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US - German Cooperation for Further Development of *Decision Support Systems for Sustainable Contaminated Site Revitalisation*



Leipzig



Baldwinsville, NY

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Outline

- Background – The Early Years (Phases 1-2)
- Phase 3 – Redevelopment of Potentially Contaminated Sites
- SMARTe
- Phase 4 – Sustainable Land Revitalization
- DE.SMARTe
- Contact Information; Websites





History of Collaboration between US and Germany

A phased approach.....

- Workgroup Began in 1990
- Initial Focus on Cleanup Technologies
- In 2000 -- Focus on Redeveloping Potentially Contaminated Sites
- In 2006-- Focus on Sustainable Land Revitalization



Ultimate Goal



St. Louis, Missouri



Stuttgart

*Working together toward common goals
and a shared vision*



Phase 3 Program Goal and Objectives

Develop Tools and Techniques to Facilitate Revitalization Of Potentially Contaminated Sites

OBJECTIVES:

- Facilitate Equitable Land Use
- Facilitate Faster Redevelopment of Sites
- Allow Greater Independence from Public Money
- Enhance Benefits to Society

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Phase 3 Approach

- Step 1: Baseline workshops to **identify obstacles** to revitalization
- Step 2: Feasibility study to **determine which obstacles** the U.S.-German Bilateral Working Group could address
- Step 3: Research and develop **tools and techniques to overcome obstacles** to revitalization
- Step 4: **Beta-test tools and techniques** to determine if they facilitate revitalization



SHARE IDEAS AND EXPERIENCES

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Phase 3 Tools to Overcome Obstacles (Products 2000-2005)

- Documentation of 7 International Practitioners-workshops
- **Sustainable Management Approaches and Revitalization Tools – electronic (SMART-e)** [U.S.EPA] available at smarte.org
- Start-Up-Brachfläche – Arbeitshilfe (Germany) available at www.vegasinformatik.de/startup/
- Report: Vapor Intrusion Issues at Brownfields Sites (ITRC)
- GEPARD – Bilingual Business Plan - Outlines an Interactive Calculation Tools



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Phase 3: Workshop Summary (2000-2005) – CD Ordering information at smarte.org

<u>Workshop</u>	<u>Location</u>
Economic Tools <i>11-12 November 2002</i>	Charlotte, North Carolina
Project Management and Market Strategies <i>7-8 May 2002</i>	Saarbrücken, Germany
Risk Assessment/Communication Tools <i>23-24 October 2003</i>	Portland, Oregon
Social Aspects <i>17-18 June 2004</i>	Leipzig, Germany
Sustainable Reuse <i>16-17 September 2004</i>	St. Louis, Missouri
Summary Conferences <i>31 Oct-1 Nov 2005; 18-19 April 2005</i>	Berlin, Germany Denver, Colorado



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SMARTe Overview

Sustainable Management
Approaches and Revitalization
Tools – electronic

Overcome Revitalization Obstacles



Content: Information, Resources, Case Studies, Links; Checklists; Identify questions to ask

Analysis Tools: Technical and Non-Technical

Search Engine: Find Specific Info

My Project: Evaluate Reuse Options

SMARTe 2008 is **freely** available at: smarte.org

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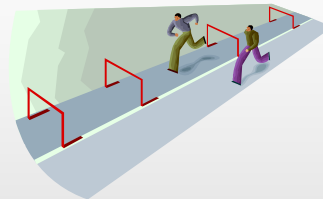


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Obstacles to Revitalization

Challenge: To remove
obstacles to revitalization



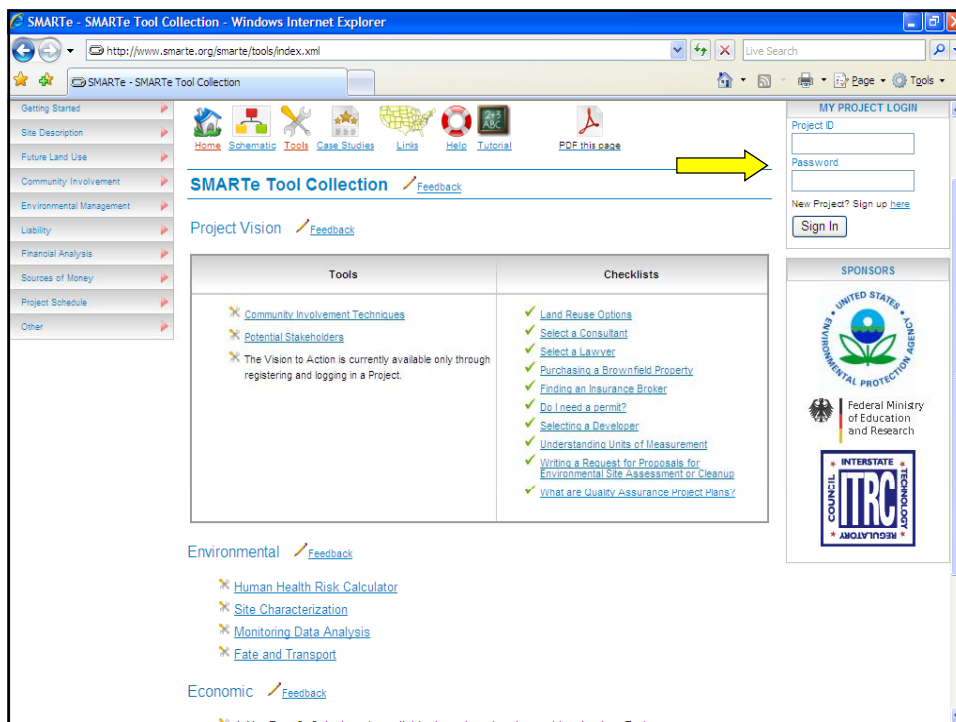
Short list:

- Identifying market and non-market costs and benefits of revitalization options
- **Identifying private and public financing options**
- Evaluating and communicating environmental risks
- Identifying and evaluating characterization, remediation, and long-term monitoring technologies
- Identifying state-specific information

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US German National Working Group
www.usgerndi-wg.org



tasko
CENTRE OF COMPETENCE
LEIPZIG

SMARTe 2008 – My Project



Park



Speedway



Housing



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Phase 4: Program Goal and Objectives (2006-2010)

Develop Tools and Techniques to Facilitate Sustainable Land Revitalization

OBJECTIVES:

- Facilitate **Environmentally, Socially, and Economically Viable** Land Use
- Facilitate **Transfer of Information Both Nationally and Internationally**
- Allow Greater Independence from Public Grants
- Enhance Benefits to Society **and the Environment**



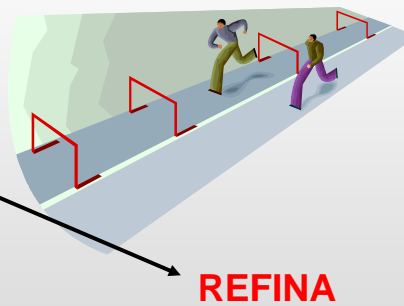
Phase 4 – Approach (2006-2010)

Step 1: Baseline workshops to identify
obstacles to **sustainable land revitalization**

Step 2: Feasibility study to determine which
obstacles the U.S.-German Bilateral
Working Group can address

Step 3: Research and develop tools and
techniques and technologies to overcome
obstacles to **sustainable land revitalization**

Step 4: Beta-test tools and techniques to
determine if they facilitate **sustainable
land revitalization**



REFINA



SHARE IDEAS AND EXPERIENCES



Bilateral Cooperation – Phase 4

- Cooperation based on REFINA projects with „volunteer“ practitioners in the US
- Projects should drive and benefit from the cooperation
- International cooperation
 - to learn from each other
 - to prove REFINA concepts
 - to strike new and unconventional paths in both countries



Phase 4 – Focus Areas (2006-2010)

- Brownscape Design
- Regional and Local Land Revitalization Planning
- Project Management





Phase 4 – NY Workshop topics (8-9 May 2008)



Regional Infrastructure and
Transboundary Management



Brownscape Design



Financial Management



Cross-cutting – Regional planning 21
Criteria for Site Prioritization



Phase 4 – Potential Products

- **SMARTe Tools and Expansion**
- Regional Revitalization Planning Criteria
- Workshop Products
- Project Management Tools/Approaches (schedule, budget, maintenance, training programs)
- Institutional Controls Tools, Evaluation
- Design Criteria
- Model Design Approaches (including visual simulation tools)
- Case Studies
- Other Revitalization Tools



DE.SMARTe

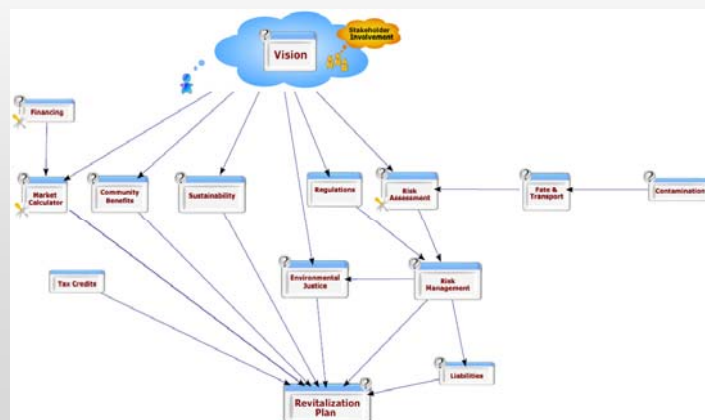
- Joint Co-operation Project U.S. EPA/UFZ/TASK
- 2008 – 2011
- “Mirror” Site DE.SMARTe.org
- New Tools (sustainability, cost estimation, spatial planning)
- Beta Tests with External Experts
- Joint U.S. EPA/TASK Workshops 2009, 2010

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DE.SMARTe – cont’d

- Stock Taking SMARTe Architecture



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DE.SMARTe – cont'd

- Translation of Applicable Tools and Guidelines:
 - Risk Assessment
 - Risk Management
- Extension of Existing Tools:
 - Property Valuation/Stigma Effects
 - Quantification of Sustainability Criteria
- New Tools
 - Selection of Land Restoration Technologies
 - GIS Based Landuse Maps
 - GIS Based Probabilistic Conflict Analysis

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DE.SMARTe – cont'd

- DE.SMARTe.org will:
 - Be Public and Free Available
 - Be Based on Open-Source Software
 - Integrate Approaches from Brownfield Revitalization Projects (REFINA, SAFIRA II)
 - Provide Tools for External Use (SMARTe.org)
 - Offer Training Courses on GIS Based Brownfield Revitalization Planning

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Web Sites

US-German Bilateral Working Group

<http://www.bilateral-wg.org/>

TASK

www.task-leipzig.info

REFINA

www.refina-info.de

SMARTe

smarte.org

START-UP Plan

www.vegasinfo.de/startup/

Interstate Technology and Regulatory Council

www.itrcweb.org

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