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Peri-urban land use relationships – Strategies and sustainability assessment tools for urban-rural linkages

Kjell Nilsson & Thomas S. Nielsen

Danish Centre for Forest, Landscape
and Planning

University of Copenhagen

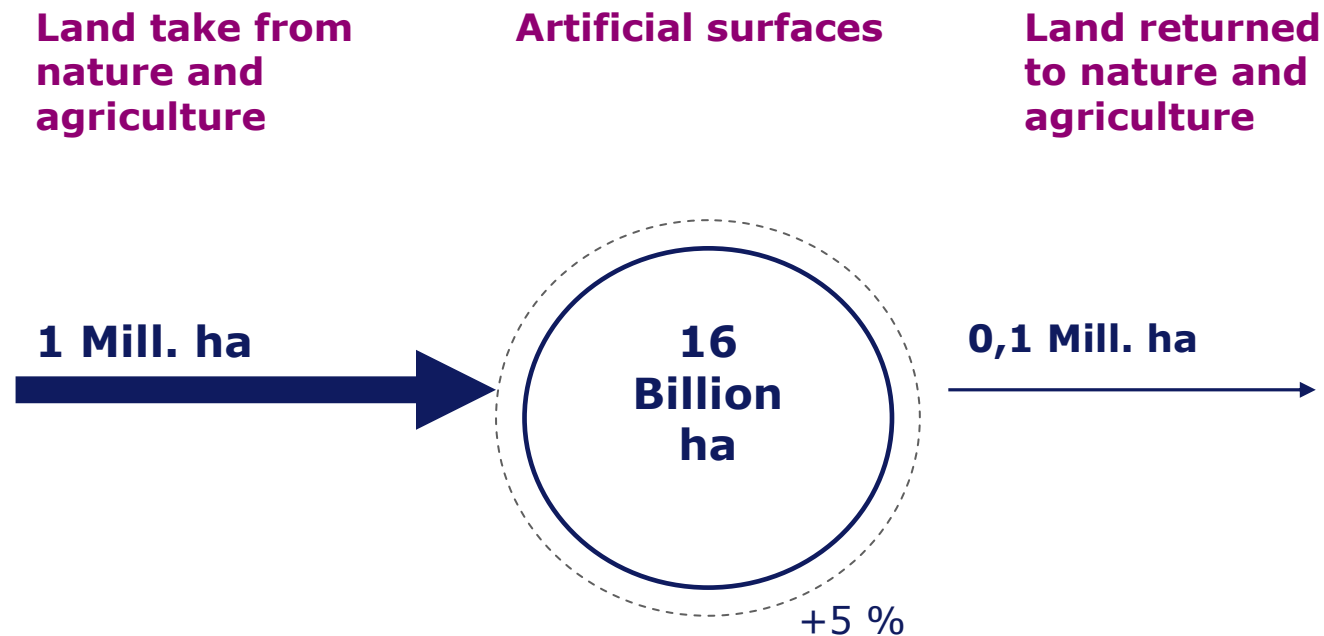


SIXTH FRAMEWORK
PROGRAMME



Urbanization: a one-way process

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Landscape



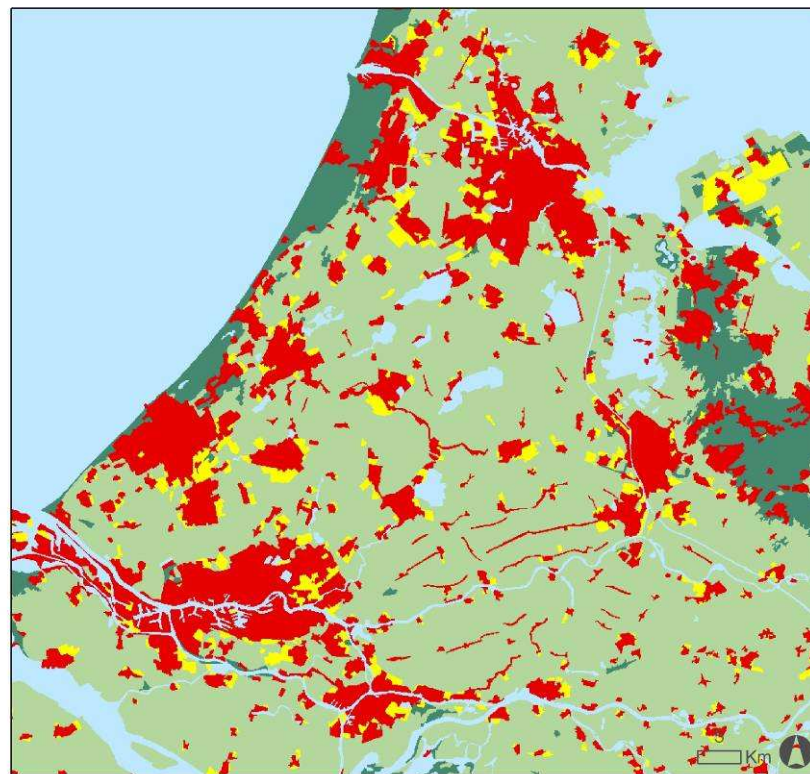
Developments in land cover in EU25 between 1990 and 2000

EEA Report No 10/2006

Urbanization on the edges of existing agglomerations

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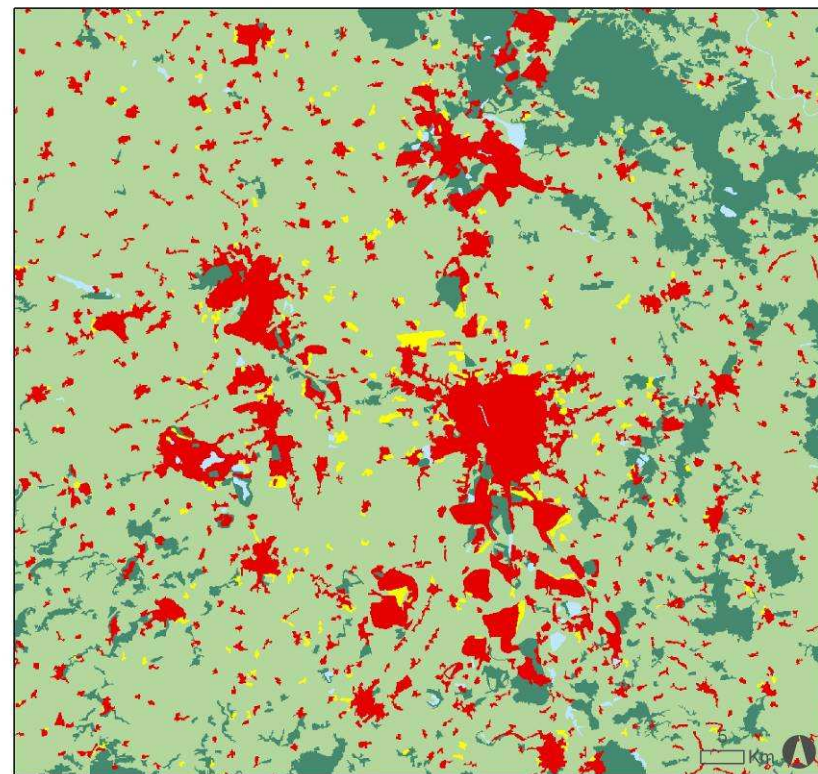
Randstad, NL



Corine land cover 1990, 2000
Urban, 1990
Agriculture, 1990
Forest and nature areas, 1990
Water surfaces, 1990
Additional urban land 1990-2000

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land use

Leipzig - Halle, DE



Corine land cover 1990, 2000
Urban, 1990
Agriculture, 1990
Forest and nature areas, 1990
Water surfaces, 1990
Additional urban land 1990-2000

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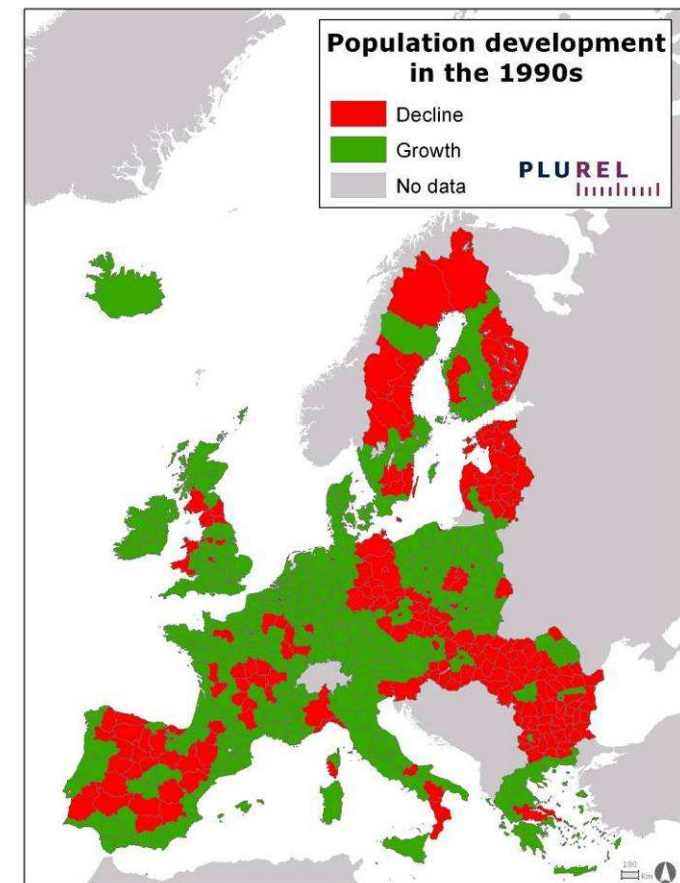
Urban Growth Issues

Impacts:

Energy, transport
land take, soil sealing
natural habitats etc.

Pre-conditions:

- Growth and Shrinkage
- Core and Periphery
- Density vs. Greenspace



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Compact city



Landscape urbanism



Sixth Framework Programme "Global Change and Ecosystems" 4th Call for Proposals

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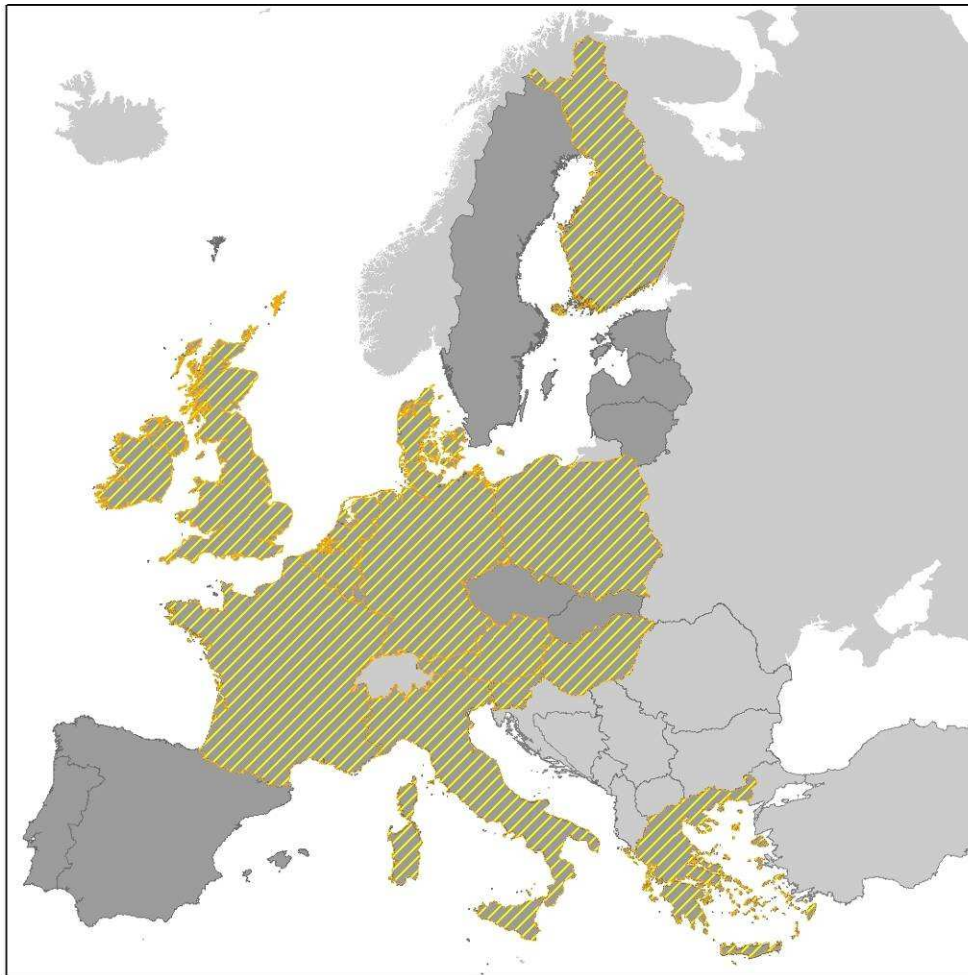
Urban, peri-urban and rural land use relationships:

- Produce tools to help in the analysis of the EU urbanising trend and identify ways to improve the process and avoid negative consequences
- Consider how urban expansion effect the request of transportation, food supply chains, environment and recreation services and the pressures that these will put on rural land
- Interaction between urban and rural land uses
- Social, economic and ecological impacts
- Complementary and consistent with the SENSOR project



Participants

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31 parties

- 13 universities
- 10 research institutes
- 8 SME's

15 countries

- EU countries
- China

7 letters of intent

The peri-urban zone

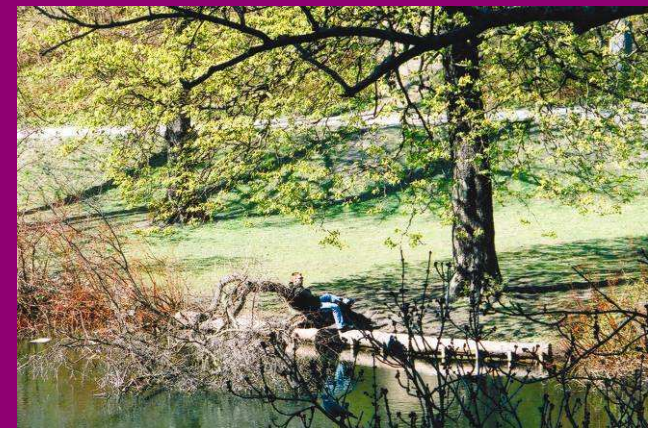
- The peri-urban zone is a transition zone where rural-urban linkages are particularly intense
- Urban life has spread out of the city. The morphological delineation of the city (the built up area) no longer reflects the reality of human interactions
- Rural and urban features co-exist in the peri-urban zone. This mix of urbanity and rurality must be considered when dealing with the environmental impacts of urbanisation and urban growth across Europe



Rural-Urban Region (RUR)

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- Functional Urban Region +
- Recreational use
- Food supply
- Nature reserve functions
- Ecological services



| | | | | | | | | |

**PLUREL aims to develop new
tools for sustainable rural-
urban land use relationships**

Photo by Vincent Follard

Specified objectives

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- Models and strategies to enhance the understanding and handling of relationships between rural, peri-urban and urban land uses
- Study and model the demands and competition for resources in Rural-Urban regions
- Land-use scenarios for Rural-Urban regions in Europe
- Generic Sustainability Impact Assessment Tool for Rural-Urban relations
- Tools for the assessment of the costs of policies related to the urbanisation process
- Enhance cooperation between policy makers, stakeholders, planners and researchers through the development of tools and dissemination



Two tier approach:

Generic Sustainability Impact Assessment:

- For Impact assessment of policies affecting Peri-urban land use relationships → SIAT-RUR

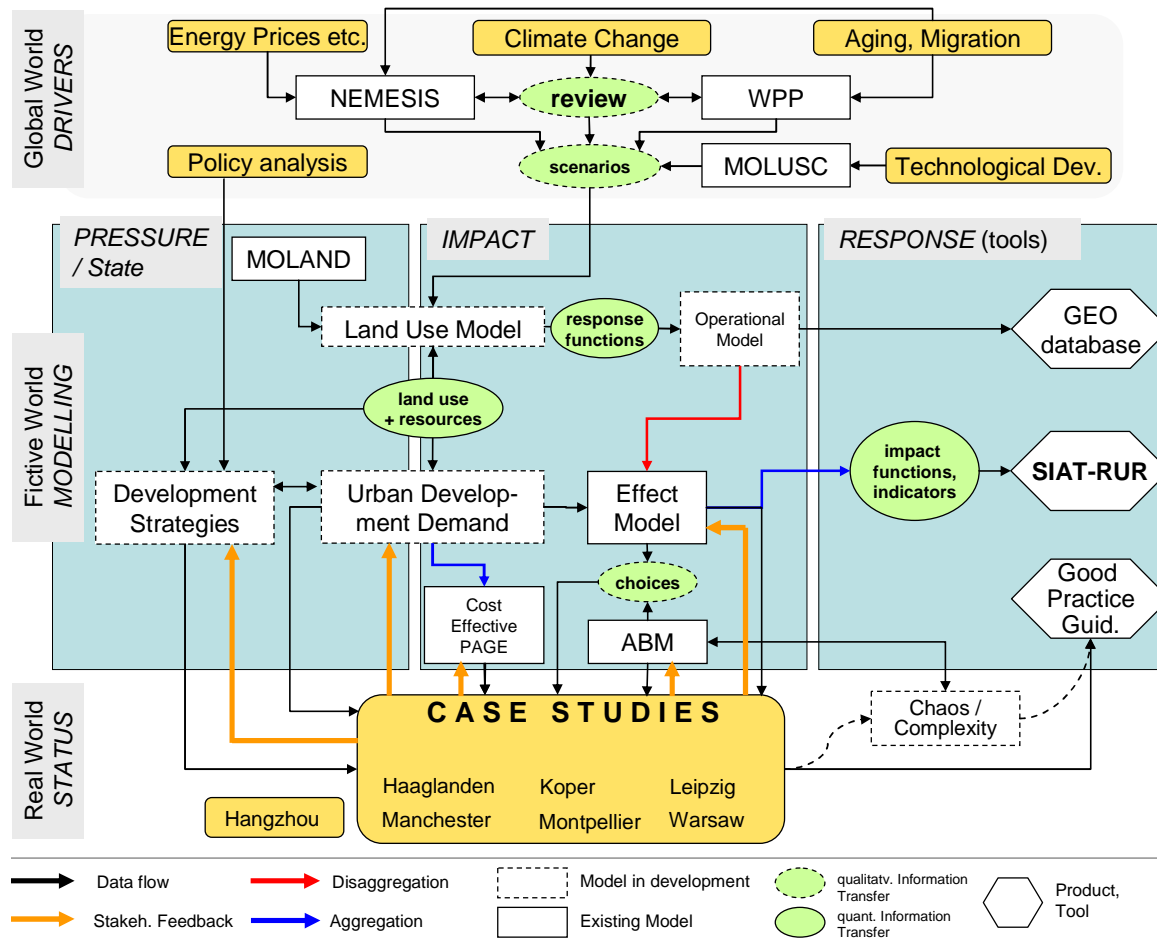
Case studies:

- For comparative scenario-analysis of policy options - in close collaboration with regional stakeholders & development of concepts and methodologies



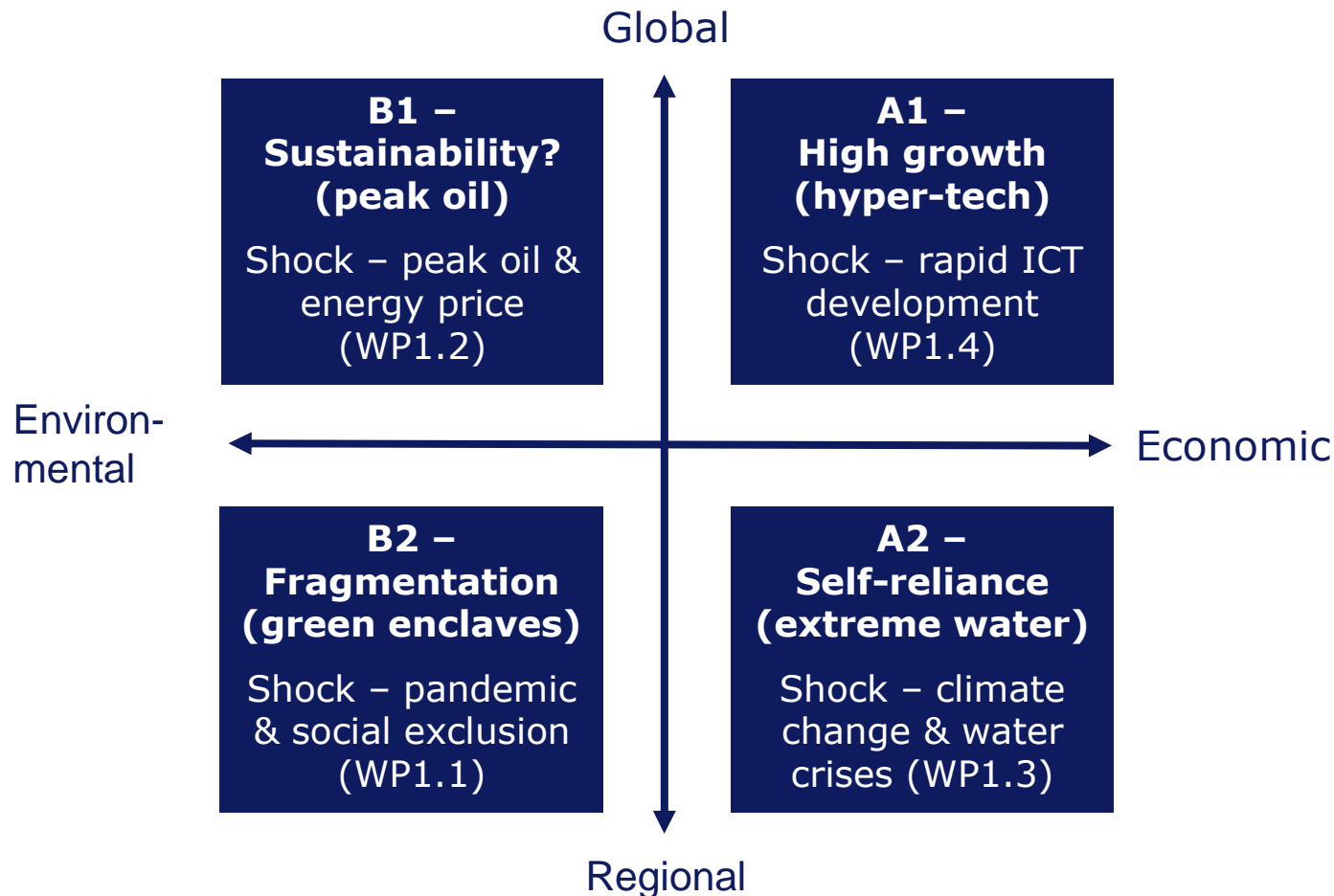
Integration of methodology

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Institute



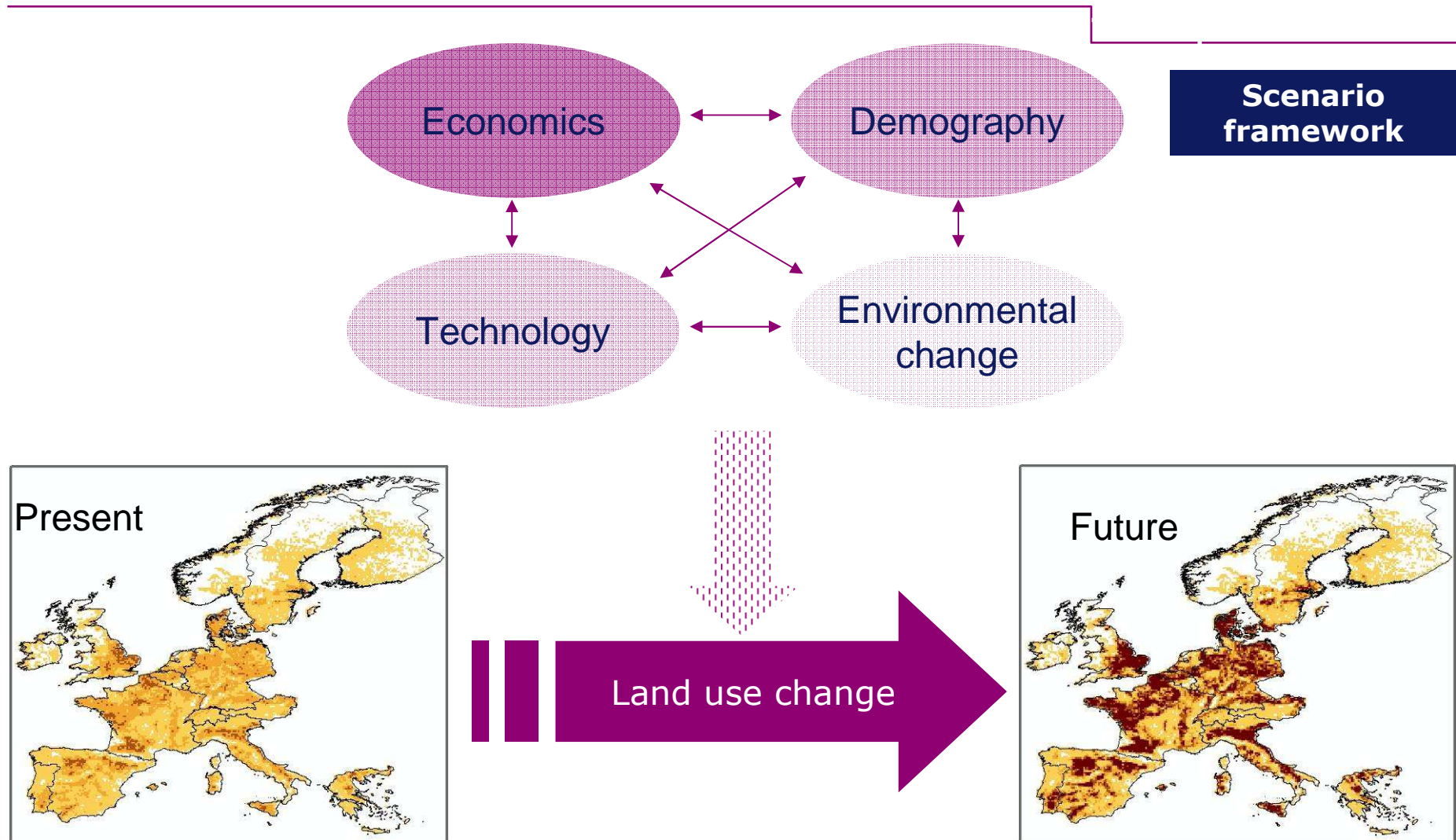
SRES variant scenarios

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European land use drivers

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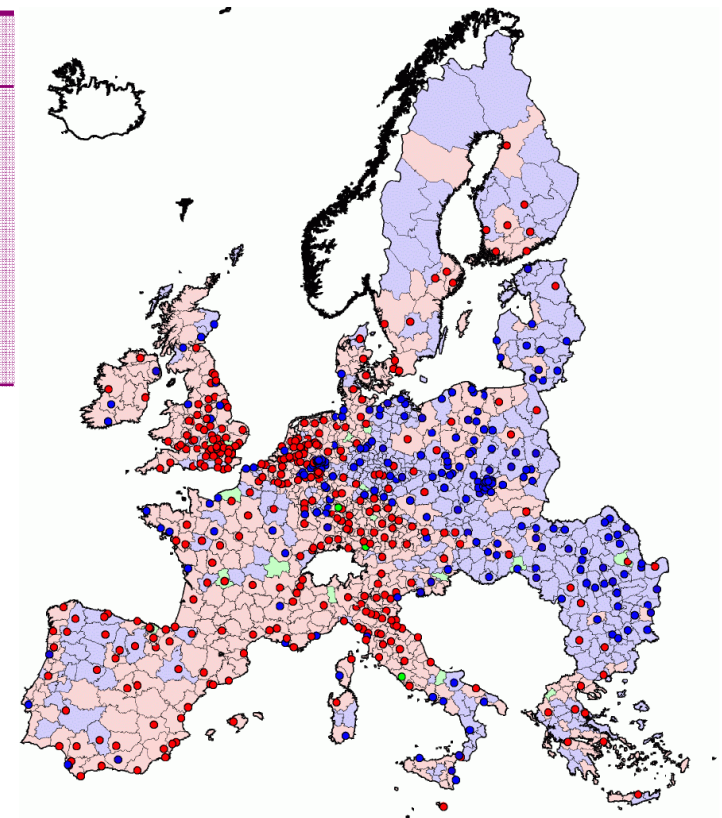


RUR typology – related to growth dynamics

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	Core city	Peri-urban area and rural hinterland
Type DD	Decline	Decline
Type DG -s	Decline	Growth - sprawl
Type DG -p	Decline	growth - polycentric
Type G D	Growth	Decline
Type G G-s	Growth	Growth - sprawl
Type GG -p	Growth	growth - polycentric

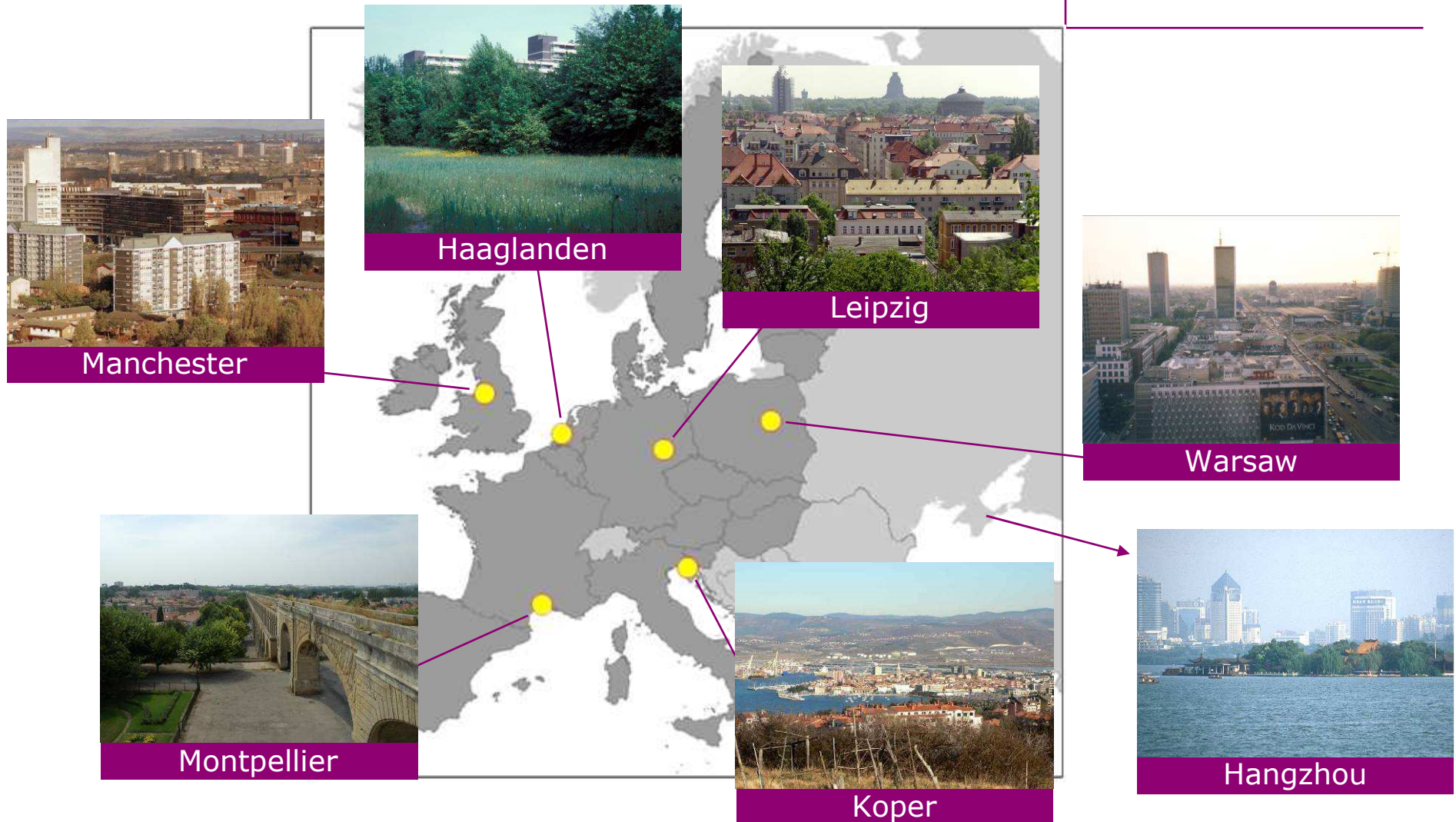
urban population
 ● decrease
 ● constant
 ● increase
 non-urban population
 decrease
 constant
 increase



Steinnocher et al. 2007

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Case study regions



Object of strategies: priority land use issues of the regions



Issue/Region	Warsaw	Koper	Montpellier	Haaglanden	Manchester	Leipzig	Hangzhou
1 land press. due housing	1 st	1 st	1 st	1 st		1 st	1 st
2 agriculture under pressure	3 rd	3 rd	2 nd	2 nd	2 nd		2 nd
3 high value nature at risk	2 nd	2 nd			1 st		
4 integration of tourism			3 rd	3 rd		3 rd	3 rd
5 traffic					3 rd	2 nd	
6 water management							

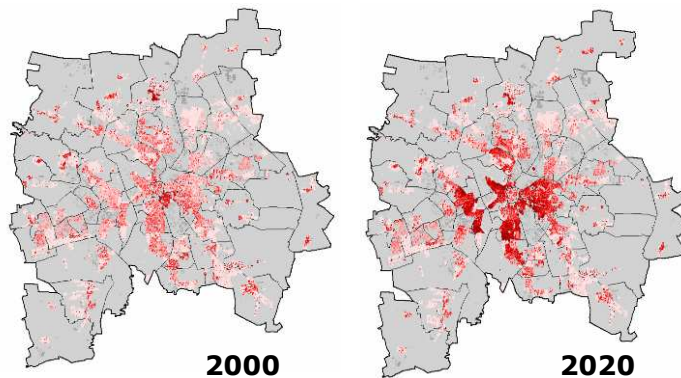
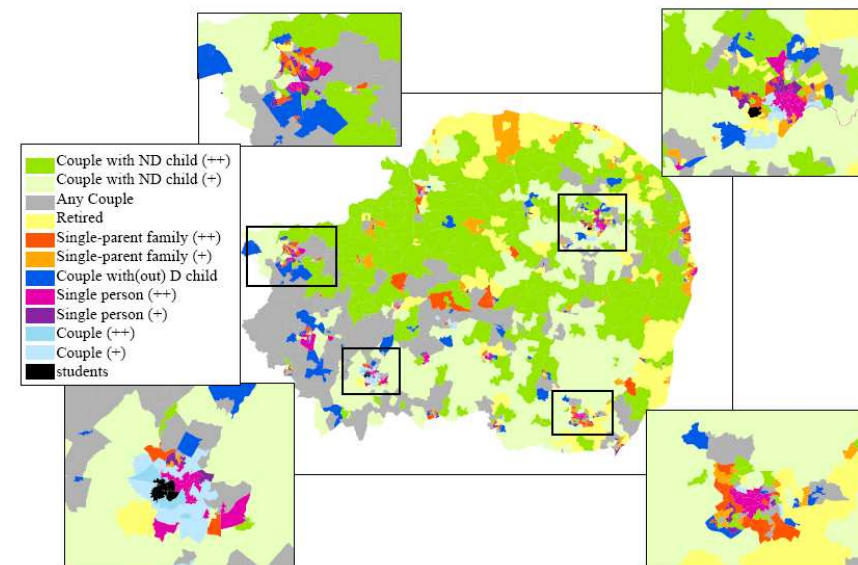
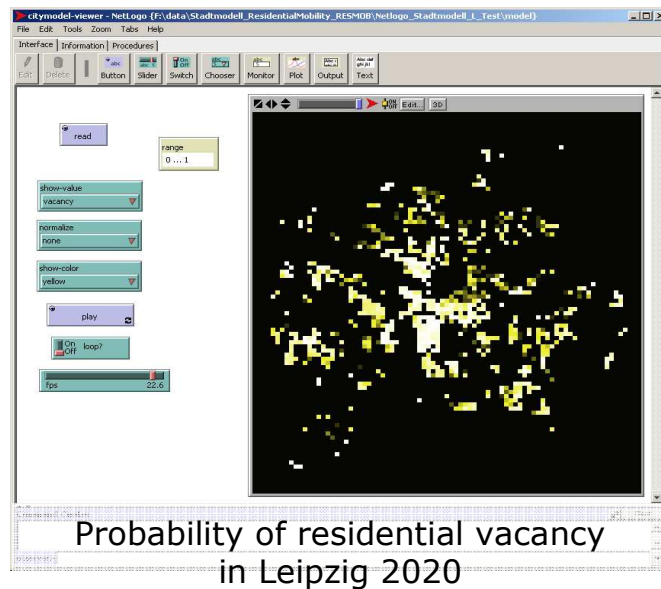
Stakeholder involvement

- Direct involvement through the Board of Stakeholders and in the case study teams
- Regional workshops, interviews and round tables with planners
- Evocative events that raise people's interest, audio-visual communications, workshops and roundtables in the case study areas
- News items will be designed for release through podcasts, newspapers and local television and radio
- General means of dissemination, such as the project website and newsletter

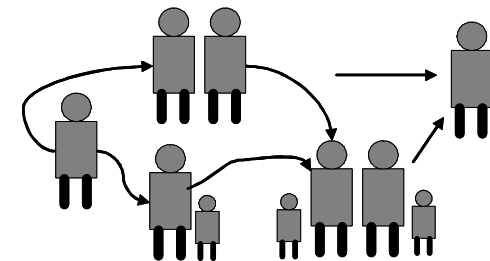


Examples

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Probability of concentration of young single households in Leipzig



PLUREL Newsletter

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Newsletter - March 2007

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Science for Sustainable Rural-urban Regions

In the light of ongoing urbanisation, policy-makers and planners are shifting their focus to rural-urban regions, linked through flows of people, information, goods and services. Science has the task to support the sustainable development of these complex, multifunctional regions.

Challenges of urbanisation
Urbanisation is arguably the most significant process of land use change in Europe. According to the European Environment Agency, more than 70% of Europe's population is now living in urban areas. In Asia, these urban areas have grown by almost 80% over the last fifty years.

Urbanisation is most visible through the spread of built-up areas, business parks and the creation of large transport networks and hubs. New urban parks, golf courses but also the conversion of farmland into residences and holiday farms in near-urban landscapes are other manifestations of urbanisation.

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Newsletter - October 2007

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Governance and planning under scrutiny, for comparison and shared learning

Under the theme «Global Change and Ecosystems» of its Sixth Framework Programme, the European Commission calls for the development of strategies and tools for sustainable urban and peri-urban regions. PLUREL aims to meet this call by developing new strategies and

innovative planning and forecasting tools. Innovation requires close cooperation between practice and research. With this in mind, PLUREL includes a research module of case studies in which seven urban regions and thirteen research institutes, universities and enterprises cooperate.

Six European regions and a Chinese reference
The urban regions of Warsaw (Poland), Montpellier (France, shown on photo), Greater Manchester (United Kingdom), Leipzig (Germany), Kyoto (Shikoku), Hangzhou (China) and Hauglander (the Netherlands) represent an amalgam

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Newsletter - March 2008

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Scenarios – crystal balls for the urban fringe

Scenarios as «stories of the future» can help in dealing with rapid and unpredictable change in urbanising societies. The PLUREL project applies four different scenario storylines to explore the possible futures for Europe's urban and peri-urban areas.

Managing change and uncertainty
In 2007 the urban dwellers of the world increase the majority of the population. For the first time in history, but there are new questions about the nature of cities, in the face of increasingly rapid and unpredictable change:
• Are traditional cities spreading further

and wider into peri-urban areas?
• Are large parts of the countryside being transformed into metropolitan extensions, by global communications and economic restructuring?
• In the Europe of 2050, will the peri-urban be an area of wealth and diversity, or decline and fragmentation?

Project website

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land use

PLUREL
land use

- Project
- Consortium
- Organisation
- Info for policy makers
- Case study regions
- News
- Products
- Contacts
- Links
- Vacancies



Welcome

The PLUREL project: **Peri-urban Land Use Relationships - Strategies and Sustainability Assessment Tools for Urban-Rural Linkages** is a European integrated research project within the European Commissions sixth framework programme. The project began on the first of January 2007 and is expected to end the 31st of December 2010.

The webpages consists of a public section and an internal section that will only be available to the participants in the project. The project newsletter, reports and other news items will be made available on the public site as the project evolves. The internal section will serve the practical function of exchange between project partners.

*This web-page is edited by the University of Copenhagen [contact].
The photo on the front page is by Prof. Marina Pintar and display a view towards the city of Koper in Slovenia, one of PLURELS case study regions.*

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LEIPZIG CHARTER
on Sustainable
European Cities,
May 2007



International conference:
Impact
Assessment
of Land use
changes,
6th-9th April 2008,
Berlin



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