



Exploratory landscape scenarios in definition landscape quality objectives

Participatory methods in landscape character assessment

ELC - Landscape Quality Objectives

specific landscape



**...formulation by the
competent public
authorities...**



**...of the aspirations of the
public with regard to the
landscape features of their
surroundings**

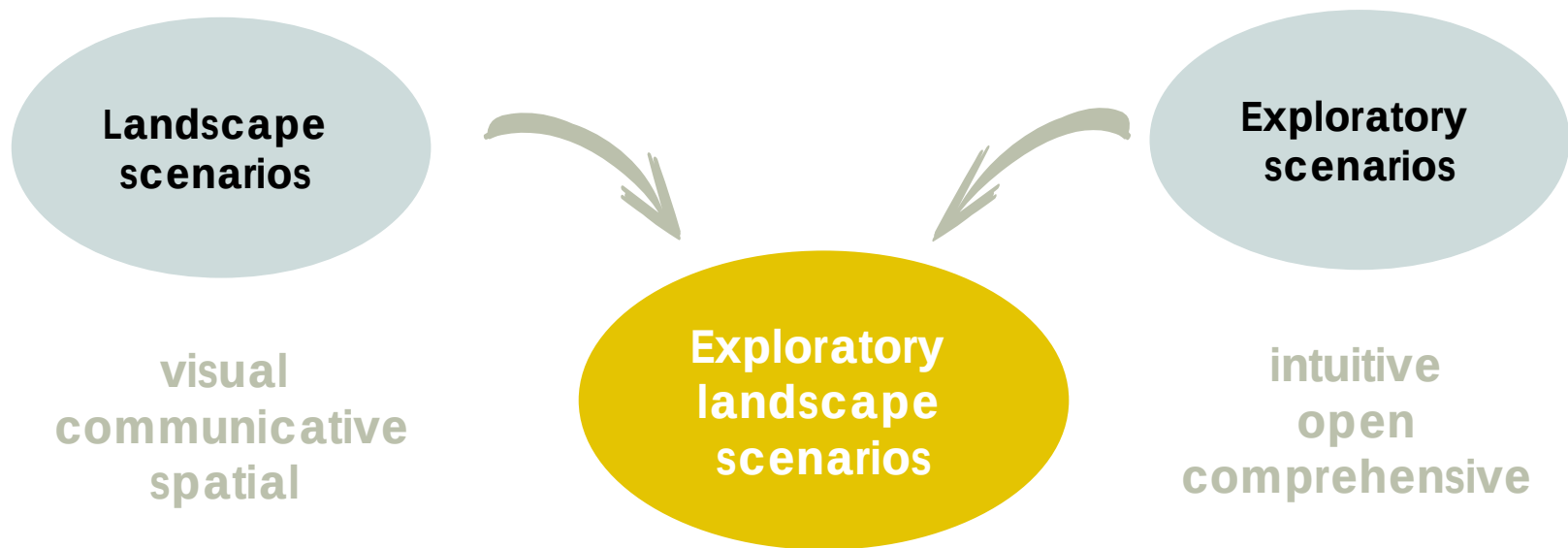


**Definition of
strategies**

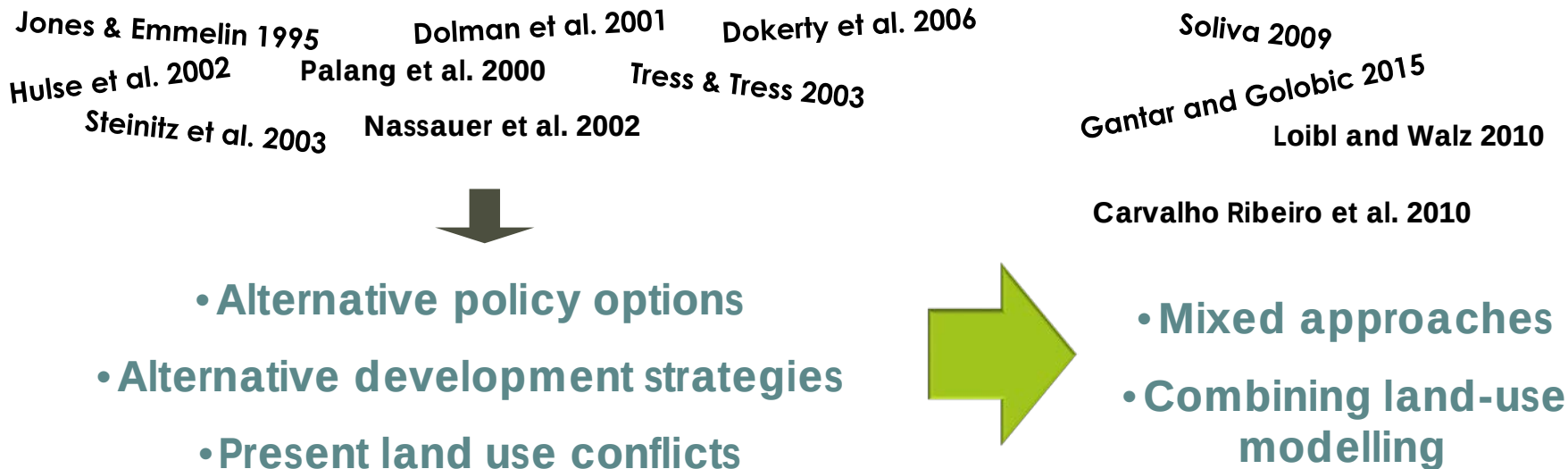


**Communication
with
local public**

Towards exploratory landscape scenarios

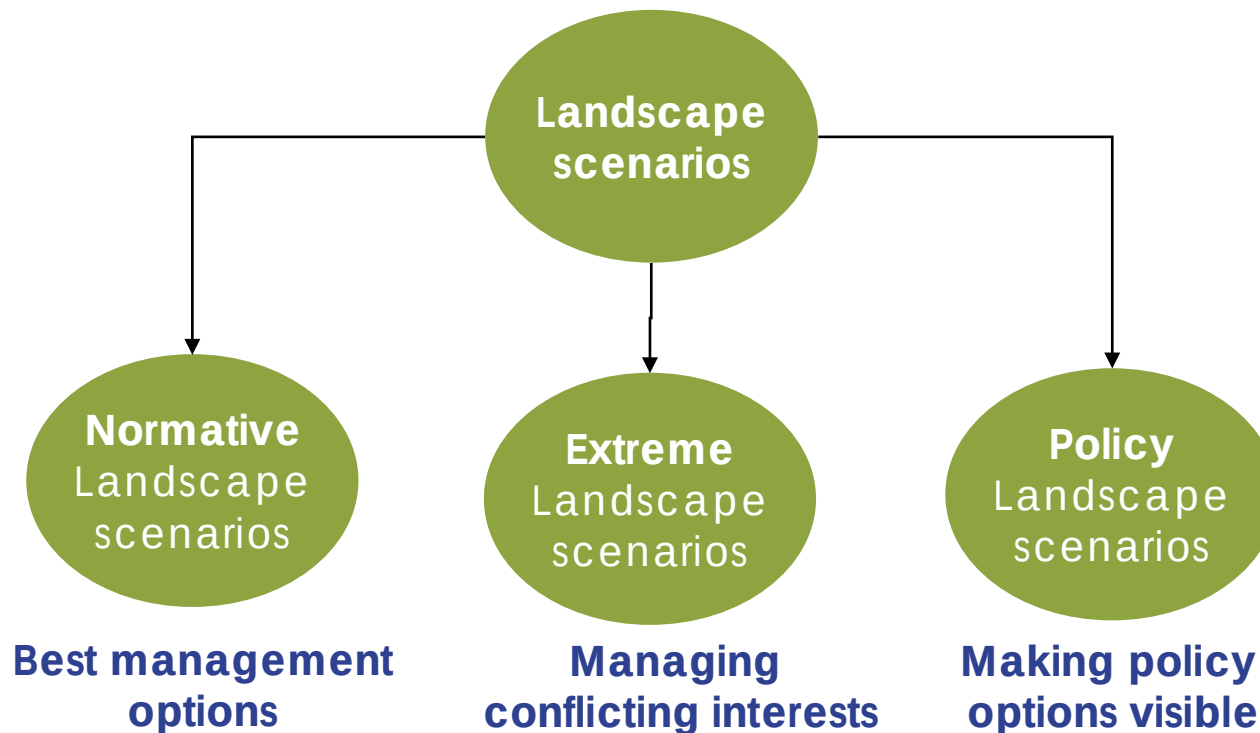


Landscape scenarios



- Have focused on the visual aspects – landscape design
- Have focused on the quality of the simulation (view)
- It has been much about preference

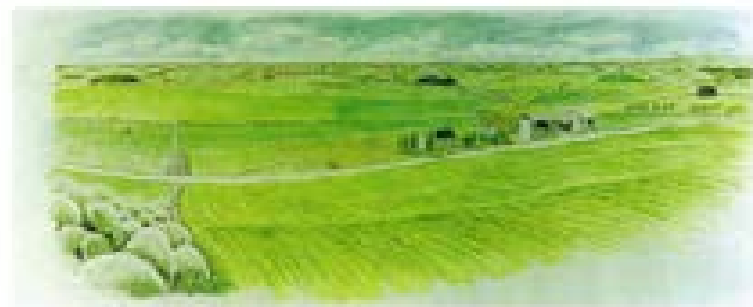
Landscape scenario types



What should happen? What will happen?



Cenário 1



Cenário 2



Cenário 3



Cenário 4

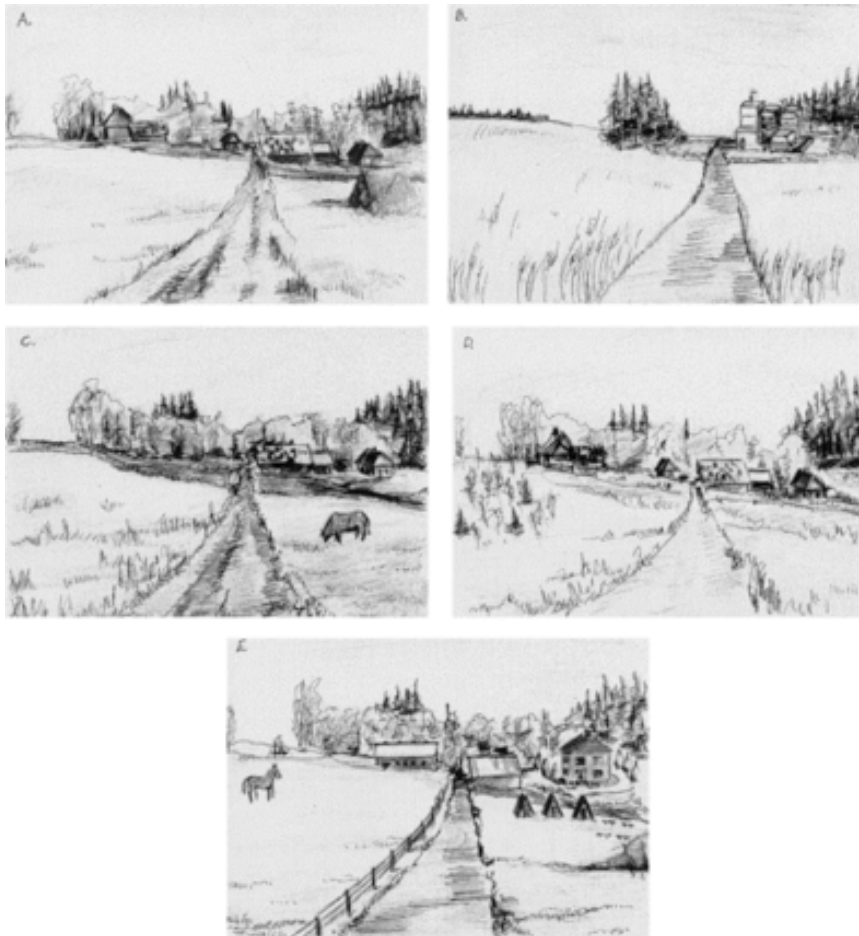


Cenário 5



Cenário 6

Jones and Emmelin 2003



"Competitive Saaremaa" *Intensive development alters landscape significantly, specific character of landscapes is lost*

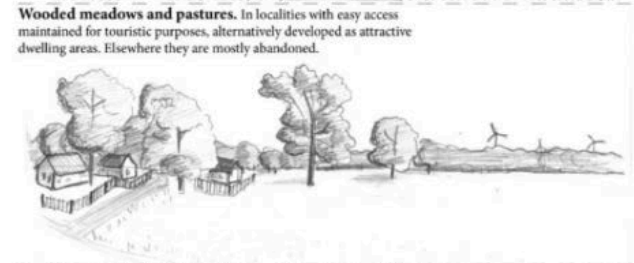
Open coastal landscapes. Coastal landscapes in/near regional centres are intensively developed; landscapes with heritage value are intensively used for mass tourism.



Former Soviet collective farm centres. Actively used for industries near regional economic nuclei; peripherally mostly abandoned. Accessory agricultural lands are used for large-scale agro-industries or abandoned accordingly.



Wooded meadows and pastures. In localities with easy access maintained for touristic purposes, alternatively developed as attractive dwelling areas. Elsewhere they are mostly abandoned.



Traditional pastoral villages. Attractive and logistically suitable localities are adapted for mass tourism. Peripheral localities are perishing.

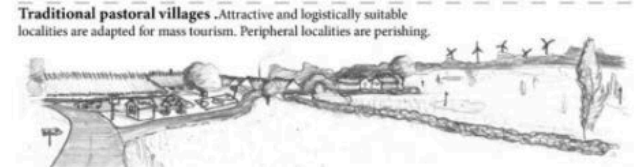


Figure 27.8 Saaremaa landscape scenario: Competitive Saaremaa.

Palang et al 2000

Külvik 2017



Plan Trend 2050



Development 2050



Conservation 2050

Hulse et al. 2002

Kravlund 2020 - Residential expansion



Kravlund 2020 - Recreation and tourism



Kravlund 2020 - Nature conservation



Kravlund 2020 - Industrial farming



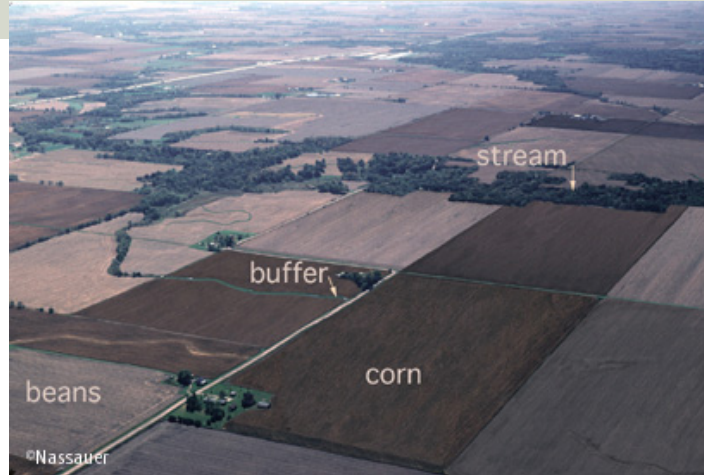
Tress and Tress 2003

Alternative future landscape scenarios

a mean to consider
agricultural policy in the
US Corn Belt

Nassauer and Cory 2000

“to make policy options visible”



Landscape Scenario I

Landcover patterns respond to high world demand for Corn Belt grain crops with high use of **production** inputs.



Landscape Scenario II

Landcover patterns and agricultural enterprises have changed to the degree necessary for farmers to efficiently achieve acceptable **water quality**.



Landscape Scenario III

Landcover patterns have changed to increase **habitat** with innovative, profitable agricultural production methods

Driving force of landscape change

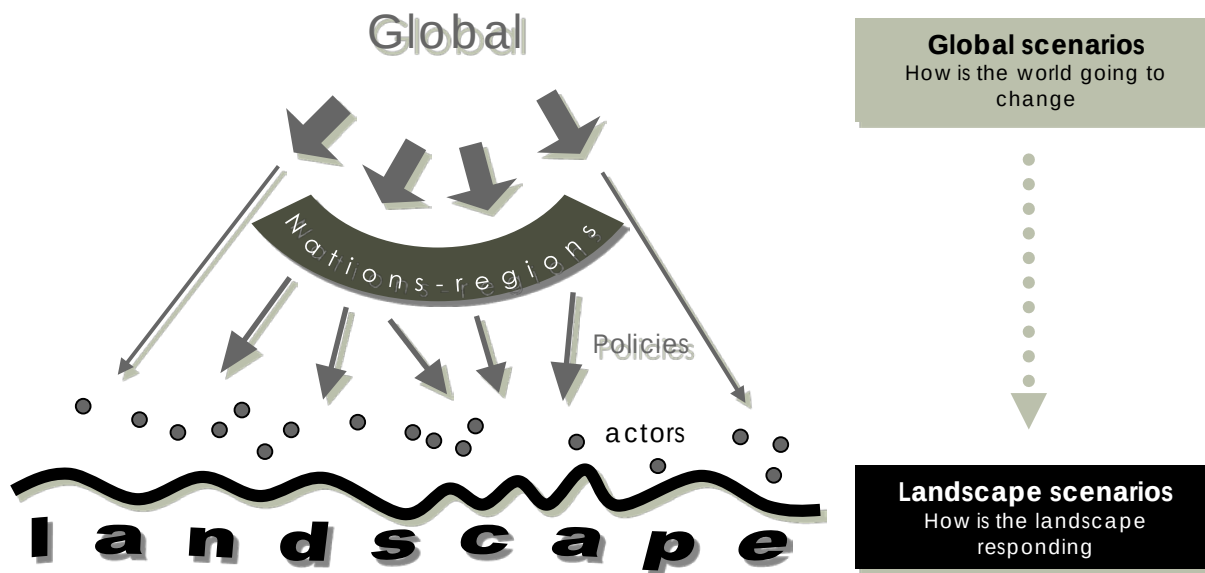


Questions arising...

Why does it happen?

And how?

Scale of driving forces



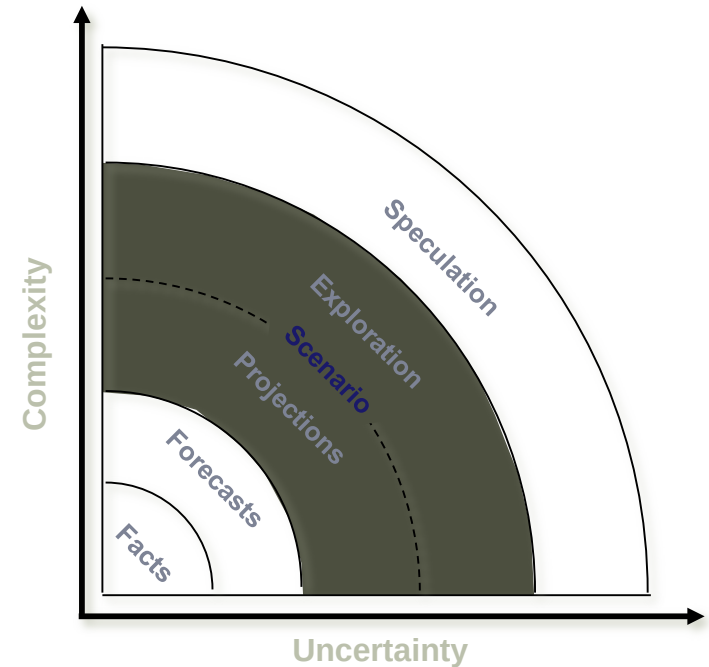
ESPAÇO DE OPORTUNIDADE DOS CENÁRIOS

“(…) a tool for ordering one’s perceptions about alternative future environments.”

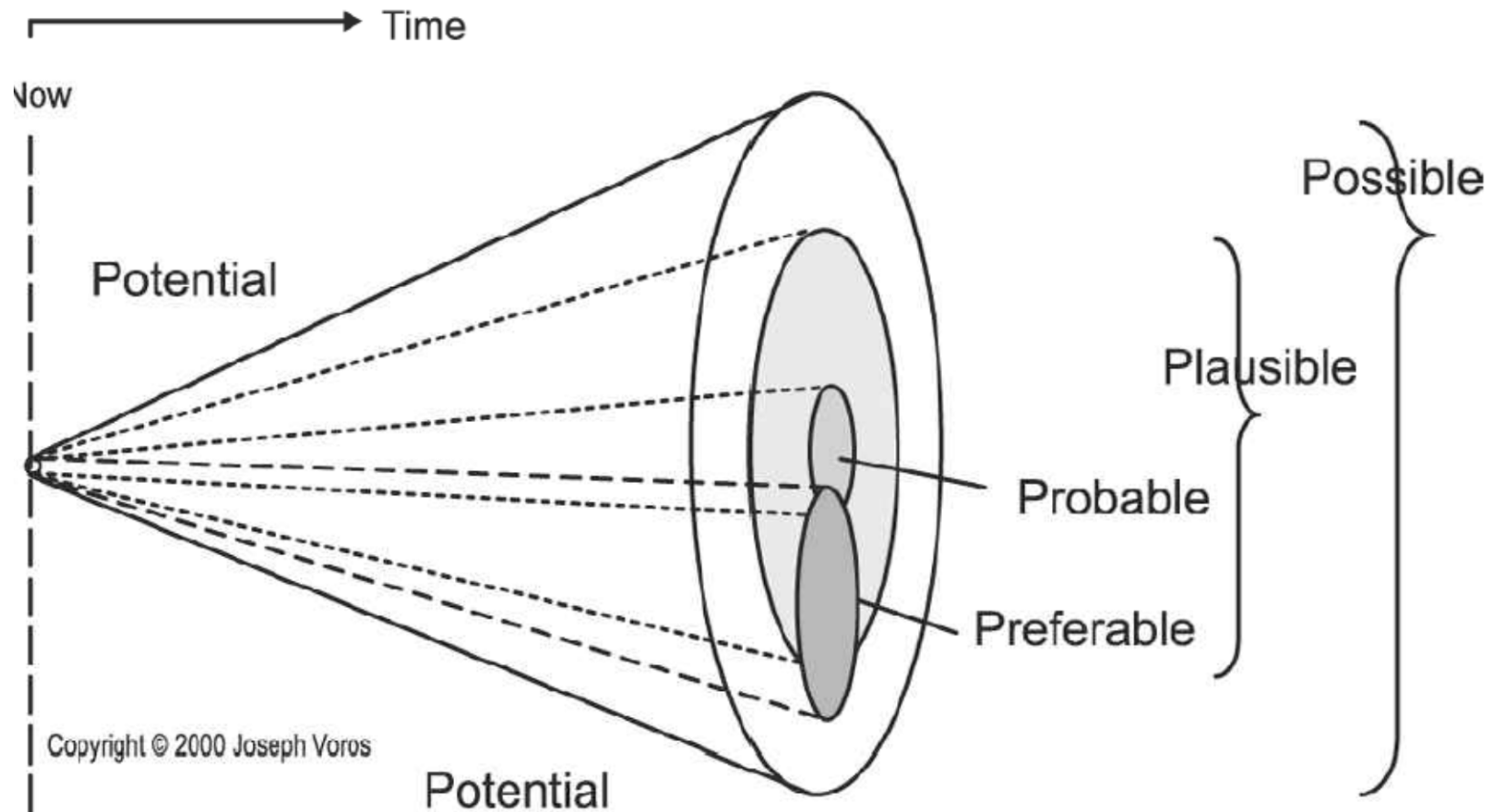
Schwartz 1996



“consensus-building”
Partilha de Visão
Formação de Opinião



Zurek e Henrichs 2007



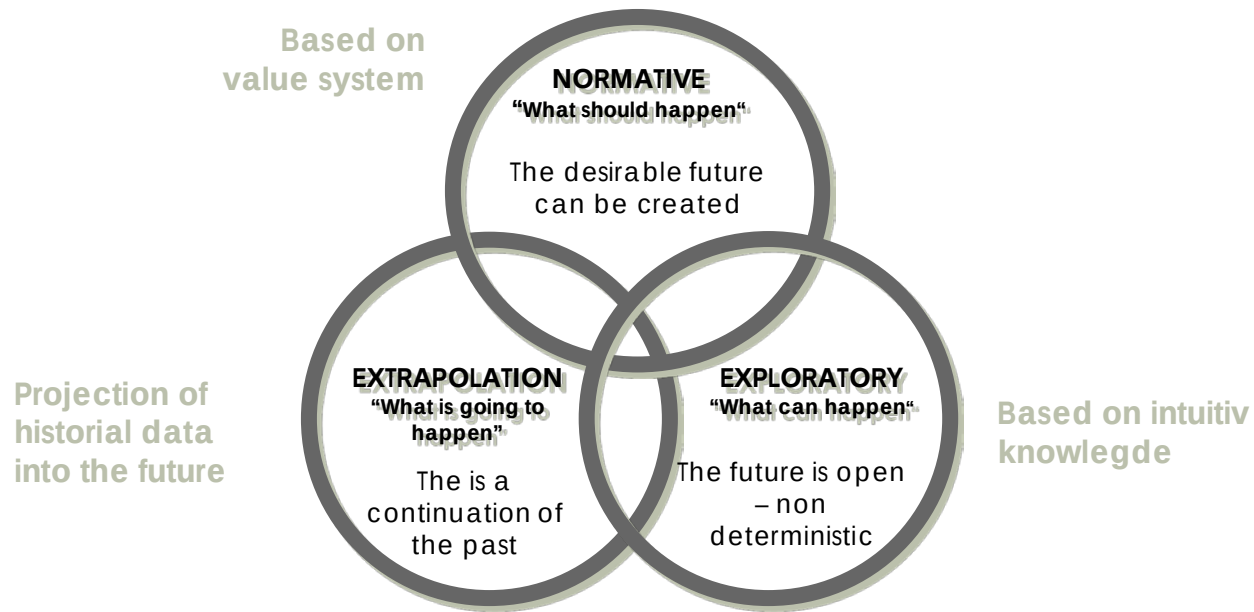


Figura 43.2 Abordagens em estudos que exploram o futuro (com base em Wright e Spers 2006).

Exploratory scenarios

Scenario thinking

Kahn & Wiener 1967
Shell 2005
MEI 2005
Alcamo 2001
van der Heijden 1996
IPCC 2005
Schwarz 1996



- “Framework for speculation”
about the future
- Identification signs - “faites
porteurs d’avenir”

- Not necessarily visual – Story telling - Narratives
- Sometime struggling with communication with public
- Focused on the organizational context and decision-making

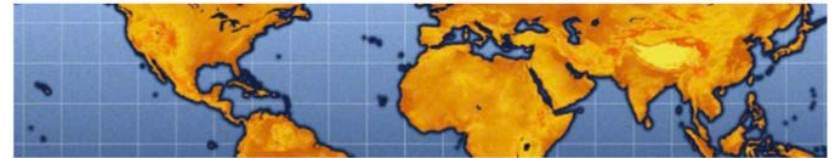
GBN Exploratory scenario approach

WHAT IF?

THE ART OF SCENARIO
THINKING FOR NONPROFITS

Diana Searce, Katherine Fulton,
and the Global Business Network community

GBN Global Business Network
a member of the Monitor Group



Plotting Your Scenarios

Jay Ogilvy and Peter Schwartz

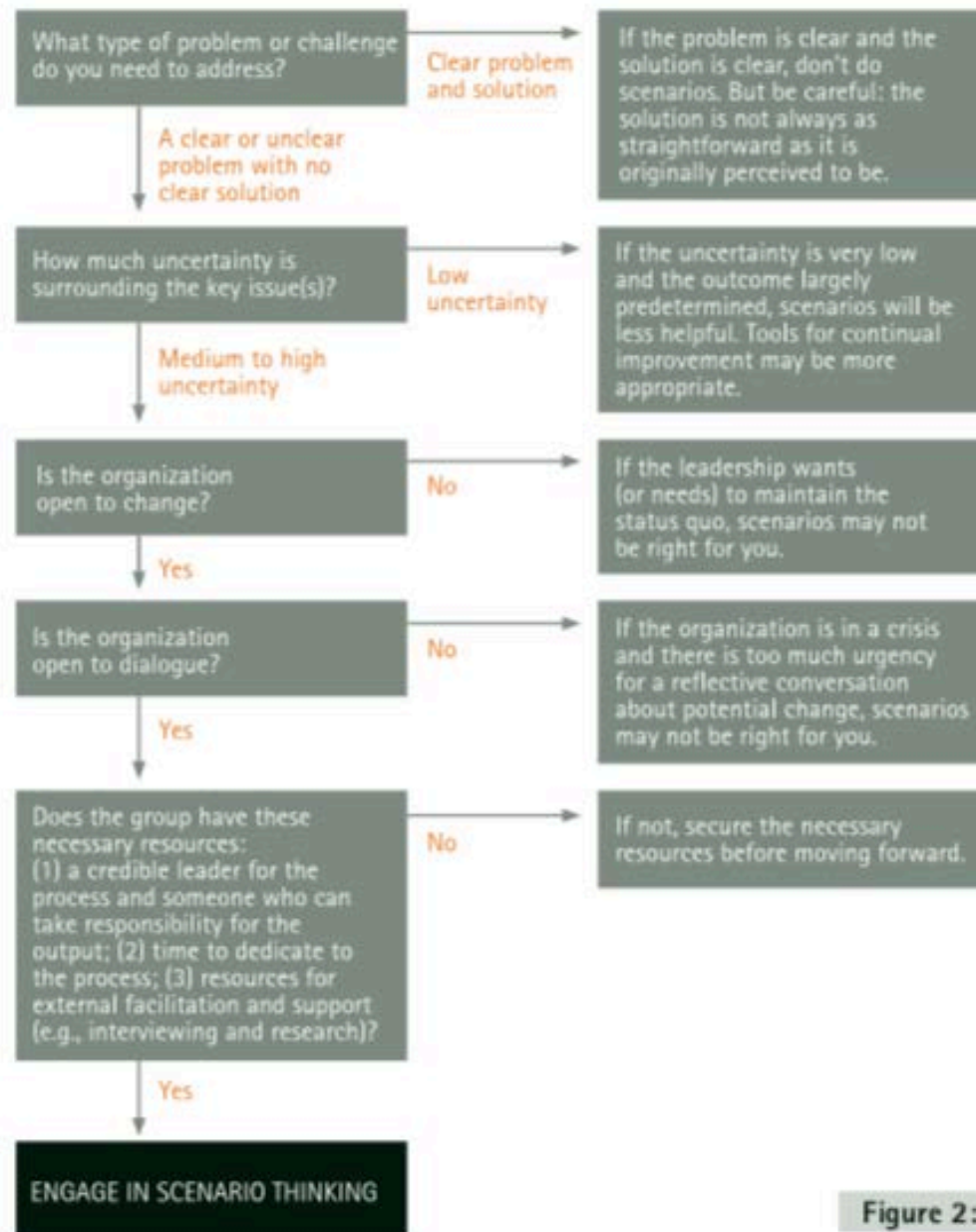
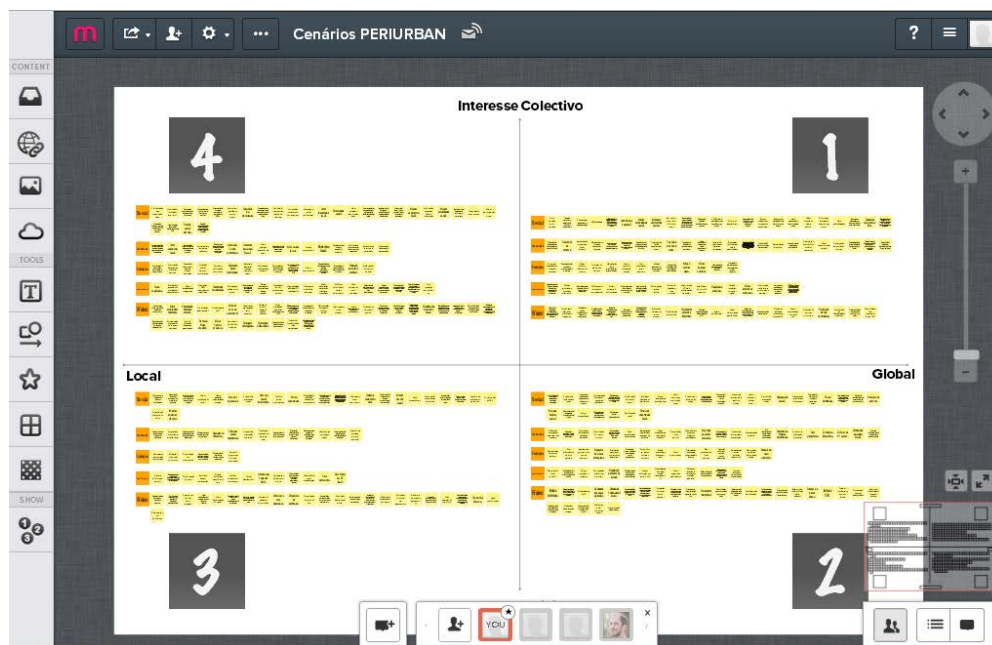


Figure 2: Decision tree





IPCC - Special Report on Emissions Scenarios

The Intergovernmental Panel on Climate Change (IPCC) Special Report on Emissions Scenarios describes new scenarios of the future, and predicts greenhouse gas emissions associated with such developments.

These scenarios are based on a thorough review of the literature, the development of narrative "storylines", and the quantification of these storylines with the help of six different integrated models from different countries.

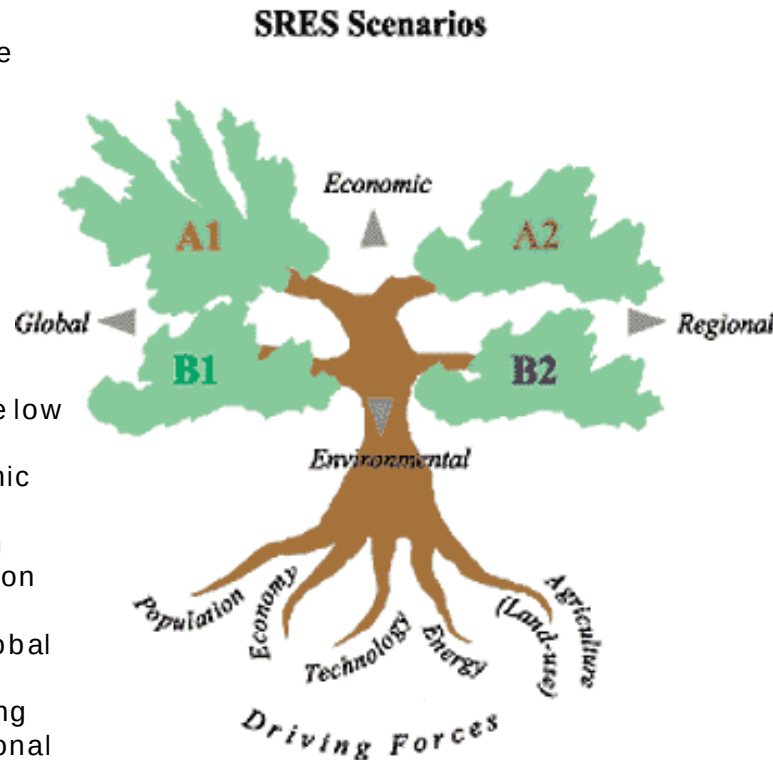
The scenarios provide the basis for future assessments of climate change and possible response strategies.

.

A1-Very rapid economic growth, low population growth and the rapid introduction of new and more efficient technologies. Major underlying themes are convergence among regions, capacity building and increased cultural and social interactions, with a substantial reduction in regional differences in per capita income

B1 -Convergent world with the same low population growth as in the A 1 scenario. Rapid changes in economic structures toward a service and information economy. Reductions in material intensity, and the introduction of clean and resource-efficient technologies. The emphasis is on global solutions to economic, social and environmental sustainability, including improved equity, but without additional climate initiatives.

A2 -Very heterogeneous world. The underlying theme is self-reliance and preservation of local identities. Fertility patterns across regions converge very slowly, which results in high population growth. Economic development is primarily regionally oriented and per capita economic growth and technological change are more fragmented and slower than in other scenarios.



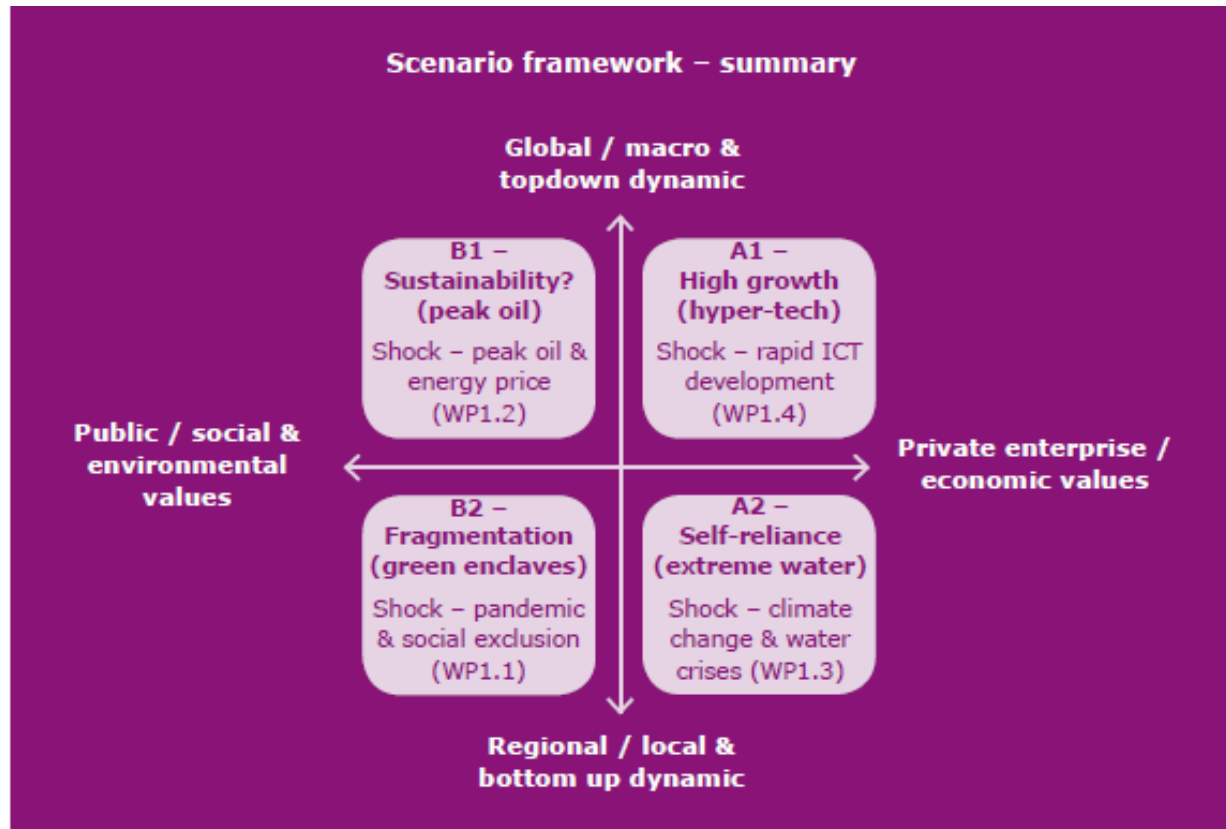
B2 - World in which the emphasis is on local solutions to economic, social and environmental sustainability. Moderate population growth. Intermediate levels of economic development. Less rapid and more diverse technological change than in the B 1 and A 1 scenarios. While the scenario is also oriented toward environmental protection and social equity, it focuses on local and regional levels.

PLUREL - Peri-urban Land Use Relationships - Strategies and Sustainability

Assessment Tools for Urban-Rural Linkages

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.

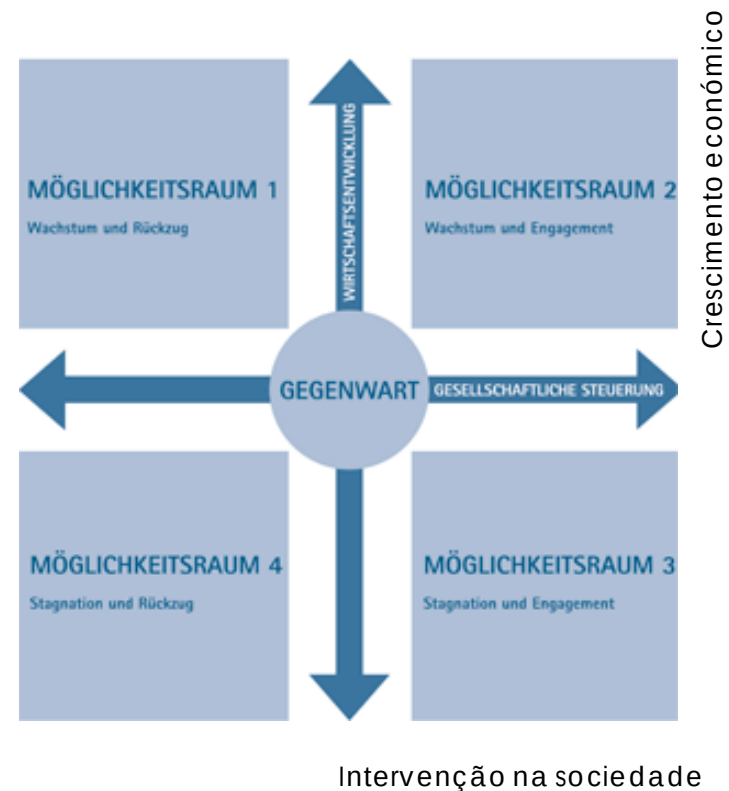


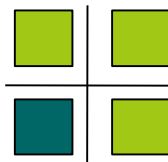
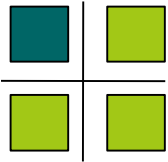


Based on van der Heijden, The art of strategic conversation, 1996

Visualization







Energieproduktionslandschaft

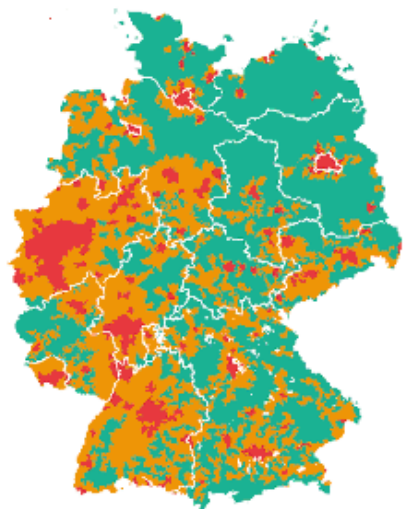


Paisagem de produção de energia

Weidelandschaft



Paisagem de pasto



Sustentabilidade

IC+L

Realização comunitária

④

- Contensão da edificação apenas nas áreas urbanas
- Autosuficiência dos municípios em termos energéticos e alimentares

Recuperação de áreas espaços
artificiais / áreas próximas
dos rios

Integração

Maior participação dos
relativos à comunidade



4

Interesse
Comum

1



Atuação Local

Atuação Global

3

2

Interesse
Individual



4 step approach to exploratory landscape scenarios

- 1.** Identification of driving forces and critical uncertainties
- 2.** Scenario construction - definition of plausible futures
- 3.** Validation of the scenarios by an expert-panel
- 4.** Discussion with of stakeholders on their expectations towards future landscape based on visualization

“Living the idyllic countryside”



“Fashion wilderness”



“Environmental technocracy”



“Oasis recreated”



visioning the future - interviews

Expert panel (18)



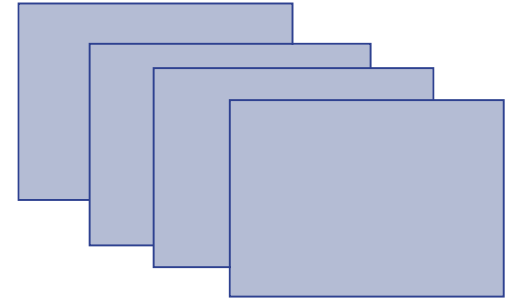
Agriculture
Regional development
Energy
Forestry
Landscape
Nature Conservation
Tourism
Transportation
Social
Game

Local Stakeholder panel (16)

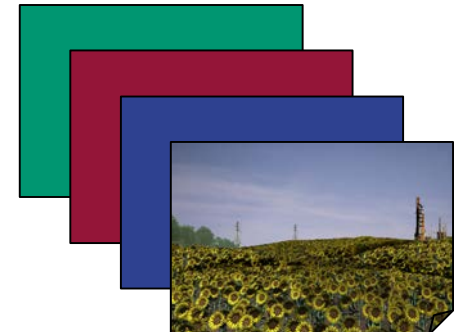


Farmers
Heath care & social services
Administration
Nature Conservation
Tourism operators
Culture & education

■ “storylines” - small narratives



visual simulation

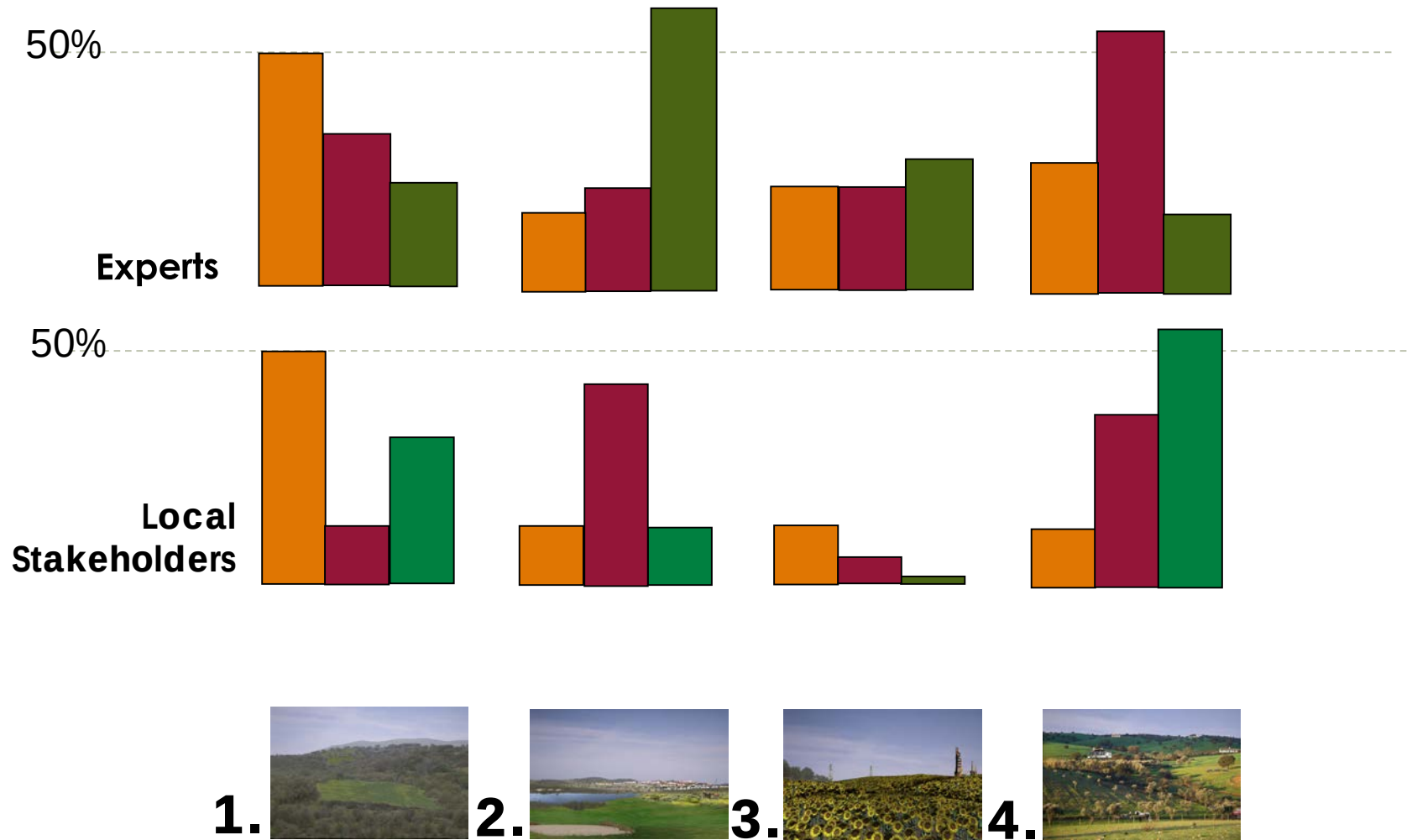


■ Images

visioning the future - interviews

A set of 3 questions is used as guidance though the interviews:

- (1) What scenario is **most likely** to happen?
- (2) What is most **desirable** to happen?
- (3) What scenario will be **preferred by others** (stakeholders/visitors)?



 Most likely - 'trend'
  Most desirable
  Most desirable for others - locals
  Most desirable for other - visitors



“the most sustainable”



Experts

Local stakeholders



- dispersal of housing is not desirable
 - too high costs in infrastructures
- degradation visual quality of the landscape
- property structure does not favor it



“ensures the creation of jobs”



Local stakeholders

Experts



- **“...it is closest to idea of locals of development and modernity”**
 - Loss of tradition and identity
- Presence of population with other cultural background

SCENARIO 4 “Living the idyllic countryside”



Experts



value landscape functions

traditional land uses and management

SCENARIO 2 “Oasis recreated”



Local stakeholders



value landscape structure

look for change in traditional functions

Experts and stakeholders share the same view on future trends:

- **“renaturalization” is seen as resignation to current policy (CAP)**
- **It is not desirable,...**
...but local stakeholders feel not threaten by it.

Experts and stakeholders have different views for the future:

- **experts prefer the a nostalgic return to the past (focus on tradition)**
- **local stakeholders aim for economic development (focus on jobs and people)**



Experts



Decision
makers



Visitors

Local
Population

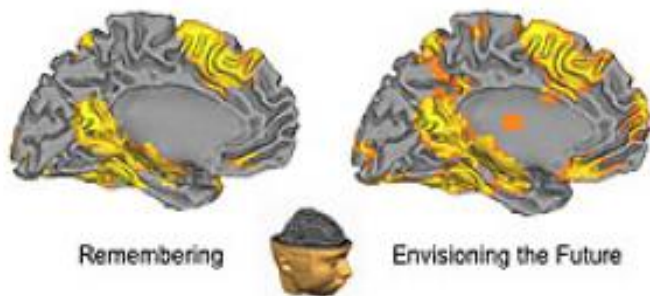
envisioning the future

♦ “(...) the same regions is activated in a similar pattern whenever a person remembers an event from the past or imagines himself in a future situation”.



... draws from past individual experience

Szpunar, K.; Watson, J. and McDermott, K. (2007) Neural substrates of envisioning the future. *PNAS* 104(2): 642-647



• BENEFITS FROM INTEGRATION OF MULTIPLE VIEWS

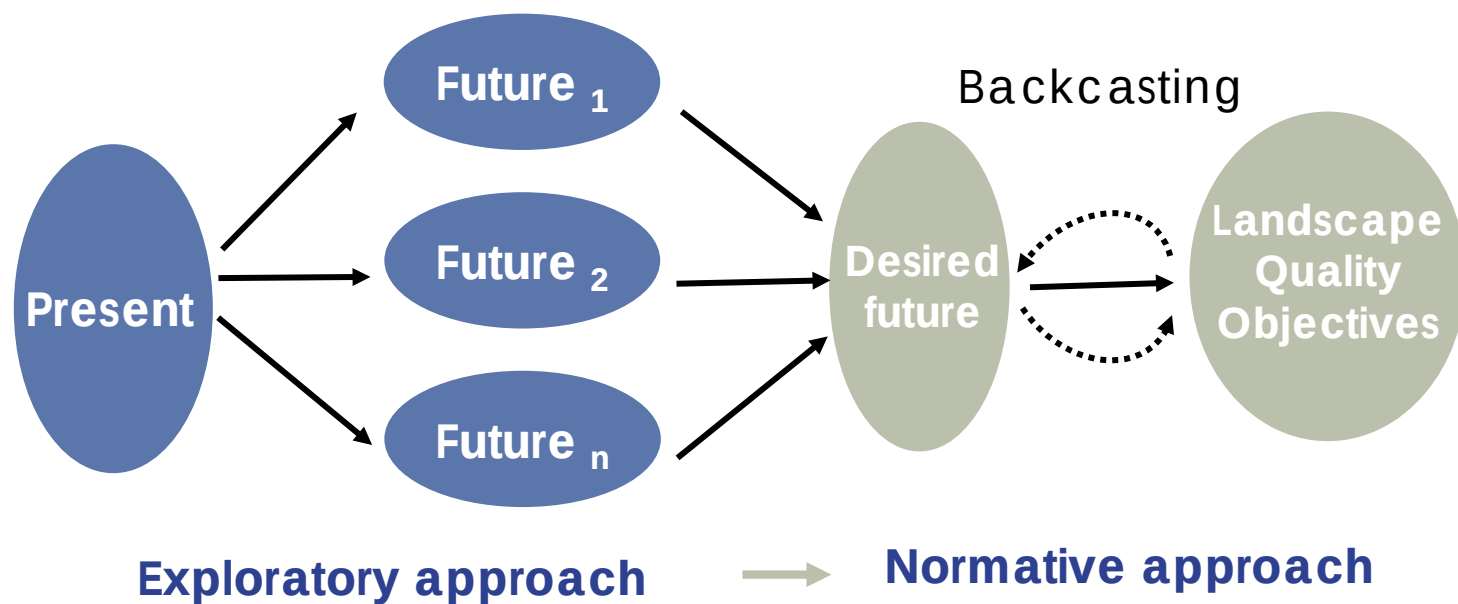
• BENEFITS FROM DISCUSSION AND ASSESSMENT OF THE PRESENT

♦ “If we don't know what state we would be in right now if we could be in whatever state we wanted, how can we possibly know in what state we would like to be in the future?”

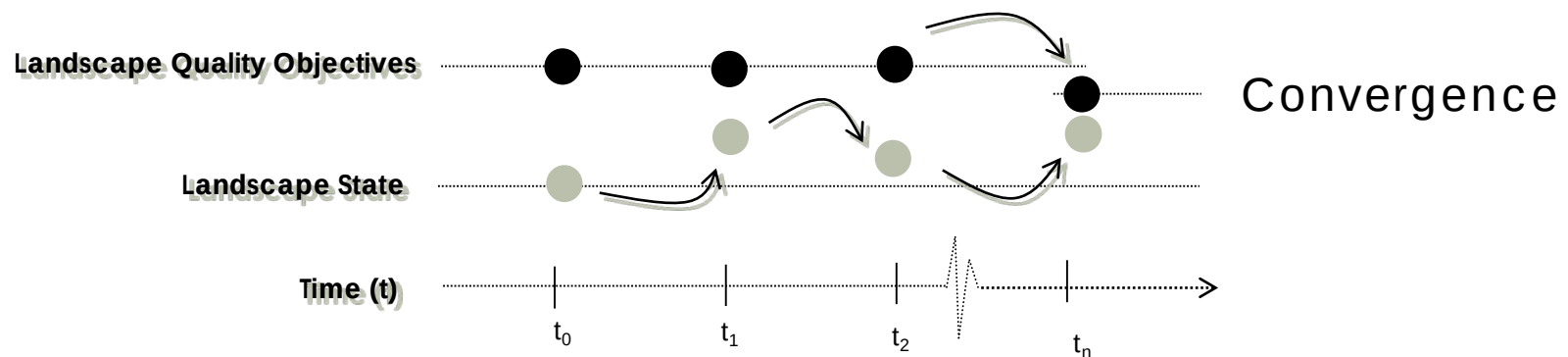


... draws from consciousness of present condition

Ackoff R. (2006) Thinking about the future and globalization. Keynote Speech. 25th Annual Tallberg Forum.



Landscape monitoring



The process can be important than the outcome

Mobilizing people for action towards the implementation of
Landscape Quality Objectives