timbre

Tailored Improvement of Brownfield Regeneration in Europe

EXPERT SOFTWARE TOOLSUITE FOR PLANNING AND ASSESSMENT OF BROWNFIELD RE-USE OPTIONS

Type of product	Software (desktop)
Target group	Planners, site developers
Availability and costs	Free access on request

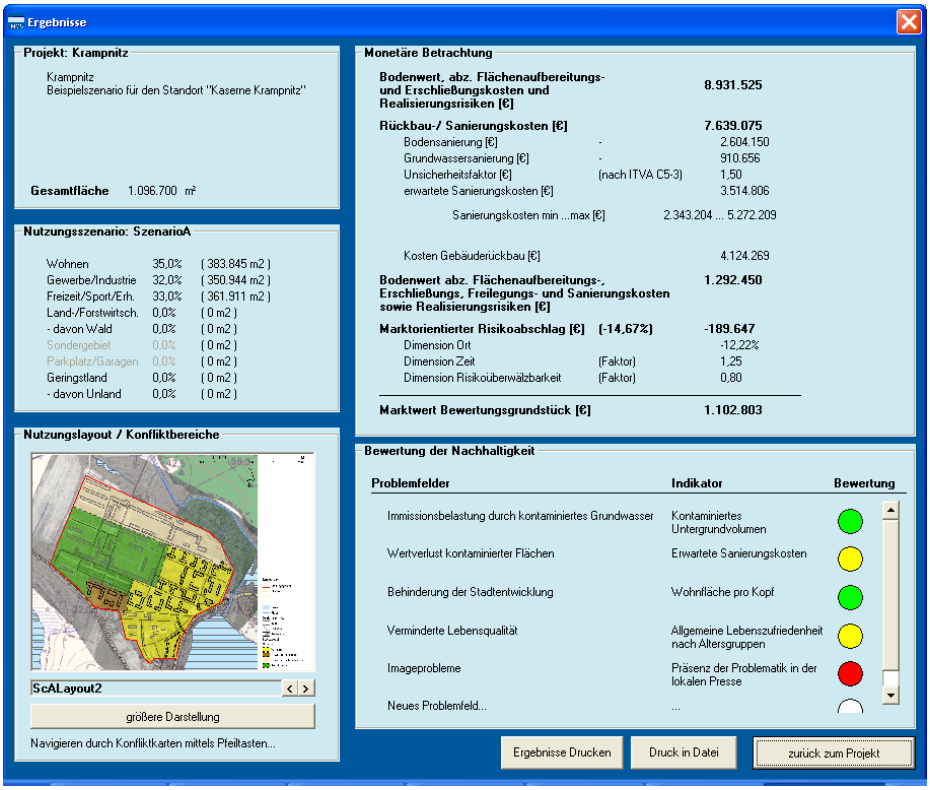
To foster the sustainable revitalisation of brownfields, researchers from the Helmholtz Centre for Environmental Research – UFZ and from the University of Tübingen's Centre for Applied Geosciences developed the Megasite Management Toolsuite (MMT), a software solution that aids and simplifies the integrated planning and assessment of redevelopment options. The software's networked evaluation modules are linked to a geographic information system and make up an intuitive decision support system which provides standardised, objective and spatial findings needed to take sound decisions.

In Timbre, the software has been further improved, extended and tailored for application in Poland and Romania.

The MMT is aimed at professionals, e. g. planners and decision makers in municipal authorities and private companies, who need to make informed judgements about

- ❑Clean-up costs (soil, groundwater, buildings)
- ❑Economic benefits and risks
- ❑Contribution to sustainable local and regional development

for particular re-use options.



Main window of MMT graphical user interface (here: in German; also available in Polish, English, and Romanian)

Contact: Michael Finkel – michael.finkel@uni-tuebingen.de
safira-info@ufz.de

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

SEVENTH FRAMEWORK PROGRAMME

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SELECTED RE-USE OPTIONS AT TIMBRE MODEL SITES

Type of product	Feasibility check of re-use visions to foster revitalization
Target group	Local planning authorities, site developers, local stakeholders
Availability and costs	Free access on Timbre website

For each of the brownfields serving as Timbre model sites (Krampnitz/Germany, Szprotawa/Poland, Hunedoara/Romania, and Radeberg/Germany), future site re-use options were designed and assessed.

Possible re-use visions in terms of future land use maps were created together with local stakeholders in a participatory design process supported by the Megasite Management Toolsuite (MMT).

The integrated assessment considers environmental, economic and social issues. Some exemplary results (economic performance of selected re-use options) at the former glassworks site in Radeberg (Saxonia, Germany) are shown below.

Land-use type	Option B	Option D	Option E
Residential	25,9	24,4	11,0
Trade & Commerce	22,2	16,0	17,3
Trade & Housing	21,7	18,8	24,4
Renaturation	12,8	34,7	-
Forest	-	6,1	26,0
Recreation	-	-	12,3
Green „Belt“	17,4	-	9,1

Land-use composition (in % of total planning area) of investigated re-use options

Option D: Land-use type distribution

Option	Land Value acc. to land-use composition (€)	Soil Remediation Costs (€)	Deconstruction Costs (€)	Extra Charge (€)	Preliminary Market Value (€)
B	538.000	512.000	394.000	181.000	-550.000
D	472.000	752.000	394.000	229.000	-904.000
E	429.000	407.000	394.000	160.000	-532.000

Results of the economic assessment (assuming average values of soil contamination levels)

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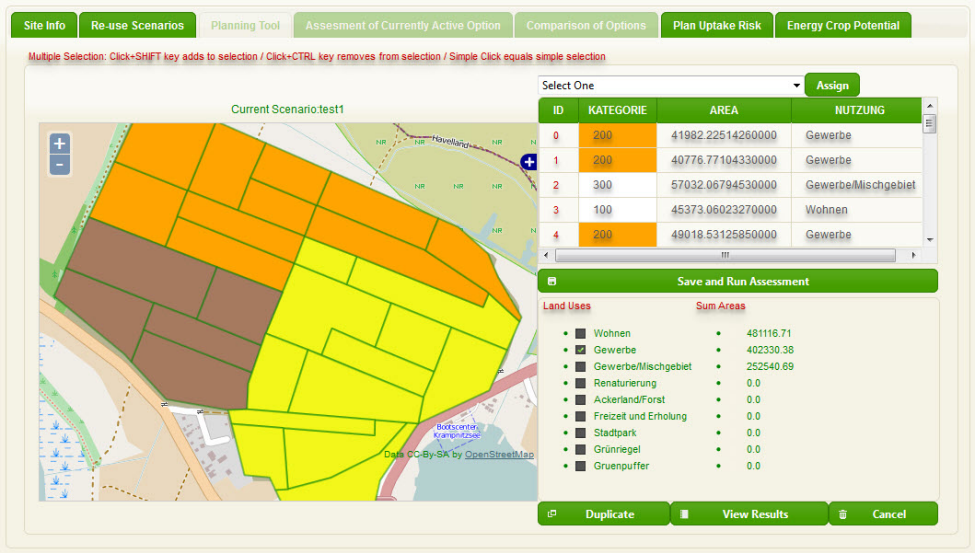
NON-EXPERT SOFTWARE TOOL FOR DEVELOPING RE-USE VISIONS FOR BROWNFIELDS

Type of product	Software (web platform)
Target group	Planners, site developers, concerned stakeholders
Availability and costs	Free access on demand (after registration)

In collaborative efforts of workpackage 6 partners, a web-based tool is being developed that particularly addresses the information and participation of a wider group of interested people in the process of planning and comparative assessment of possible options for re-using a brownfield.

The tool represents a "light" version of the expert tool "Megasite Management Toolsuite (MMT)" and offers additional assessment modules. With its intuitive and easy-to-use graphical user interface it is specifically designed for interested stakeholder incl. non-experts who can use the tool to learn about re-use options currently subject to discussion



Web-based planning tool graphical user interface for designing re-use options based on given planning units

and to participate by interactively designing their own future land use visions. These visions can be assessed in terms of the following parameters:

- ❑ remediation and deconstruction costs required to implement the re-use option,
- ❑ market value of the prepared land,
- ❑ sustainability of the planned re-use option,
- ❑ risks from dietary intakes of vegetables and other plants grown on the, and
- ❑ potential to (partly) use the site for the production of bioenergy.

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