity and Land Degradation

European Commission, Berlaymont, 22nd – 23rd October 2012, Bruxelles

Content



4

3

2

1

Tailored Improvement of Brownfield Regeneration in Europe





timbre

in Europe

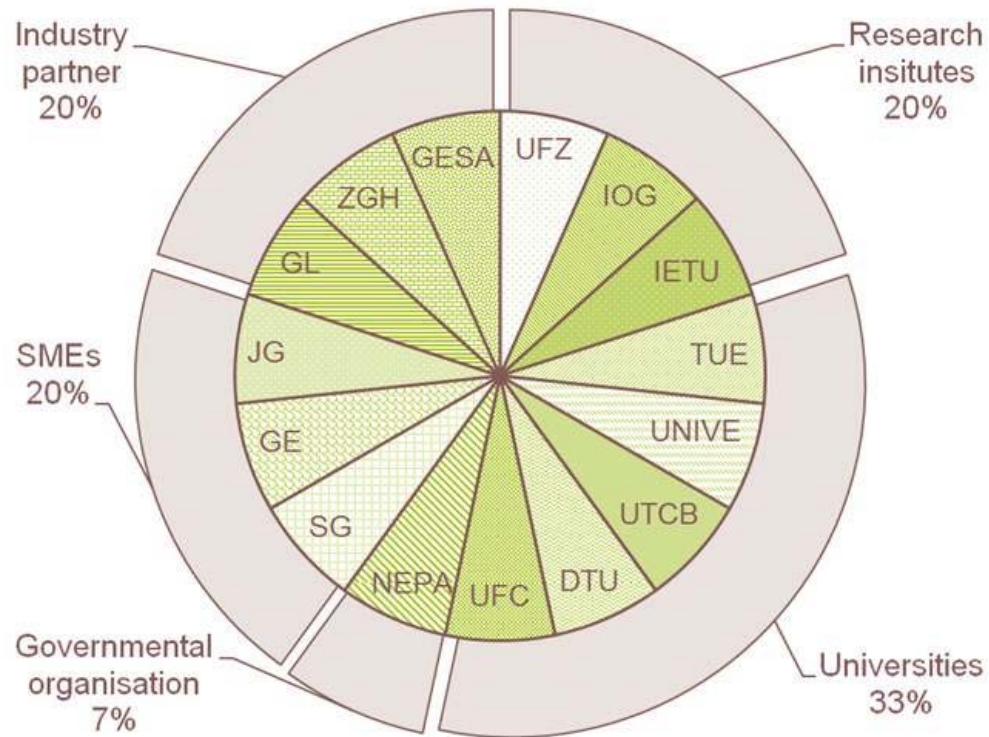
1. In Europe: Timbre project – Key facts



- Collaborative Project
- ENV.2010.3.1.5-2
Environmental
technologies
for brownfield
regeneration
- 01/2011 – 06/2014
- EC-Funding: 3.4 Mio €



1. In Europe: Timbre project – Partners



15 Partners & International Advisory Board

EBERHARD KARLS
UNIVERSITÄT
TÜBINGEN



GEOEXPERTS
Dr. Kühne & Partner

Beratende Geowissenschaftler und Ingenieure



Institute of Geonics AS CR, v. v. i.



www.timbre-project.eu

1. In Europe

Challenge of degradation & sealing



timbre



Build-up in Europe
2006: app. 10 Mha

200 m² per 

Sealing EU in 2006:

360 x  per day

Source: Cf. EC (2012)

Image: EC 2012



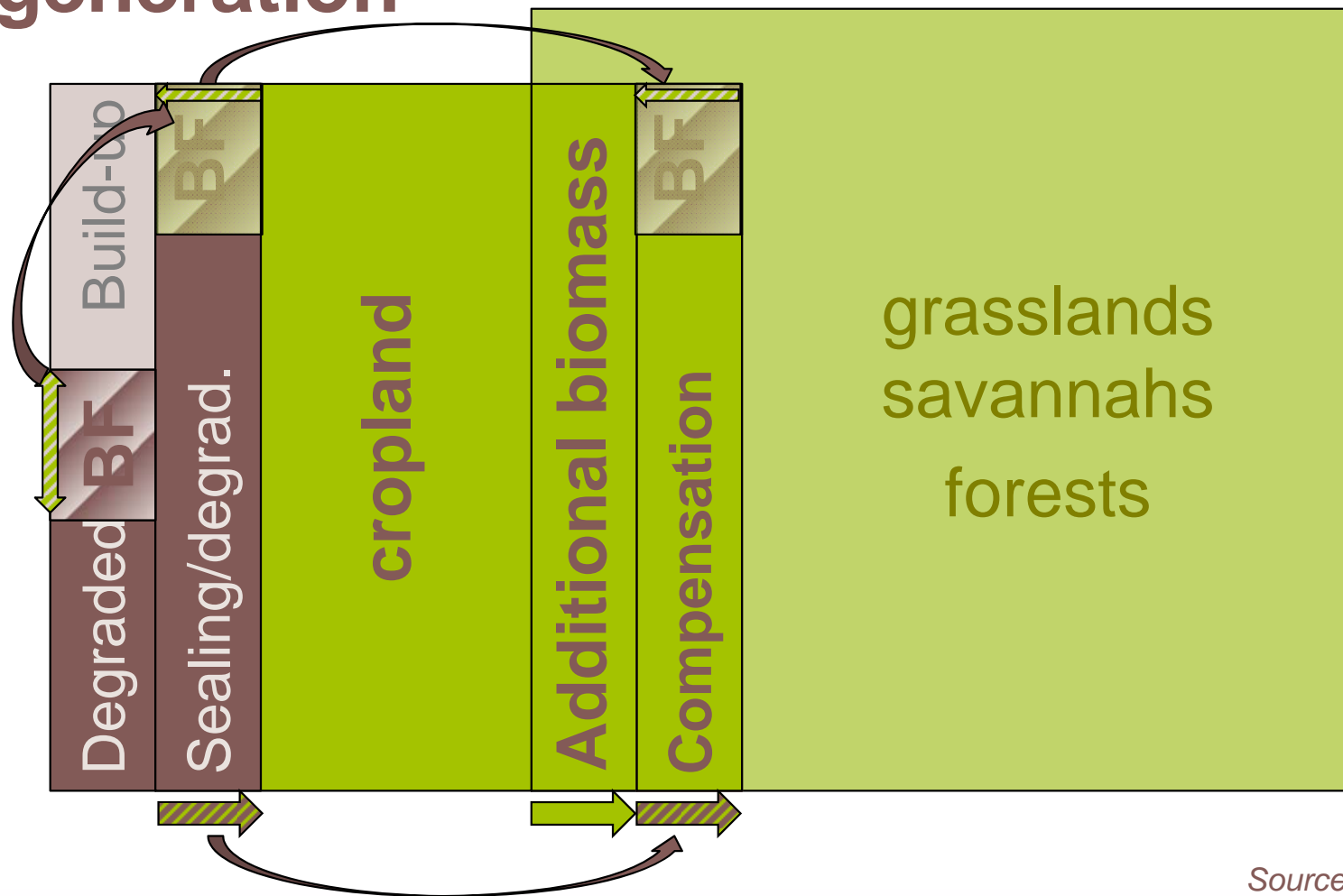
timbre

Brownfield Regeneration

2. Effect of global land-use trends (simplified scheme) and potential benefit due to brownfield (BF) regeneration



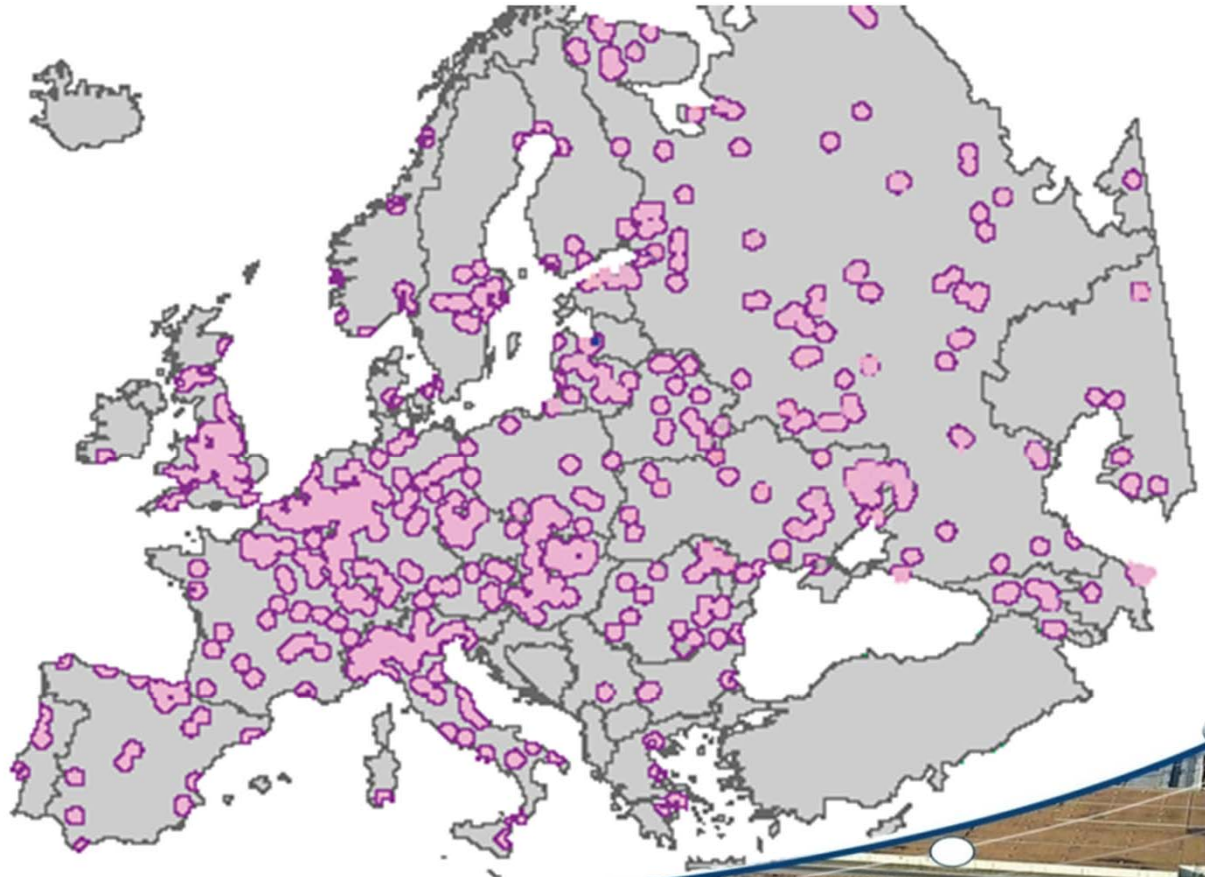
timbre



Source: cf. Bringezu (2012)

2. Revitalization of Megsites Megsites in Europe

- Conservative **Estimates:**
 - 20.000 Megsites in Europe
 - Remediation costs:
> 100 Billion €



Source: cf. Bittens et al. (2008)



What makes a megasite a megasite?

- Multiple sources and plumes
 - Multiple remediation options
 - Multiple cost-functions and values
 - Complex stakeholder interests
- How to make feasible decisions?

Image: Nicolae Pacurar, PhD – Hunedoara, Romania

2. In Europe: Timbre project – test sites



timbre





timbre

Improvement of

3. Challenges of brownfield regeneration

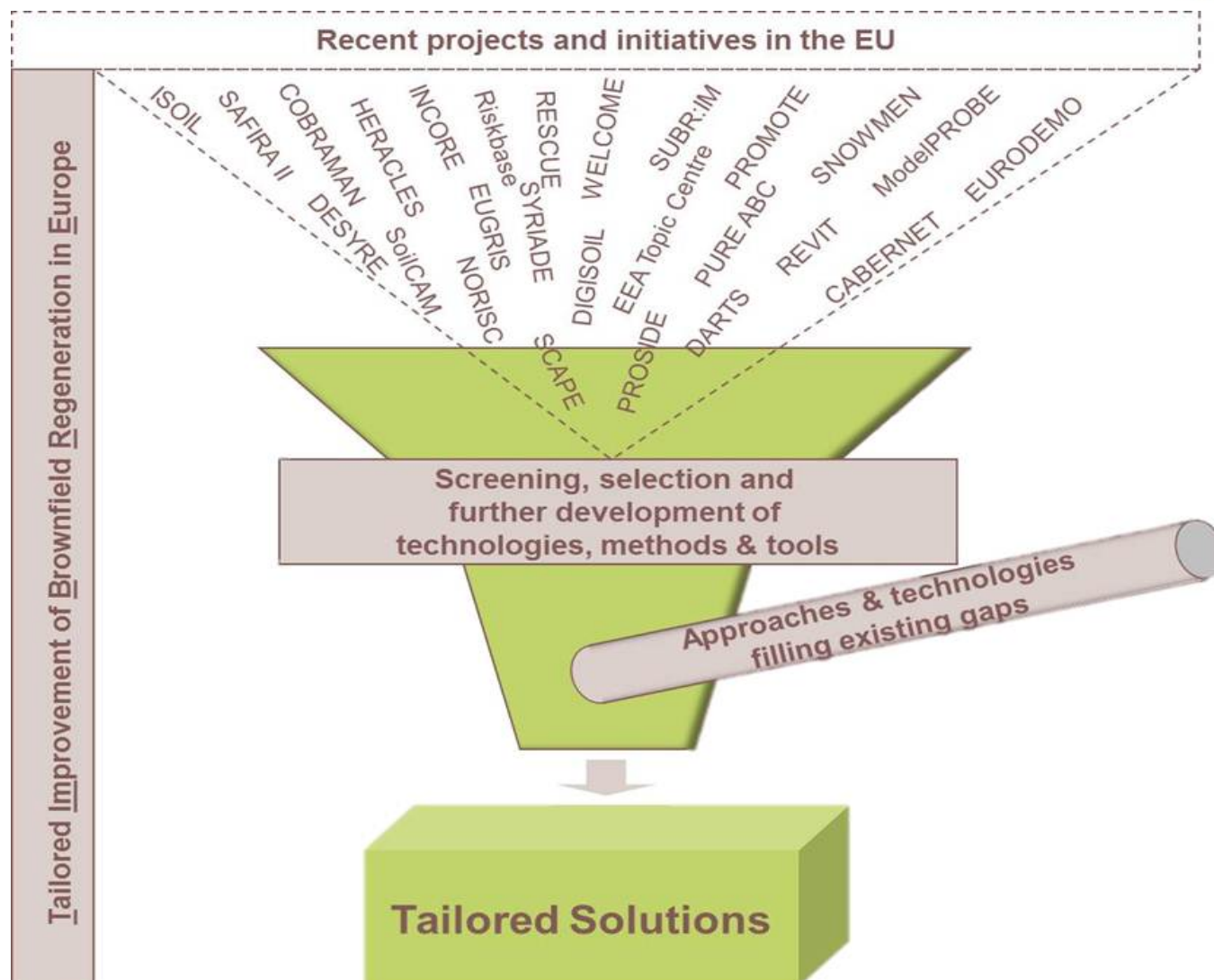
- ❖ Brownfields are typically **contaminated** (soil/GW)
- ❖ **Uncertainties** about (ecologic, economic, social) consequences dominate
- ❖ Diverse perspectives of **stakeholders**
- ❖ Intransparency of **evaluation**
- ❖ Consuming greenfields (**sealing**) is often the preferred



3. Enhancing existing knowledge



timbre

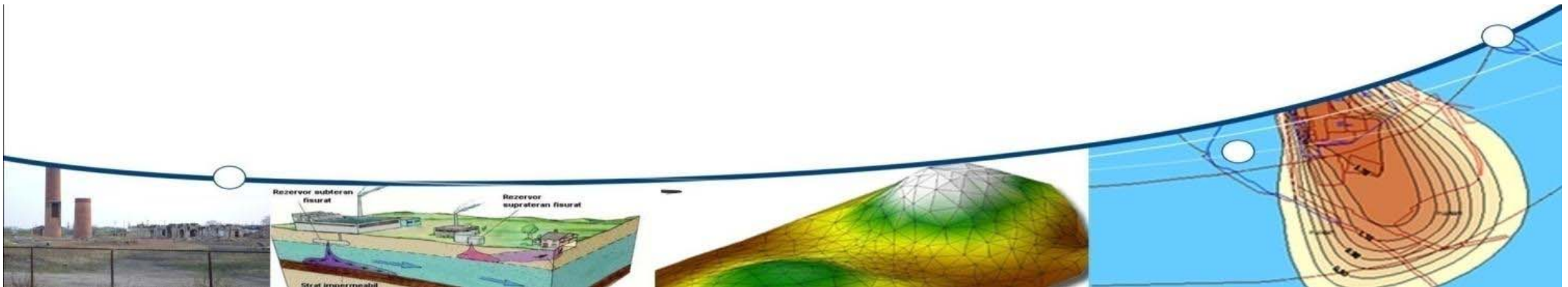


3. timbre project

Objectives – Improvement of



- ❏ Availability of relevant **information**
- ❏ “In-situ” or “on-site” **technologies**
- ❏ Understanding impacts of **decision structures**
- ❏ Tools for **prioritisation**
- ❏ Tools for **planning and assessment**



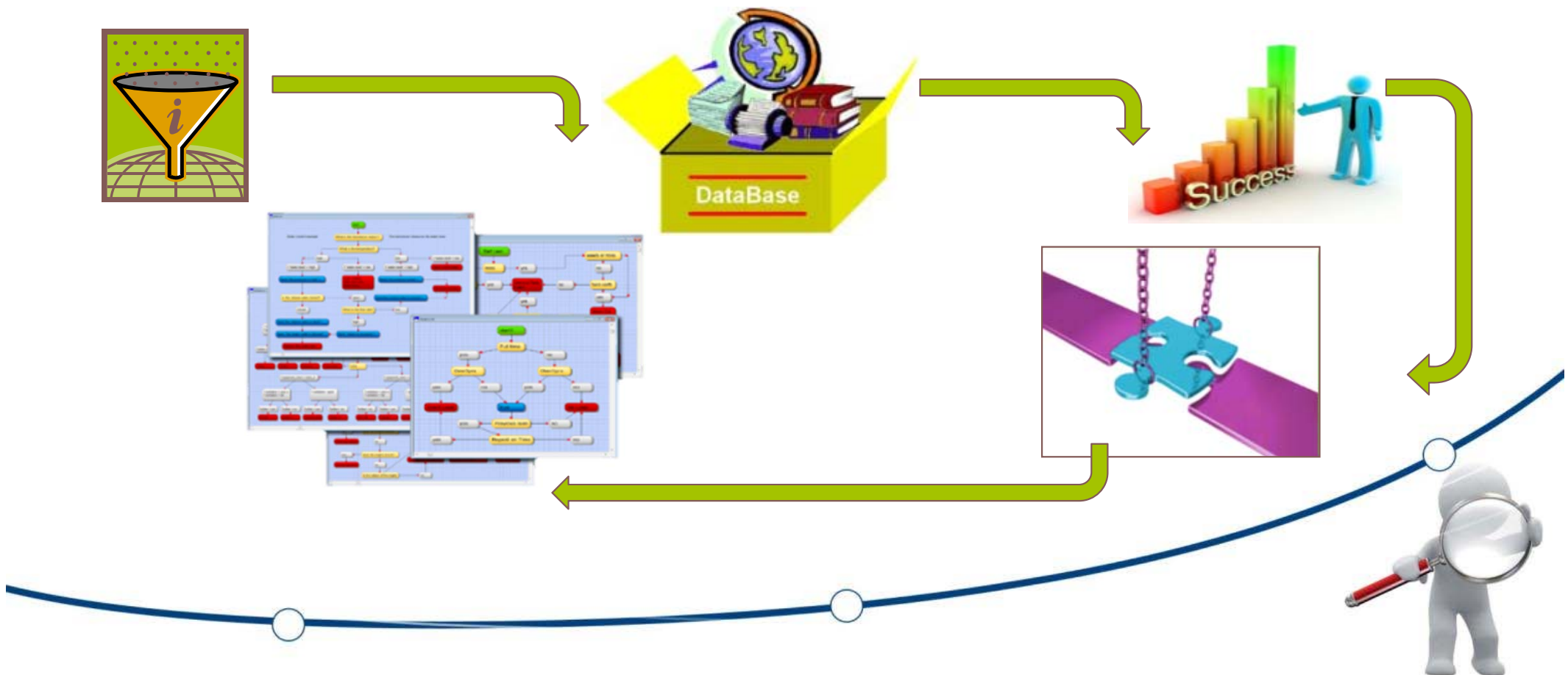


timbre

TAILORED

4. Tailoring to stakeholder needs

🏠 Tailored **information** on brownfields regeneration



4. Tailoring to stakeholder needs

📦 **Understanding**
local specificities,
possible barriers and
unused potential



📦 **Gathering** the
points of view of
stakeholders with
variable interests



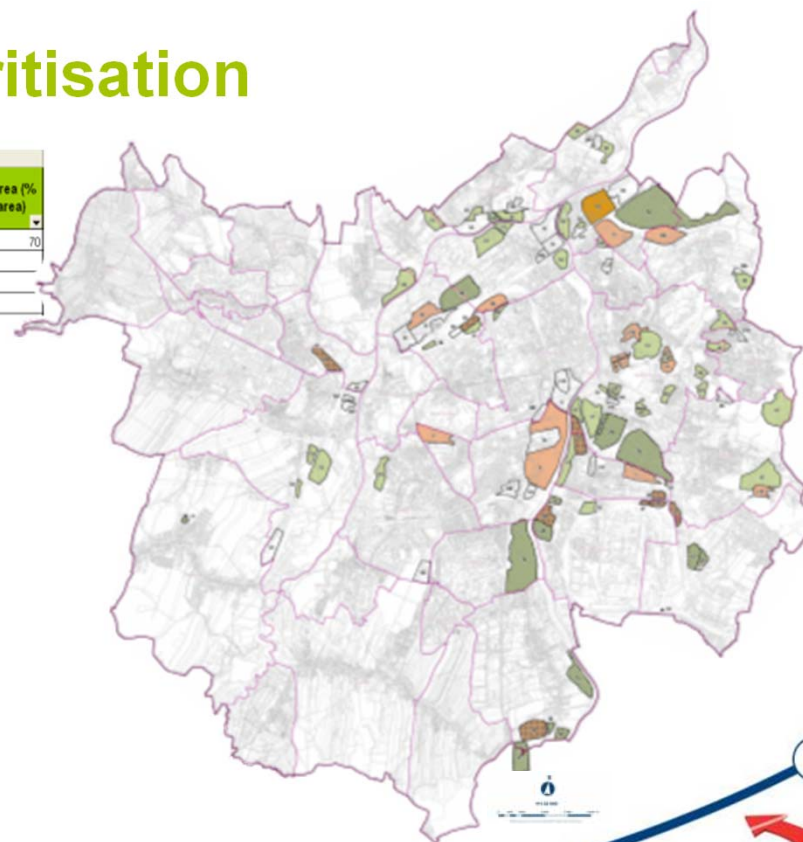
4. Tailoring to stakeholder needs



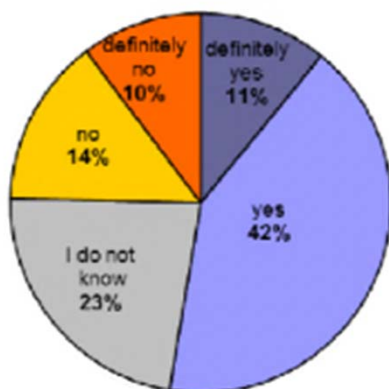
timbre

Understanding success for prioritisation

	A	B	C	D	E	F	G	H	I	J	K
1	ID	Name	Municipality	Municipality code	District	District code	Region	Region code	Geographical location	Total area (m ²)	Built-up area (% of total area)
2	1101	průmyslový areál	Adamov	581291	Blansko	C20641	Jihomoravský kraj	C2064	Průmyslový areál leží na úz.	194 218	70
3	1102	Adast – severní část	Blansko	581283	Blansko	C20641	Jihomoravský kraj	C2064	Areál leží v centru Blanska	20 000	
4	1103	Adast – jižní část	Blansko	581283	Blansko	C20641	Jihomoravský kraj	C2064	Areál leží v centru Blanska	38 000	
5	1104	býv. sklady Selio	Blansko	581283	Blansko	C20641	Jihomoravský kraj	C2064	Areál se nachází v severní	11 600	
6	1105	Úprava vody Metra a an	Blansko	581283	Blansko	C20641	Jihomoravský kraj	C2064	Areál leží v západní části B	10 100	



Are you afraid of potential pollution (water, soil) associated with brownfields (former factory, military barracks etc.)?



OSTRAVA



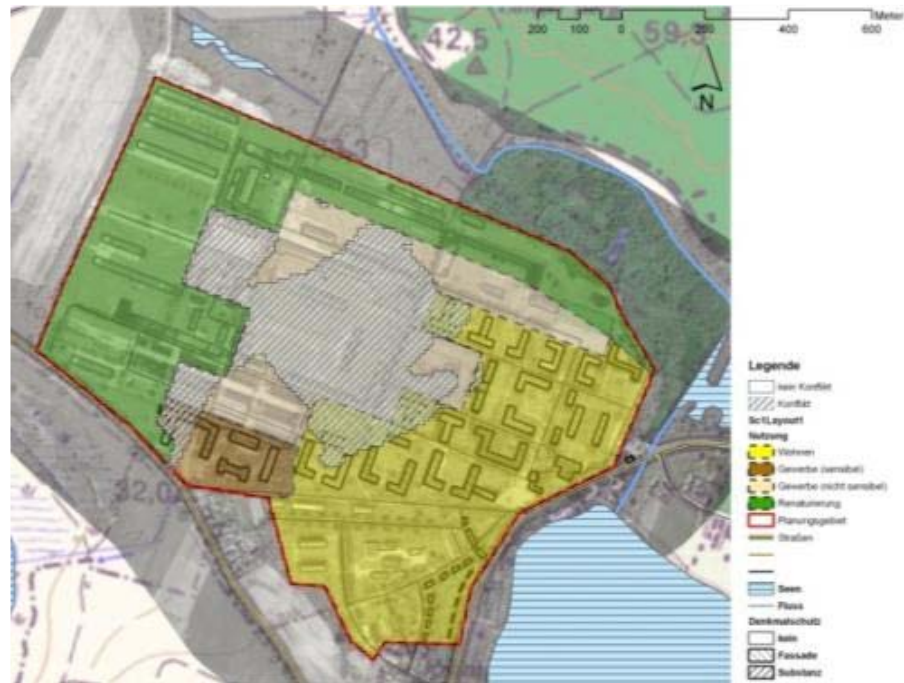
4. Tailoring to stakeholder needs

- ❏ Consolidate and improve “in-situ” or “on-site” technologies
- ❏ Demonstrate feasibility and potential of **phytoremediation** and specific **soil washing** with recycled foams
- ❏ Improve handling and re-use of building rubble



4. Tailoring to stakeholder needs

- Estimation of risks, costs and benefits of site re-use options
- Web based tool** to support decision makers and inform stakeholders

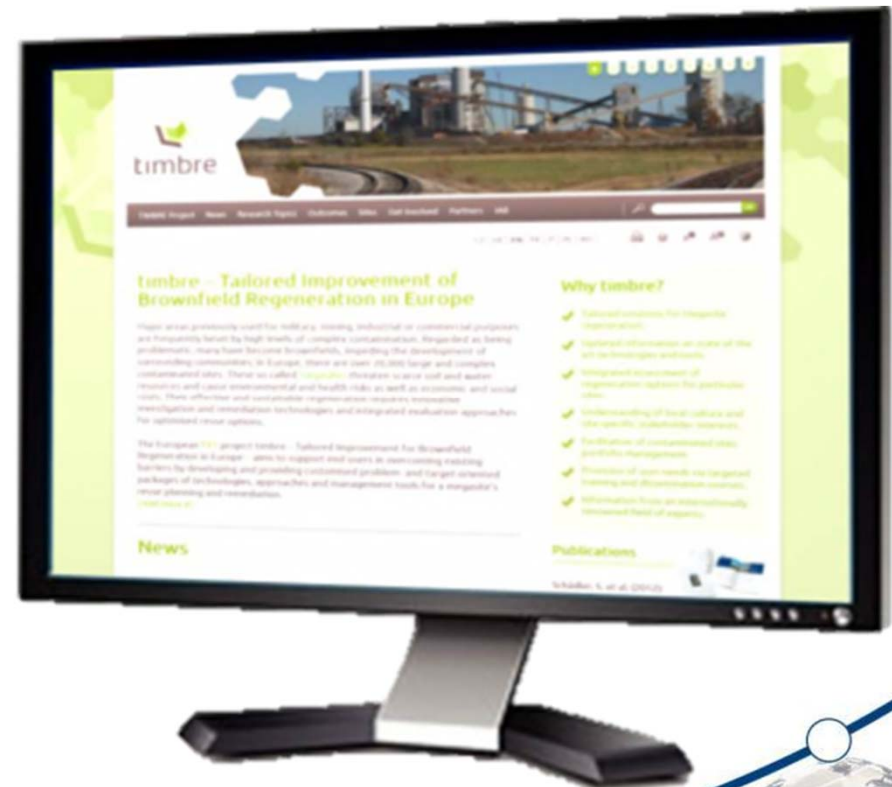


4. Tailoring to stakeholder needs



timbre

- ❏ Mission:
targeted dissemination
of timbre outcomes
- ❏ A end-user friendly
web-based
information platform
on brownfield regeneration
- ❏ Specific training opportunities
and **events** for stakeholders





timbre

Tailored Improvement of
Brownfield Regeneration
in Europe

Thanks for your attention!

Your questions, suggestions, comments are welcome!

<http://www.timbre-project.eu>

Contact: timbre-info@ufz.de

TIMBRE acknowledges the co-financing from
the European Commission – Framework Programme 7
Grand Agreement number 265364

