

# Visions for circular land use management

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PROJEKTGRUPPE STADT+ENTWICKLUNG

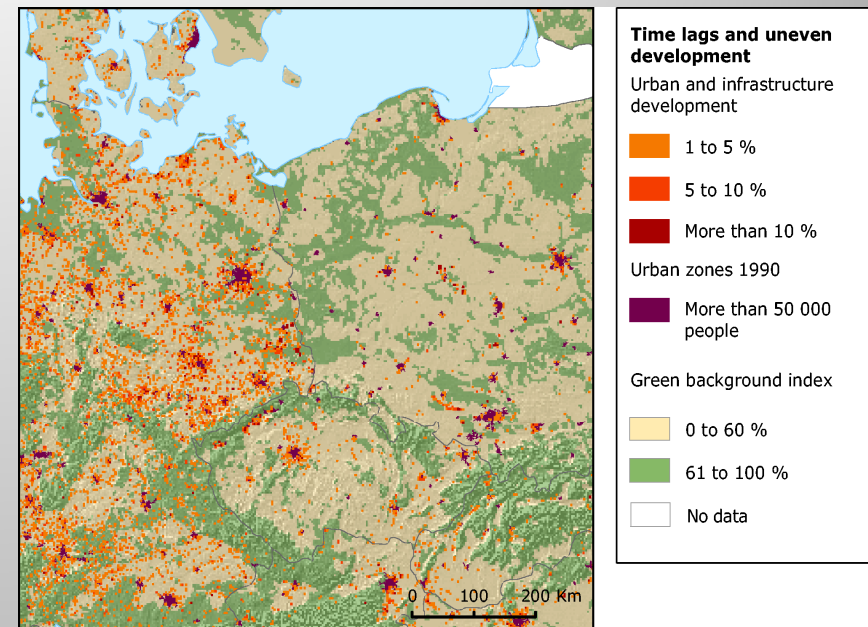
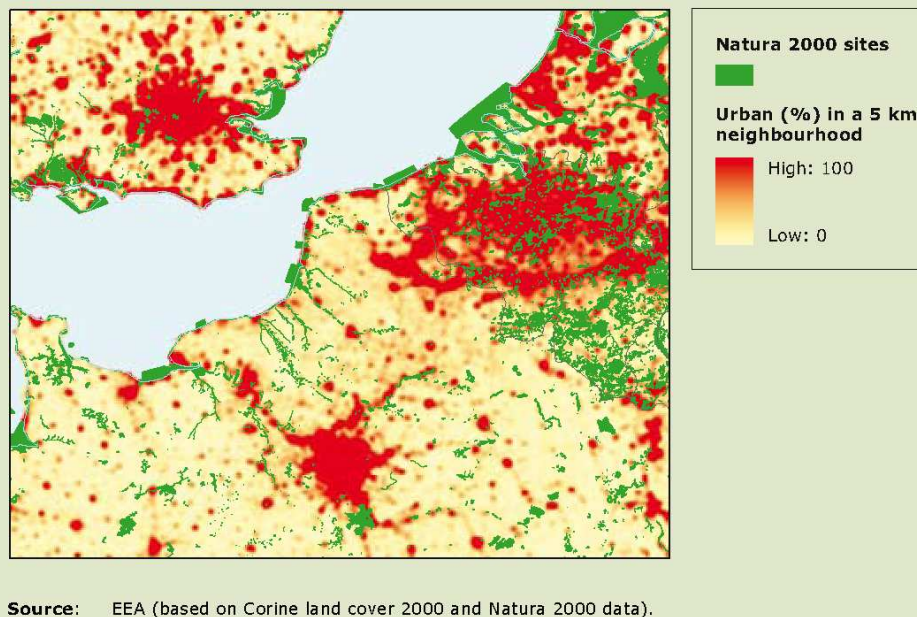
Utrecht 10/2011



# Dynamics of land development



# Urban Sprawl in Europe

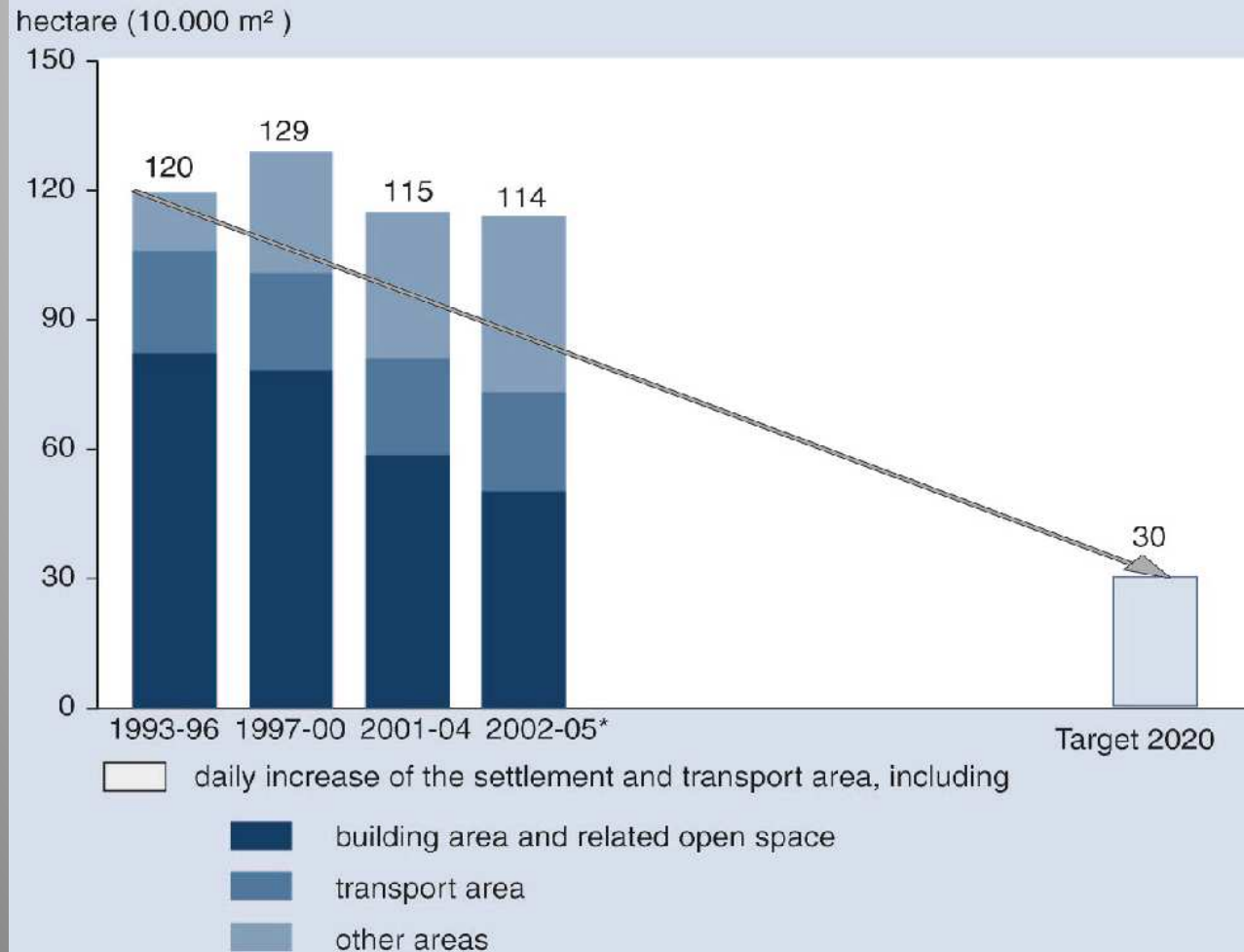


Source: EEA

- Urban expansion 1-2 % per year
- Urban sprawl around metropolitan regions
  - Decreasing settlement density
  - More and more brownfields

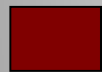
# “30 ha Goal”

## What has been achieved?



- Land consumption is decreasing, especially for building/business and related open space.

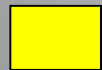
# „Greenfield“ development and brownfields in Leipzig



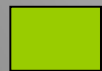
Brachflächen (Karte ab 2 ha)  
**226,8 ha**



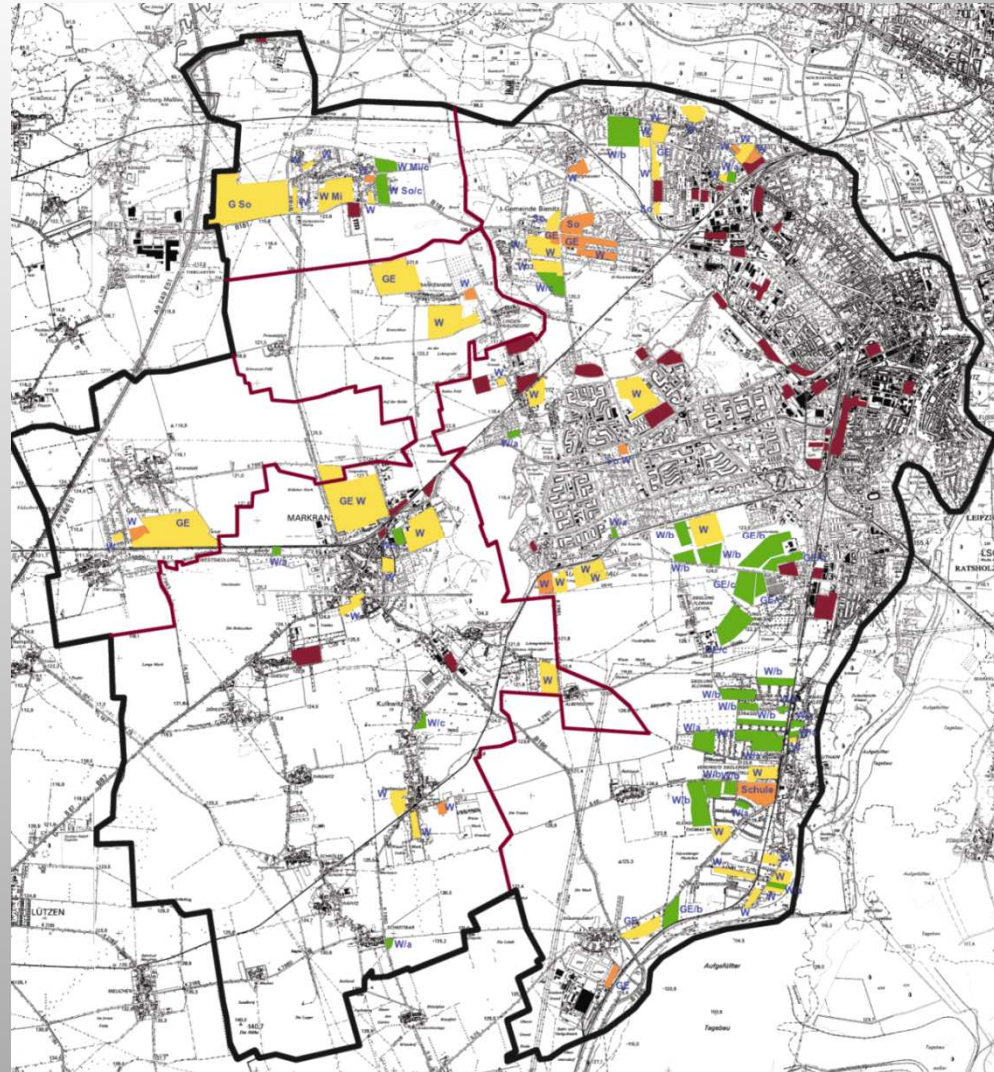
baulich voll realisierte (>90%)  
Siedlungserweiterungen  
**69,4 ha**



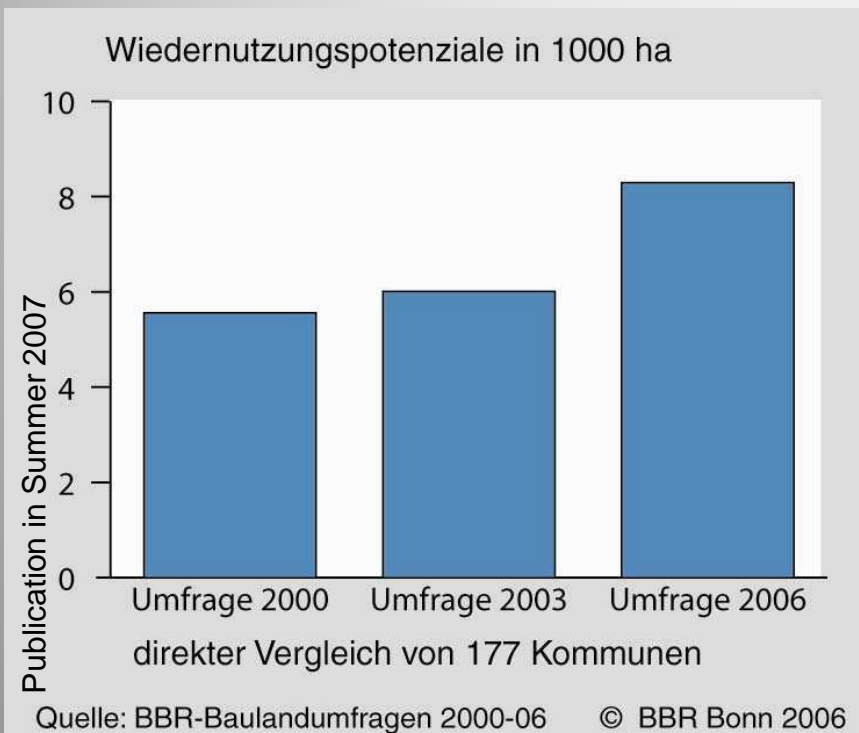
teilrealisierte Erweiterungen (<90  
%, Mindeststand: Erschließung)  
**424 ha**  
**247 ha realisiert**  
**177 ha Reserven**



unrealisierte Erweiterungen  
**163,1 ha**



# Increasing amount of brownfields in Europe: The German example



Estimation for Germany: 63.000 ha;  
31.000 ha West; 32.000 ha East

More new areas are falling in disuse  
than have been recycled

im  
Kreis



# Economic drivers - Industrie



Fläche  
im  
Kreis



# Economic drivers - Commerce





# Economic drives - services



Fläche  
im  
Kreis



# Environmental Drivers



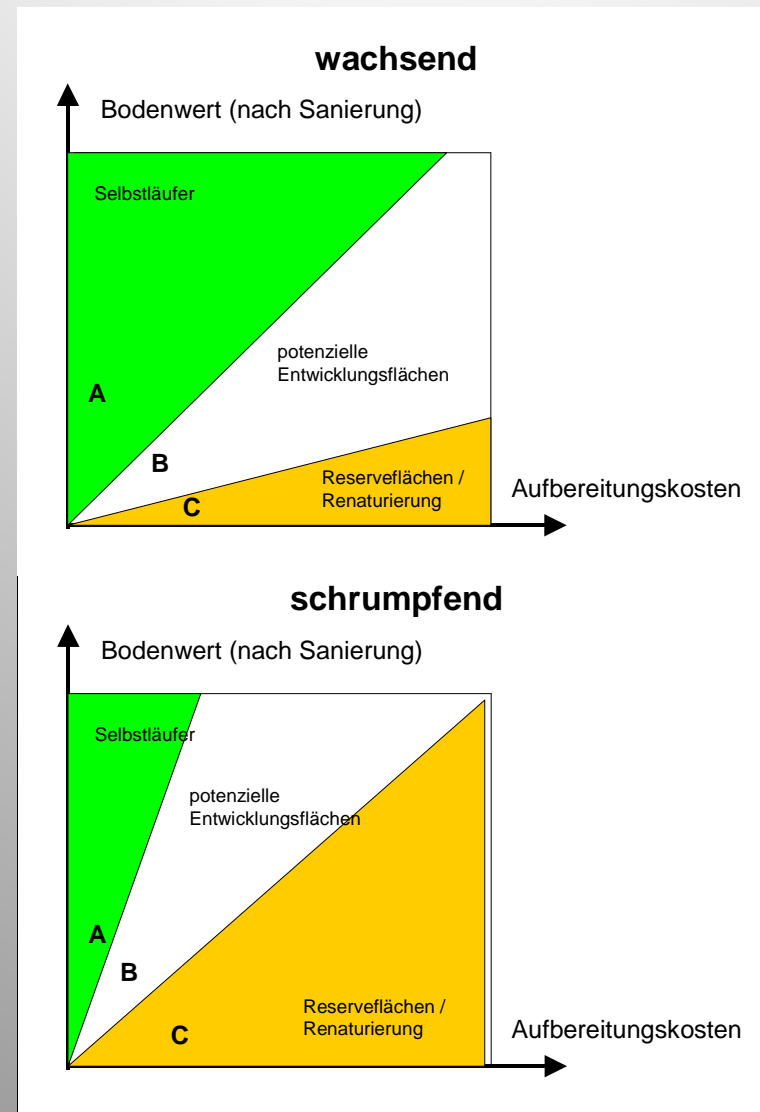
# Demographic drivers



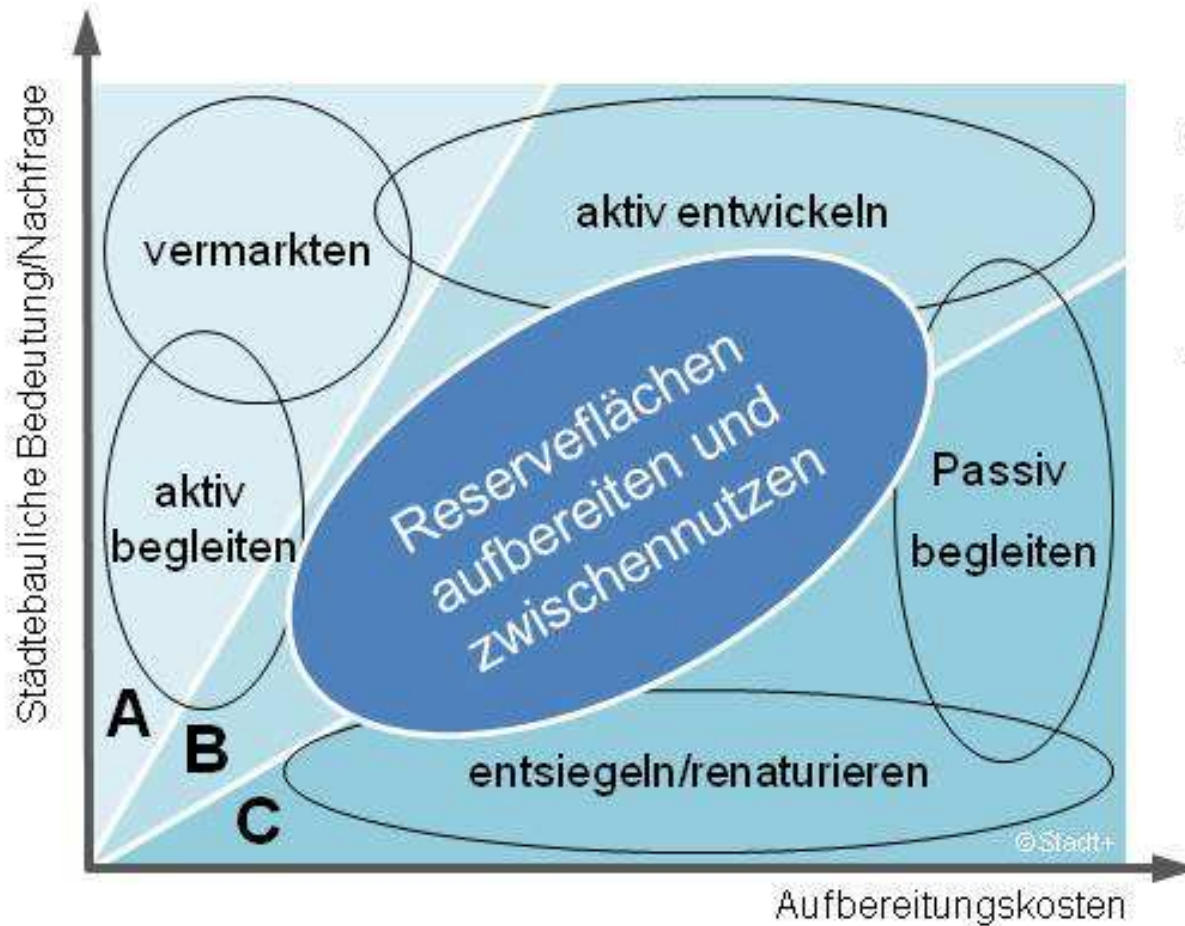
Fläche  
im  
Kreis



# Typology of brownfield land: ABC - Model



# ABC-Model



- A: Selbstläufer
- B: Potenzielle Entwicklungsflächen
- C: Interventions- und Reserveflächen

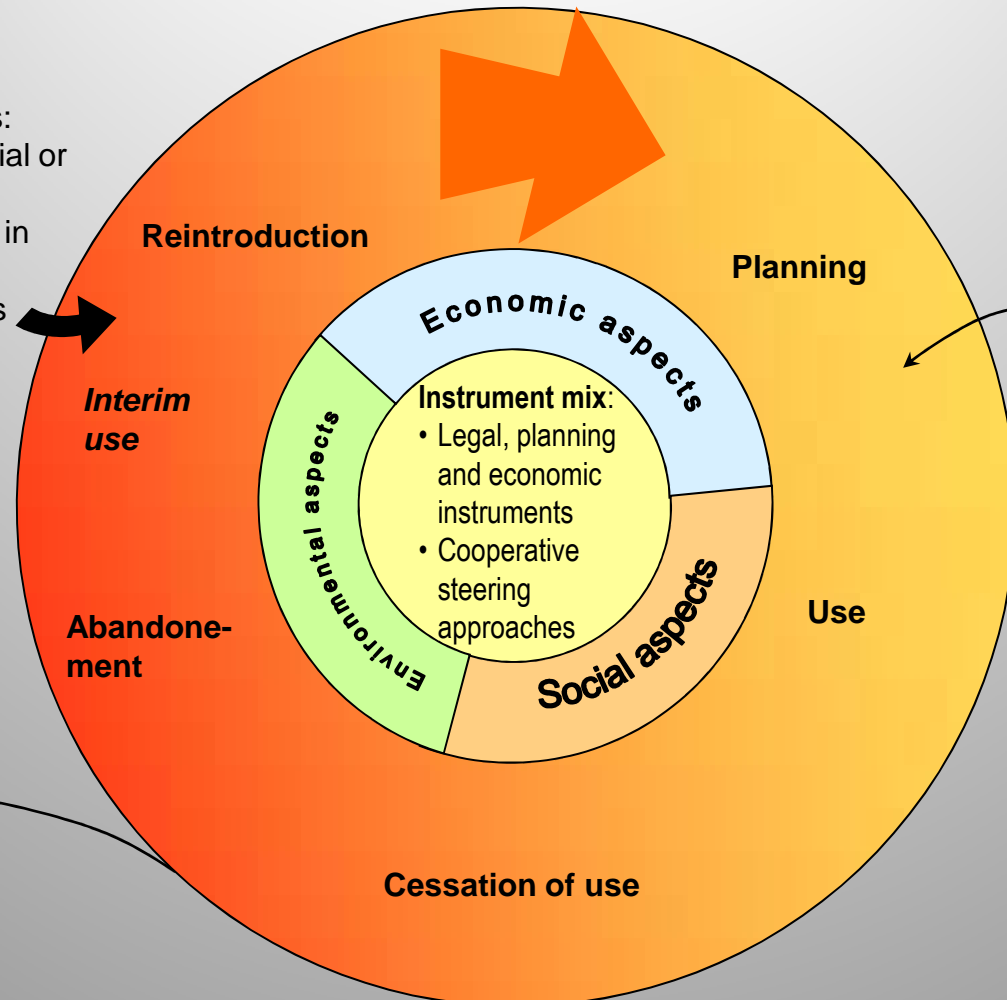


# Circular Land Use Management

Mobilisation of site potentials:

- brownfields (trade, industrial or military)
- spaces between buildings in town and city centres
- urban redevelopment sites
- sites undergoing planning

Rejection of sites which are unsuitable for new uses on a long-term basis



Release of new sites for construction in the green belt

Source: Research group "Fläche im Kreis", 2005)

# What means „Circular land use management“?

- a different philosophy of land use, expressed by the motto: “avoid – recycle – compensate”
- management approach
- intends to provide an integrated political and governance approach
- implements at both local and regional level and combines these main two in an integrated urban and regional land development policy
- cycle relies on the interplay between strategies and instruments (instrument mix)

# Stakeholders



- Local and regional administrations (planning, environmental and economic)
- Private interest groups (e.g. real estate organisations)
- Private and public land owners,
- Developers,
- Citizen
- Environmental organisations



## Action fields

- Planning and legal instruments
- Information, Management, Cooperation
- Budget, Investment and funding programs
- Marketing

<b>1. Planung</b>	<b>4. Kooperation</b>
1.1 Regionalpläne	4.1 Projektbezogene Kooperation öffentlicher und privater Akteure
1.2 Interkommunale Planungen	4.2 Projektübergreifende Formen öffentlich-privater Kooperation
1.3 Beeinflussung des Flächenverbrauchs bei der Aufstellung von FNP	4.3 Rahmenvereinbarungen/abgestimmte Strategien
1.4 Ermittlung des Flächenbedarfs	<b>5. Investitionen und Förderprogramme, Budget</b>
1.5 Stadtumbaukonzepte	5.1 Förderprogramme
1.6 Sonstige Quartiers- und Standortplanungen	5.2 Bereitstellung finanzieller Ressourcen aus den Haushalten der Gebietskörperschaften
1.7 Beeinflussung des Flächenverbrauchs bei der Aufstellung von Bebauungsplänen	<b>6. Vermarktung</b>
1.8 Konzepte für Kompensationsflächen (Flächen für Ausgleichs- und Ersatzmaßnahmen), Kompensationsflächen- und Kompensationsmaßnahmenpools	6.1 Vermarktung durch öffentliche Akteure
1.9 Befristung von Nutzungsmöglichkeiten	6.2 Immobilienwirtschaftliche Vermarktung
1.10 Zwischennutzungen	<b>7. Anordnungen</b>
1.11 Renaturierung	7.1 Städtebauliche Entwicklungsmaßnahmen
<b>2. Information</b>	7.2 Städtebauliche Sanierungsmaßnahmen
2.1 Informatorische Instrumente zur Beeinflussung der Grundstückseigentümer	7.3 Baugebot
2.2 Informatorische Instrumente zur Beeinflussung flächenpolitischer Entscheidungen in Kommunalpolitik und Verwaltung	7.4 Rückbaugebot
2.3 Der bodenpolitische Grundsatzbeschluss	7.5 Festlegung von Schutzgebieten durch die Naturschutzbehörden
<b>3. Organisation</b>	<b>8. Sonstige Instrumente</b>
3.1 Organisation innerhalb der Verwaltung	8.1 Freiraumerhalt und -aufwertung: Erholungsflächen, Sondernutzungen im Außenbereich (Unter Glas-Produktion), Landwirtschaft
3.2 Aufgabenverteilung in einer stadtreionalen Flächenkreislaufwirtschaft	

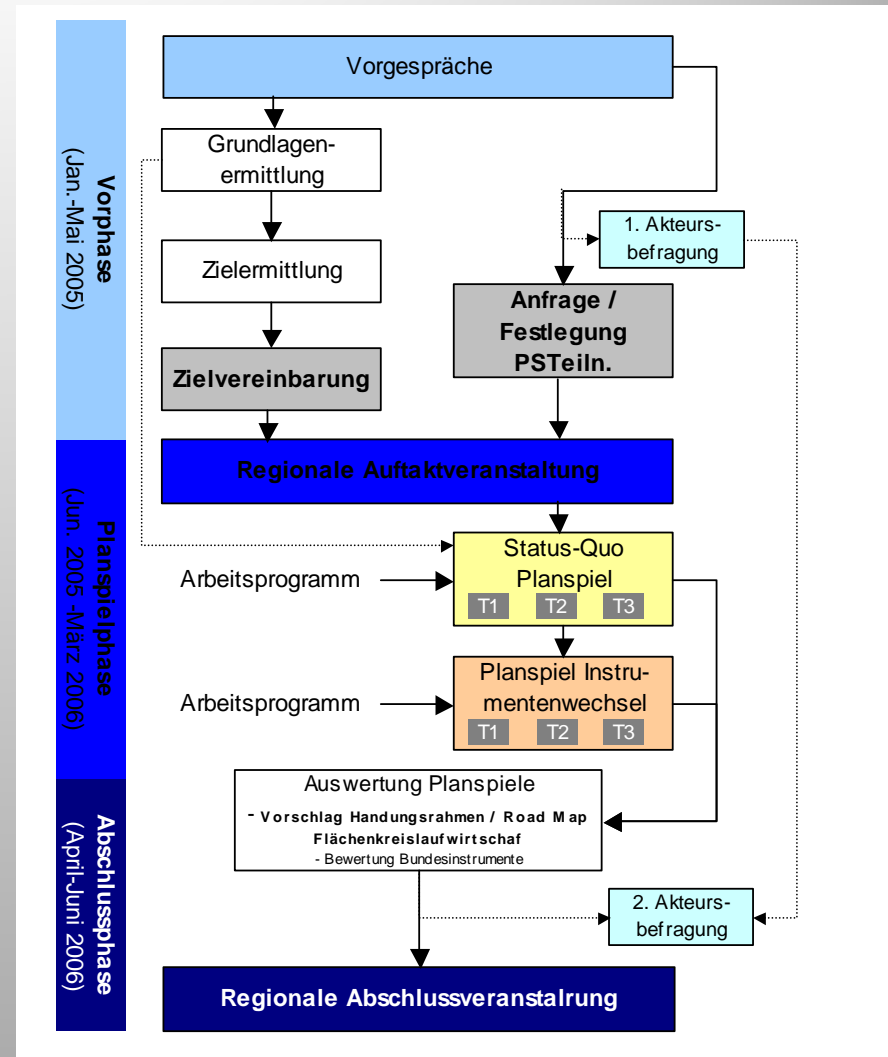
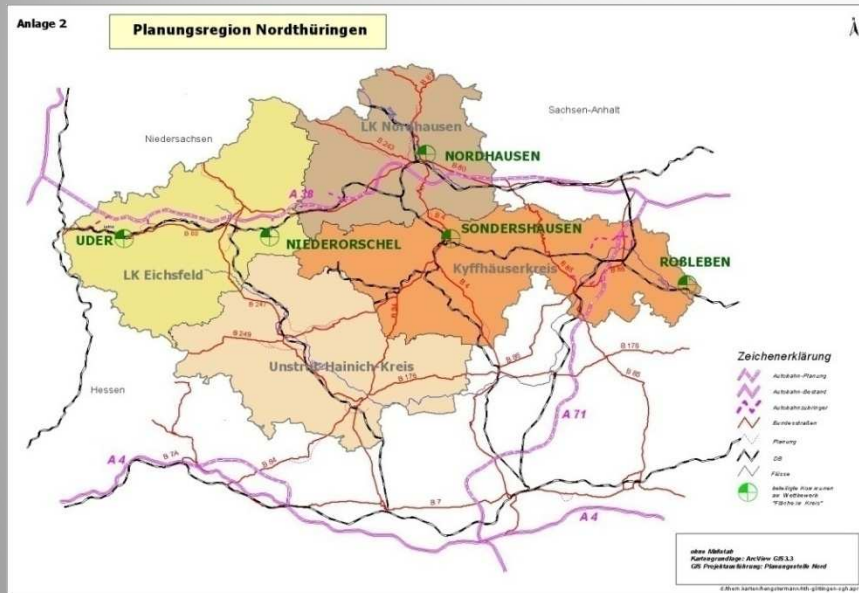
# Status-quo-Planspiel: Instrumente



# Instruments - Examples

- New information tools on land balance and land development cost
- Different practice in Regional planning/Green Belt Concepts
- Land value tax (instead of actual property tax)
- Liability for dismantling of unused properties / compulsory insurance
- “Low Cost” reclamation concepts (C-sites)
- Revolving funds (ERDF, JESSICA)
- **Regional instrument mix in a action plan**

# Simulation Games



# Data management and BF navigator

Flächenmanagementsystem Stadt Freiberg - [Startformular]

Datei Ansicht Bearbeiten Einfügen Format Datensätze Extras Fenster ?

Hauptmenü Datenerfassung Datenrecherchen Dokumentationen GIS Berichte / Reports Datenimport / Datenexport Notizen Info Beenden

Frage hier eingeben

**Flächenmanagement und Bodenentsiegelung in Ober-, Mittel- und Unterzentren des Freistaates Sachsen**

**Baulücken- und Brachflächendatenbank Stadt Freiberg**

Datenerfassung / Datenansicht

Datenrecherche

Dokumentation / GIS-Anbindung

Berichte

Datenimport / Datenexport

Handbuch

Info

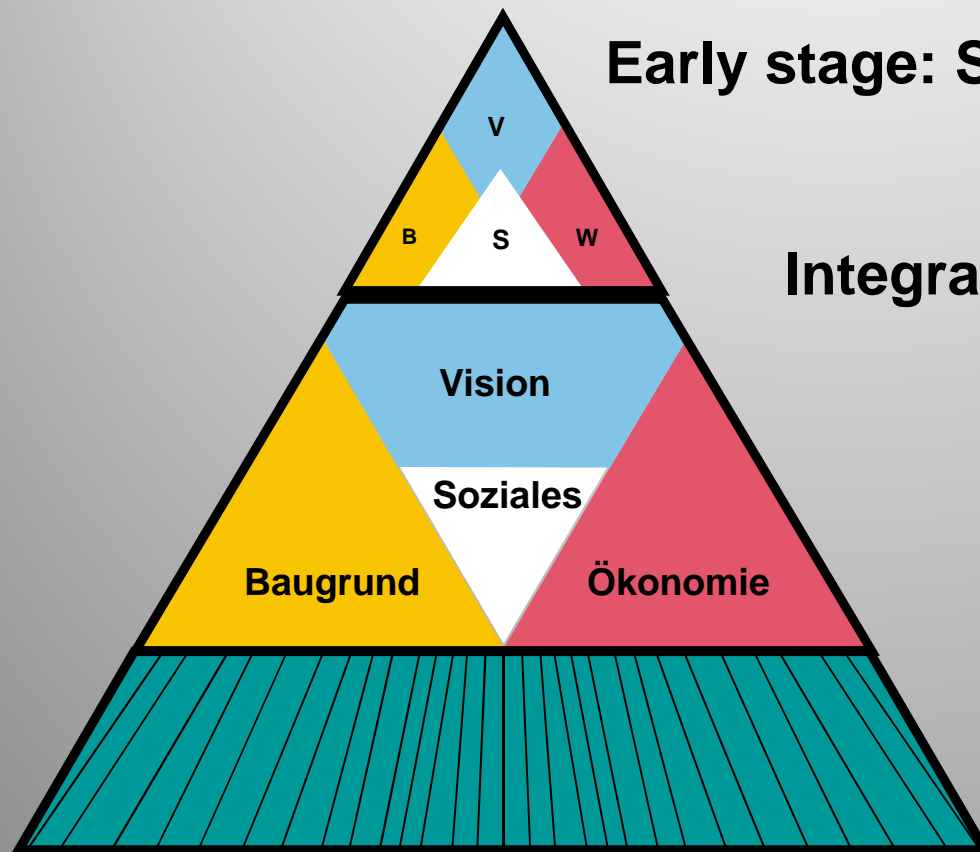
Anwendung beenden

Freitag, 27. Oktober 2006

11:49:59

Berechnung läuft . . .

# Urban and environmental planning



Early stage: Start-Up-Plan

Integrated approach




Fläche  
im  
Kreis



# Interim Use



Diagram of a solar panel array layout on a green field. The array consists of 20 panels arranged in 4 rows and 5 columns. The panels are labeled 'Nachführbare Solarmodule mit jeweils 52 m<sup>2</sup>' and 'Zwischenteil'. The diagram is titled 'Übergabe-/Tiefbeton' and 'Ambrosius - Marthaus - Straße'.

<b>KOSAR: Zwischennutzungskonzept Oaschtz</b>	
Plangrundlage: Übergabe Lagefläche ohne Maßstab	
Projekt: KOSAR	Auftraggeber: VEGAS
Bearbeiter: Schenk / Erdmann	 reconsite <small>rekonstruktives Consulting für              Mehr und wider weniger</small>
Datum: Oktober 2009 / P-007-6	

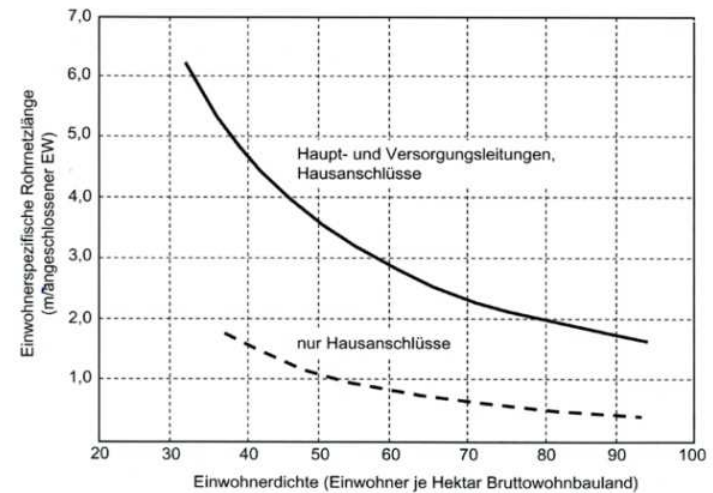


# Economic Instruments

## Calculator on land development costs



Abbildung 1  
Abhängigkeit der Netzlänge der Wasserversorgung von der Siedlungsdichte am Beispiel der Landeshauptstadt Erfurt



Quelle: verändert nach Schmidt 2000



# CircUse Pilot training course

## Six main modules of the pilot trainings course

**Module 1:** Land use impact - Problem analysis  
and interactions

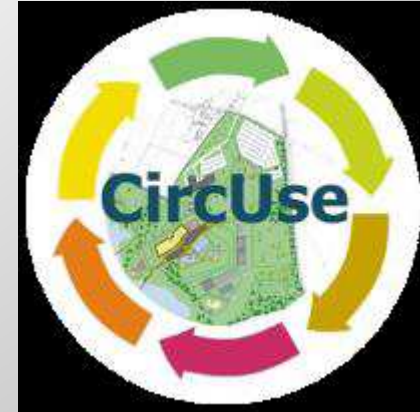
**Module 2:** CircUse - Principle, aims and strategy

**Module 3:** Pilot municipality - Land potentials and development scenarios

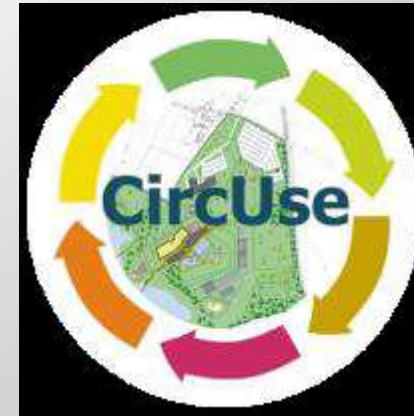
**Module 4:** Stakeholders

**Module 5:** Instruments

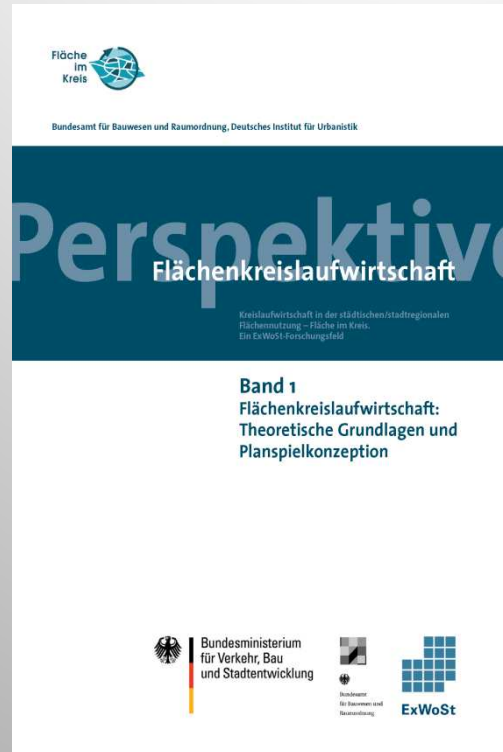
**Module 6:** Action plans



# CircUse Pilot training course



# Further Information/ Publications



**Perspektive  
Flächenkreislauf-  
wirtschaft  
3 Bände ab 11/06  
(german)**

[www.flaeche-im-kreis.de](http://www.flaeche-im-kreis.de)

**Occasional paper (english):  
Circular Flow Land Use  
Management: New Strategic,  
Planning and Instrumental  
Approaches for Mobilisation of  
Brownfields**

**free download under  
[www.flaeche-im-kreis.de](http://www.flaeche-im-kreis.de)**

**Homepage:**

[www.flaeche-im-kreis.de](http://www.flaeche-im-kreis.de)

**Please consider cross-links to the  
REFINA research programme:  
[www.refina-info.de](http://www.refina-info.de)**



# Thank you very much for your attention!

2010 ANNUAL REPORT • 88/89

**POLLUTED SOILS AND WASTE**

**15.6 M€**

**Polluted soils and waste**  
11% of total BRCM turnover in 2010

**THREE QUESTIONS TO Hervé Gaboriau**  
Head of the Natural Environment and Innovative Process Department

**WHAT IS IMPLIED BY THE CIRCULAR ECONOMIC MODEL, A TERM DERIVED FROM THE CONCEPT OF NATURAL CYCLES?**

A circular economy is very different to the standard linear model, which exhausts natural resources and accumulates waste. This issue is so important that under the "New Deal for the Future" programme, the ADEME has been given responsibility for a "circular economy" project that encompasses aspects from eco-design to waste collection, including waste sorting, recycling, re-use and depollution of sites and greenhouses.

**HOW DO YOU APPLY THIS CONCEPT TO THE ISSUE OF WASTE AND RAW MATERIALS?**

We do not only use resources getting scarce, they are also unevenly distributed. Recycled materials will have to supplement primary resources to reduce our reliance on external sourcing (of strategic metals for example). This is why we are conducting research on waste recycling and re-use (slag from steel manufacturing, limestone powder, etc.). We are also developing tools to assess value chains (flows, stocks, environmental impacts, etc.).

**AND WHAT ABOUT CONTAMINATED SITES?**

As for remediation sites, infrastructure and industrial development is changing some past "hotspots" of soils every day. Yet the soil itself has to be considered a resource. The BRCM is working on the redevelopment of ex-mining brownfield sites and degraded lands, by developing "Biosol" support tools based on "Circular" management of wastewaters and designing soil treatment techniques.

www.brcm.fr