

**Cooperation of
Federal Government, *Länder*, Local Authorities & Stakeholders
in the
German R&D Program on Sustainable Land Management**

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Meeting the Future: A Research Agenda for Sustainability
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A Towards more sustainability

- National Strategy for Sustainable Development (NSSD, 2002)
- Framework Program “Research for Sustainability” (2004)
- R&D Program on Sustainable Land Management (2004)



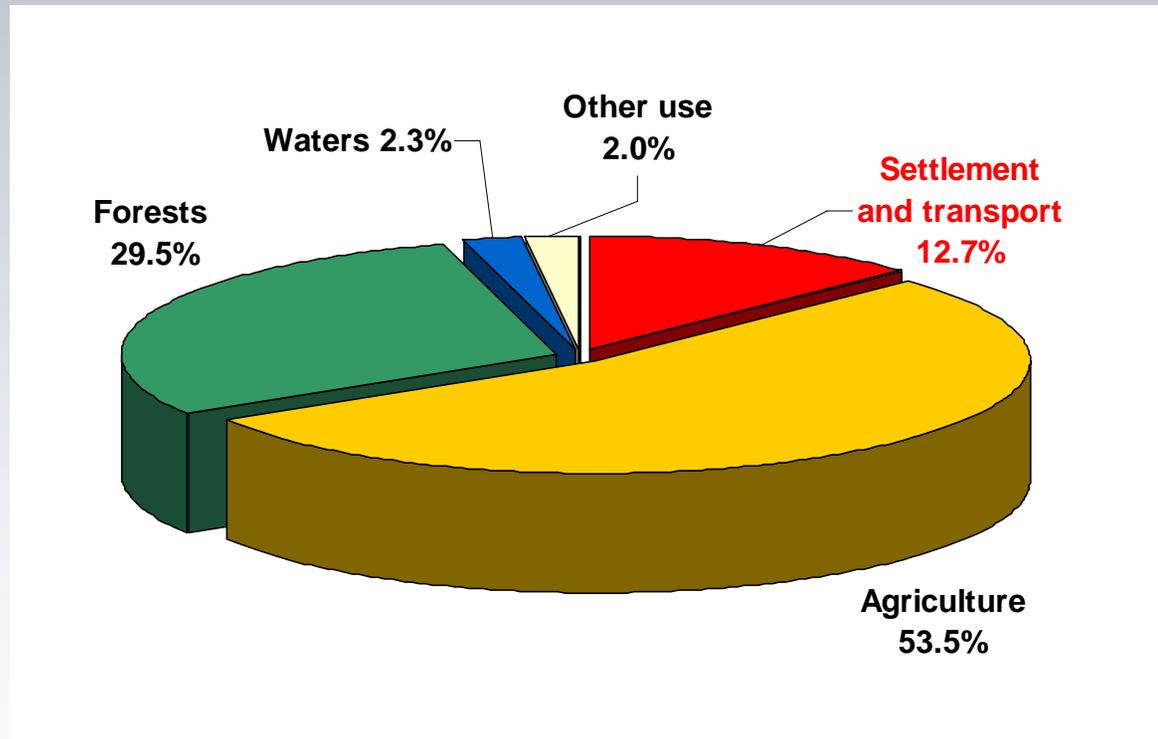
Important goal of NSSD:

Reduction of greenfield “consumption” for settlement and transport-related development

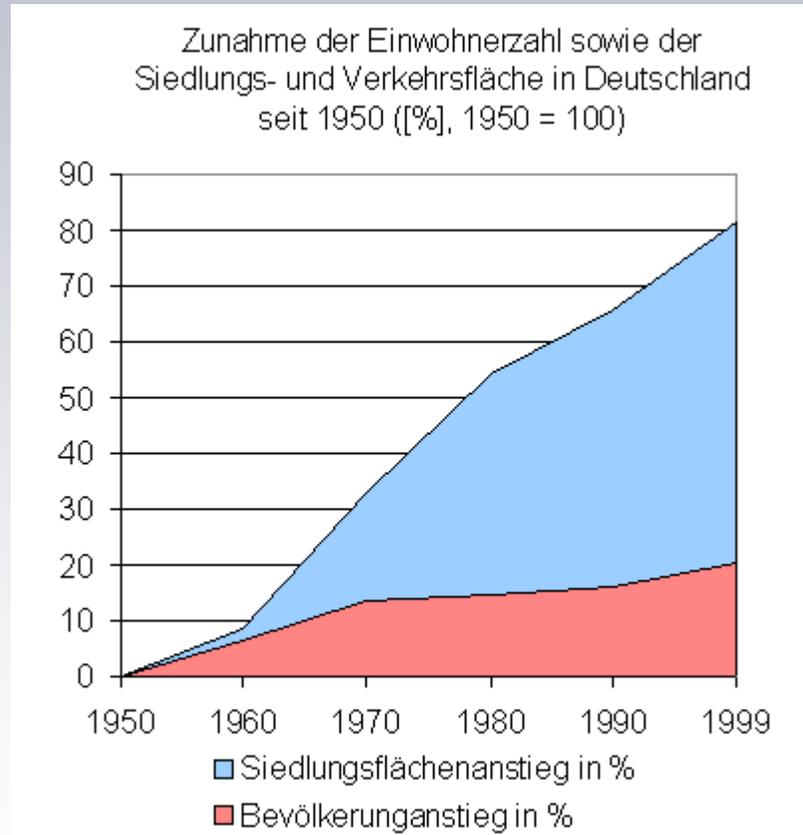
from	130 ha/day	in 2000
to	30 ha/day	in 2020



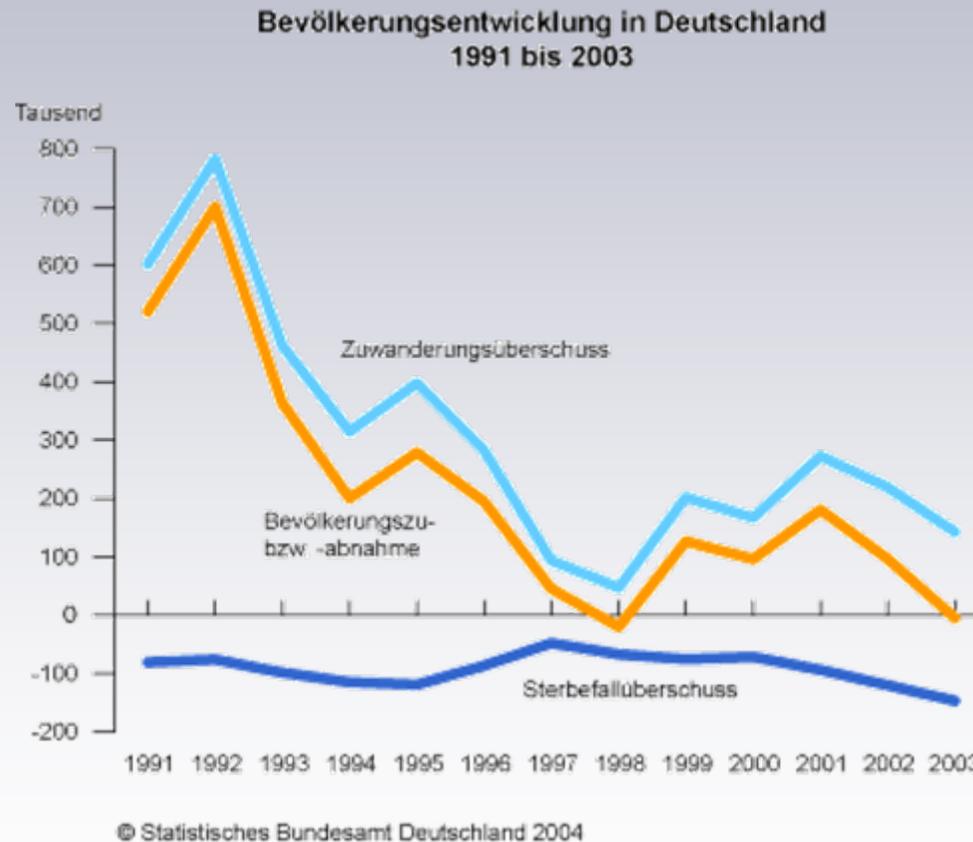
Land use in Germany



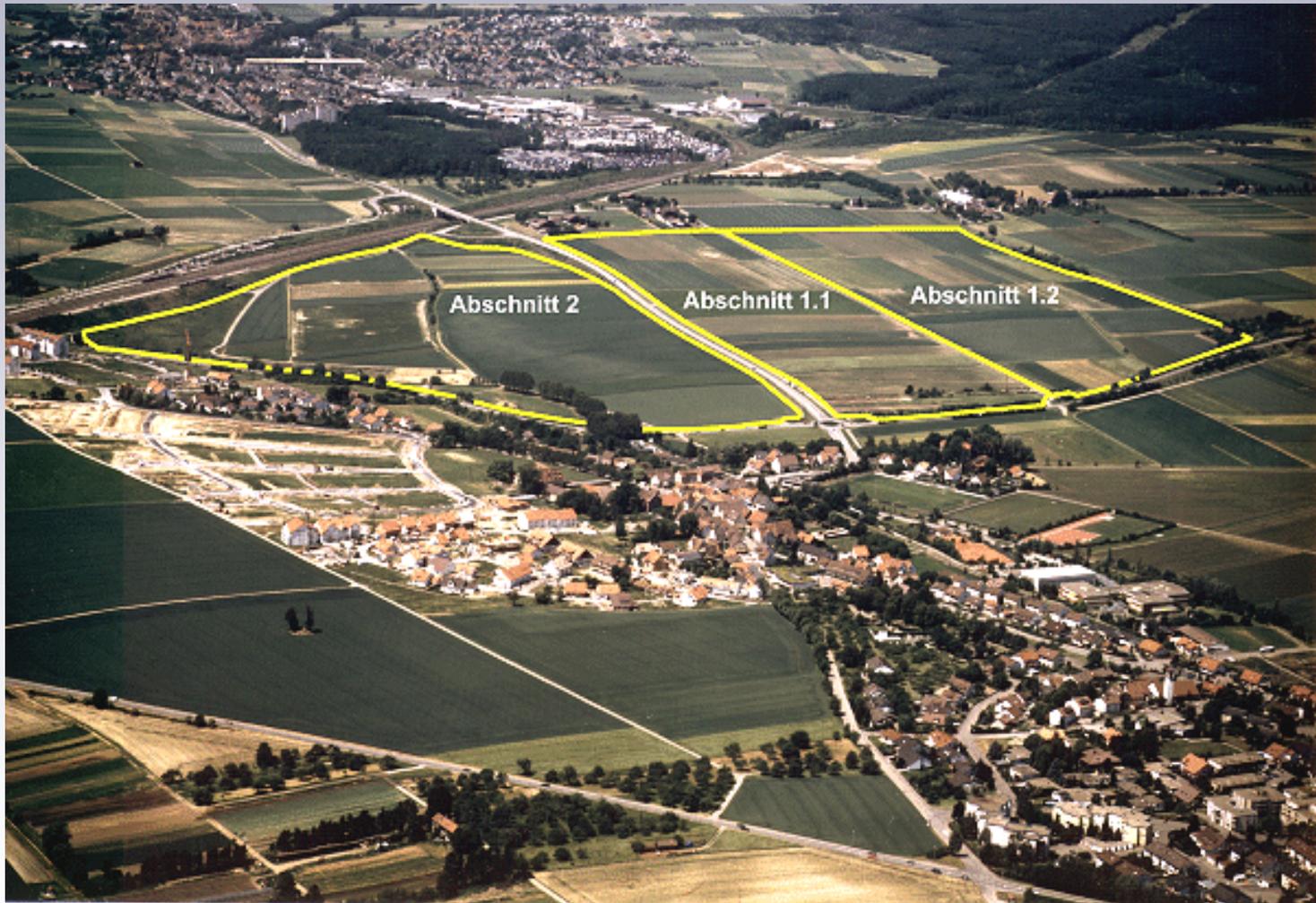
Growth of population versus growth of land use for housing, business and transportation (1950 – 1999)



Decreasing population growth in Germany



1. Research for Sustainability



Degree of fragmentation in Germany



2. The „REFINA“ R+D programm



Reuse of brownfields in a typical german city



Growth of brownfield areas in Germany

1983	28.000
1990	80.000
1995	150.000
2000	240.000
2005	340.000

ca. 1 000.000 ha brownfields
with ca. 200.000 ha in urban areas

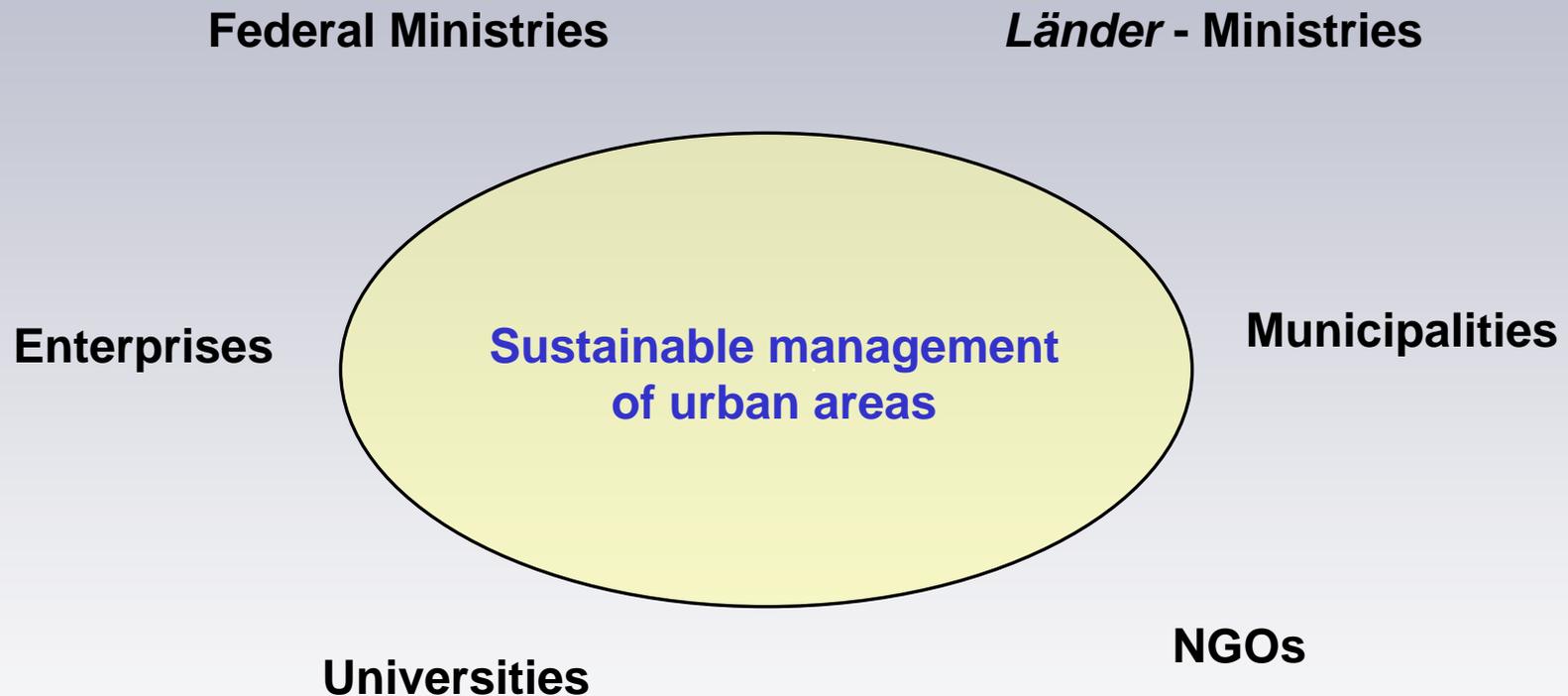
REFINA

R&D Program for the Reduction of Greenfield Development and for Promoting Sustainable Land Management

- BMBF funding program
- funding volume €20 million
- 2004 - 2008
- Integration of Federal Government, *Länder*, and local authorities and stakeholders



2. The „REFINA“ R&D program



Institutions involved in REFINA

- Federal Ministry of Education and Research (**BMBWF**)
- Federal Ministry of Transport, Building and Housing (**BMVBS**)
- Federal Ministry for the Environment (**BMU**)
- Federal Ministry of Economics and Labor (**BMWSG**)
- Federal Ministry of Defence (**BMVg**)
- *Länder* Ministries for the Environment
- *Länder* Ministries of Economics
- *Länder* Ministries of Building and Housing
- German Federal Foundation for the Environment (**DBU**)



REFINA topics

- I. Development of exemplary model concepts of innovative land management for selected regions and area types
- II. Analyses, methods and evaluation tools for a sustainable land management and land recycling
- III. Dissemination of knowledge by developing new information and communication structures.



2. The „REFINA“ R&D program

preparation of calls

consultations with federal and *Länder* ministries, authorities, associations etc.

expert workshops

definition of specific targets, content and scope of the call

characteristics of a typical call

specific criteria for proposals stated in the text of the call

deadlines for submission of proposals

50 – 400 short proposals per call (individual and collaborative projects)

two step approach: submission of short proposals, evaluation and pre-selection, submission of full proposals, evaluation and selection



evaluation of proposals

evaluators

- experts from science, public authorities, industry, industrial organizations, etc.

evaluation criteria

- contribution to specific objectives of the program/call
- innovation
- applicant's expertise
- expected benefit and use of results



REFINA status:

- **141 proposals**
- **620 project partners**
- **218 other institutions involved**

land type of proposals

brownfields	26
transport and railway areas	4
mining areas	8
industrial areas	27
agricultural areas	14
military conversion areas	6
regional development	10
shrinking cities	8
urban areas	28



3. Basic R+D activities in connection with REFINA

Specific BMBF-R&D-programs since 1990:

- 1991 – 2000 Exemplary Remediation of Contaminated Sites (€ 42 million)
- 1994 – 2004 Recultivation and Redevelopment of Brown Coal Mining Landscapes (€ 46 million)
- 2000 – 2007 Application of Reactive Barriers for Site Remediation (€ 11 million)
- 2001 – 2006 Percolation Water Prognosis (€ 11 Mio.)
- 2002 - 2007 Monitored natural attenuation (€ 21 million)

4. International cooperation

Networks

RESCUE (Regeneration of European Sites in Cities and Urban Environments)

CABERNET (Concerted Action on Brownfield and Economic Regeneration NETWORK)

EU- Projects

CORINE-Programm(CoORdination of INformation on the Environment)

MURBANDY/MOLAND (Monitoring Urban Dynamics/
Monitoring Land Use Changes)

LaCoast (Land Cover Changes in Coastal Zones)



Cooperation between BMBF and US-EPA:

- Phase I (1991 – 1996): Joint projects and Information exchange on soil remediation
- Phase II (1996 – 2001): Quality management for soil remediation
- Phase III (2002 – 2005): Business plan for brownfield revitalization projects
- Phase IV 2006 Sustainable land management, sustainability R&D





Thank you for your attention

