ICT Technology Foresight
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From „slicing the big elephant"

towards drivers and scenarios

The foresighting project

National Council for Communications and Informatics in 2005 established a project for ICT forcasting

To inform proactively the decision makers about the technology trends

Systematic desk top research has been done by 5 experts

Results:

- Future inpacts of ICT technologies

- Information providing to decision makers

- Consultation with the professional community

- Forcasting methodology

Website:

www.nhit-it3.hu

First step:
define the areas of scope

Technology supply

- Phisical basis
- Communications
- Enduser devices
- System design
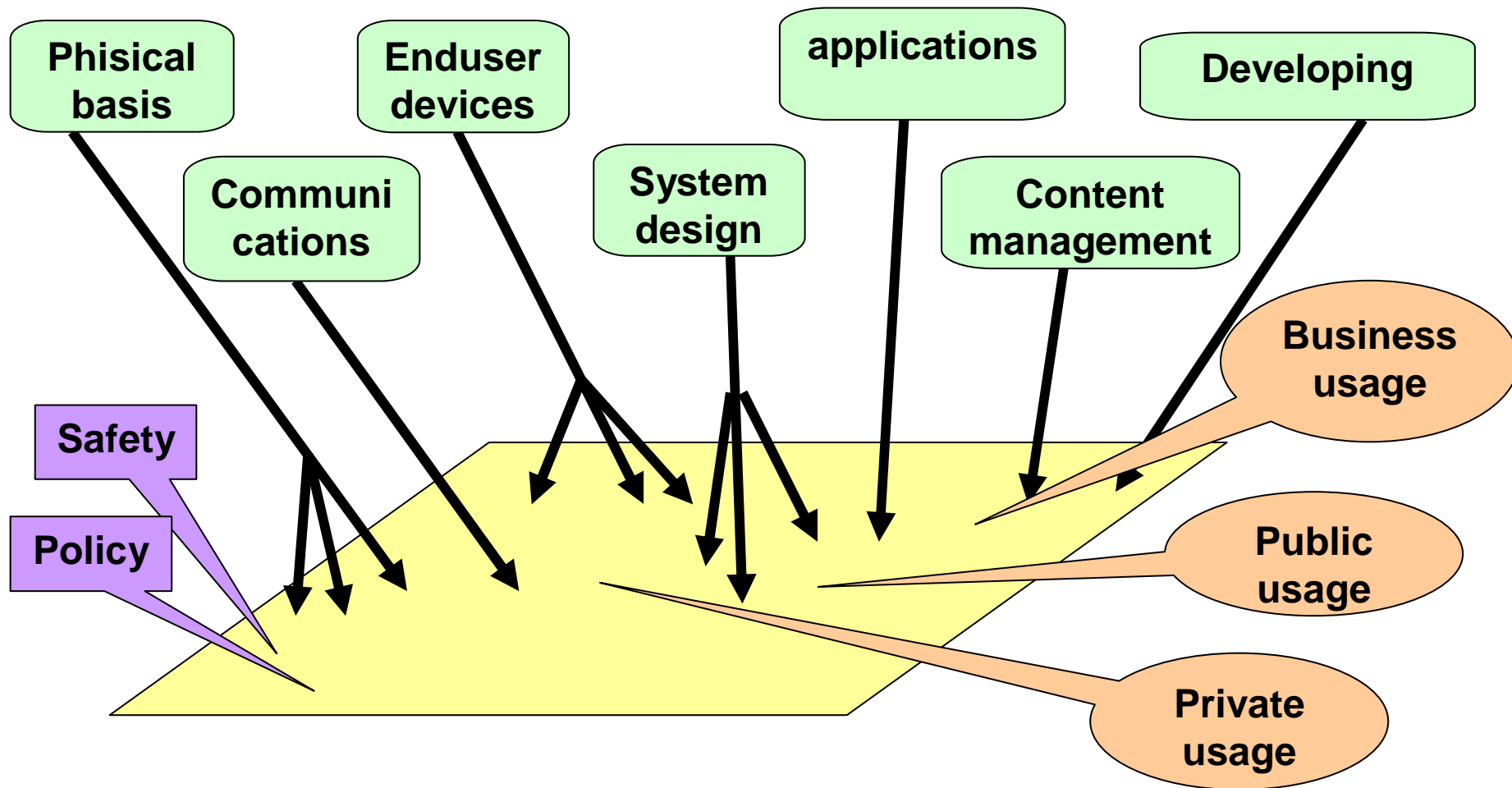- Applications
- Content Management
- Developing and maintenance

Demand side:

- Business usage
- Public usage
- Civil and private usage

Horizontal topics:

- Safety and security
- Policy and regulation
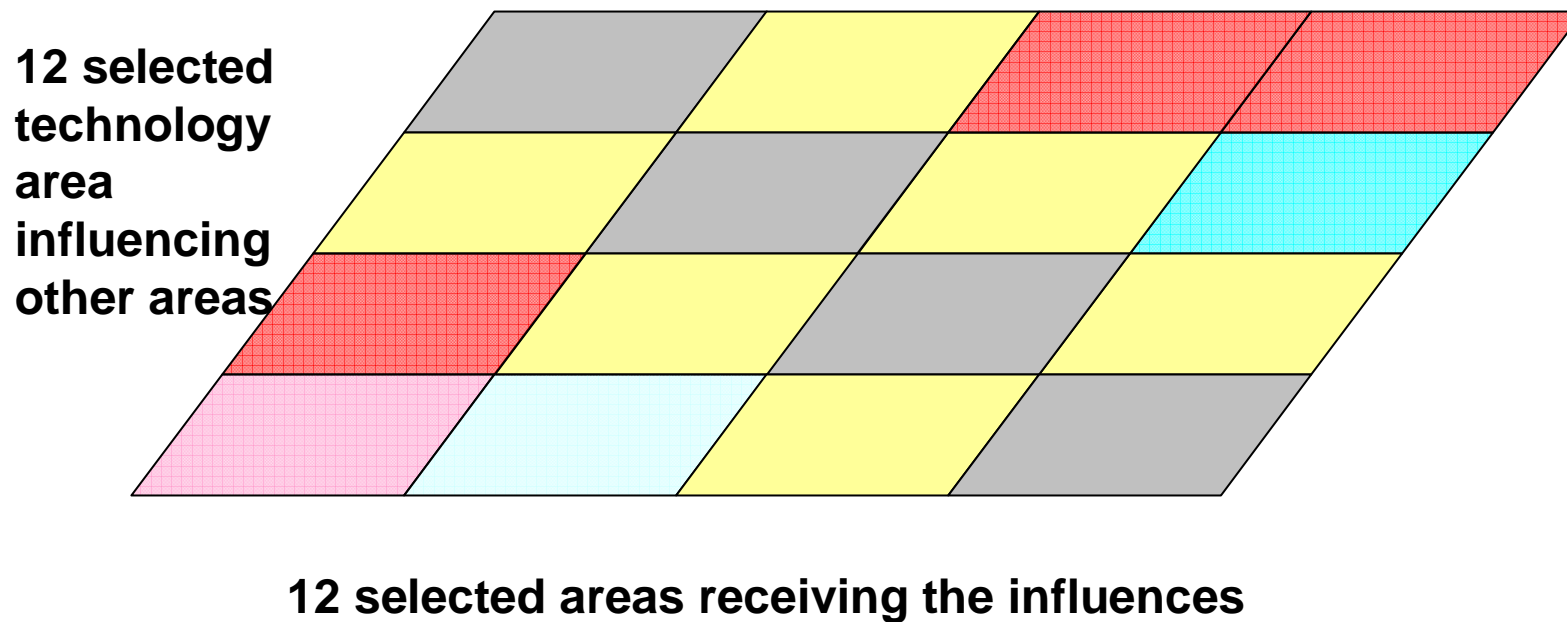
Main issues of the 12 areas

Phisical basis

Communi cations

Enduser devices

System design

applications

Content management

Developing

Safety

Policy

Business usage

Public usage

Private usage

Each area shows the actual and future questions to solve
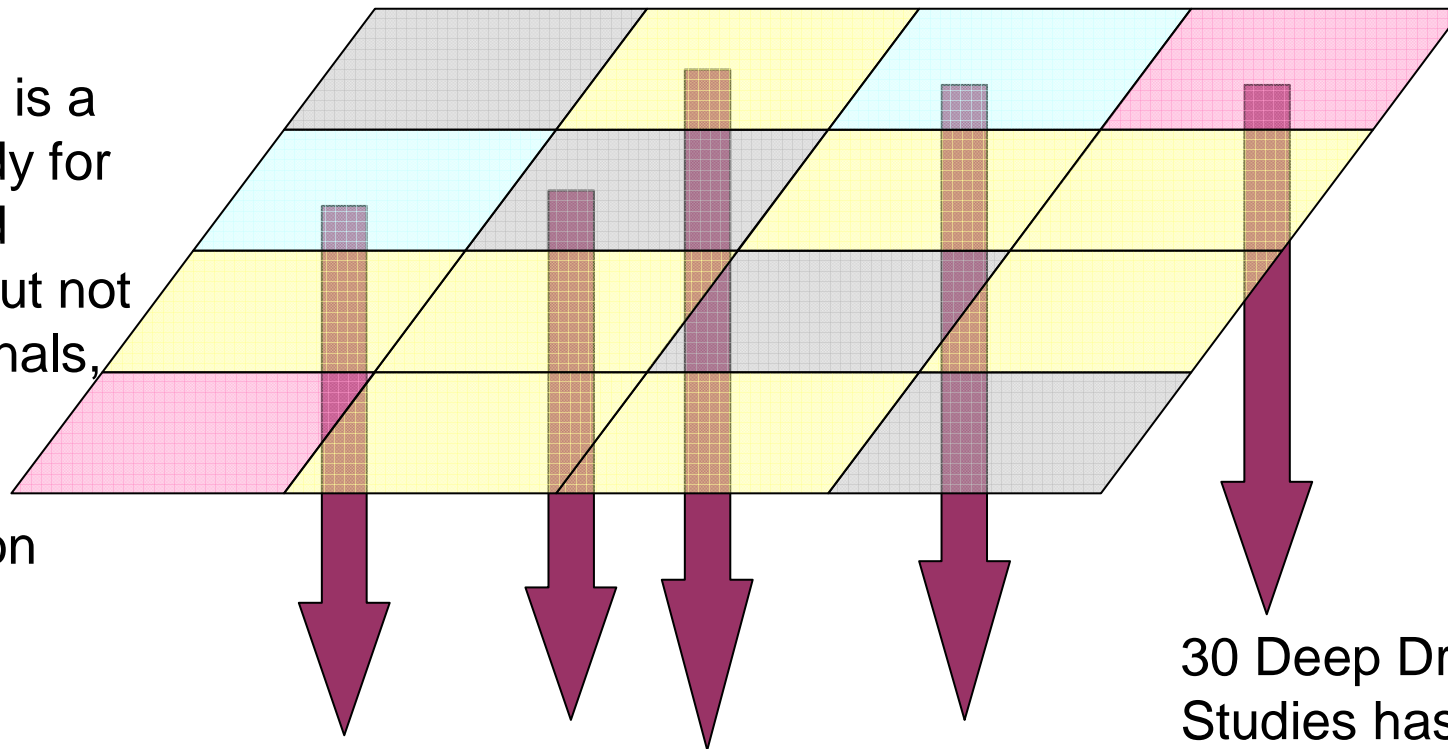
Cross effect analysis

Possible cases:
- *no or weak cross effect,*
- *rather strong one direction influence**
- *mutual but assymetrical influences*,*
- *mutual and symmetrical influences*.*

* Where to drill deep?

12 selected technology area influencing other areas

12 selected areas receiving the influences

„Deap Drill" Studies

Deep drill is a short study for interested readers but not professionals, providing further information sources

Forcasting in a focused technological area for 10-15 years

30 Deep Drill Studies has been done

Template for „Deep Drill" Studies

Thesis: the message

- Scope of the study
- Current status of the area
- Research projects now
- Most probable future
- Technological preconditions
- Expectable effects
- Domestical development
- Summary

Enhanced temlate later:

Driver analysis
- T -Technology
- E -Economy
- S – Social (and Politics)

Influence analysis
- T -Technology
- E -Economy
- S – Social (and Politics)

Approach:
The most probable future, not the most desirable!!!

List of the deep drill studies

Phisical Basis
- Unlimited bandwith and storages
- Biology and Informatics
- Nanoelectronics, Plasztronics

Communication technologies
- Next Generaton Networks
- IP based television
- ***Radiofrequency identifications***
- ***Flexible man-machine interface***
- ***Enduser devices***
- IcT implants

Systems based new components
- ***Personal identification***
- Systems based on sensors
- Agent technologies
- Embedded systems
- Mobile robots

Software and security
- „Open source" softwares
- Security focused planning
- Privacy enhancing technologies
- Long term archivation

Applications
- IT Utility
- Service based applications
- Business intelligence
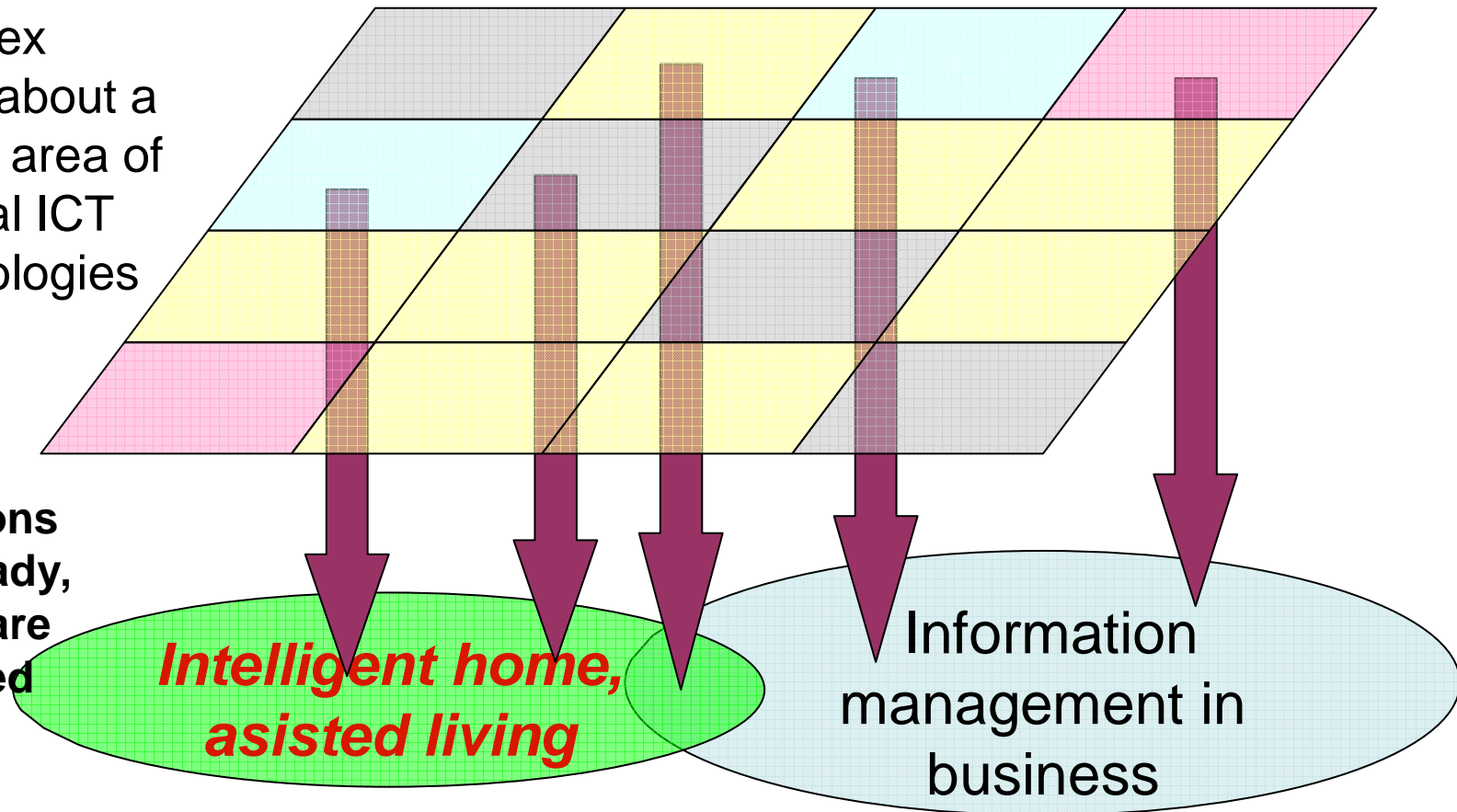- Computerised text analitics
- Semantic technologies

Content management
- Web 2.0
- P2P and its influences
- Collective content providing
- Virtual presence and virtual worlds
- Online multiplayer games

Vision of usage

A vision is a complex study about a usage area of several ICT technologies

2 Visions are ready, more are planned

Intelligent home, asisted living

Information management in business

Vision and Scenarios

Usage areas:

- Scope and status
- Demand functions
- Technology supply
- Driver analysis (P.,E.,S.,T.)
- Forecasting drivers
- Influence & uncertainty

Main vision:

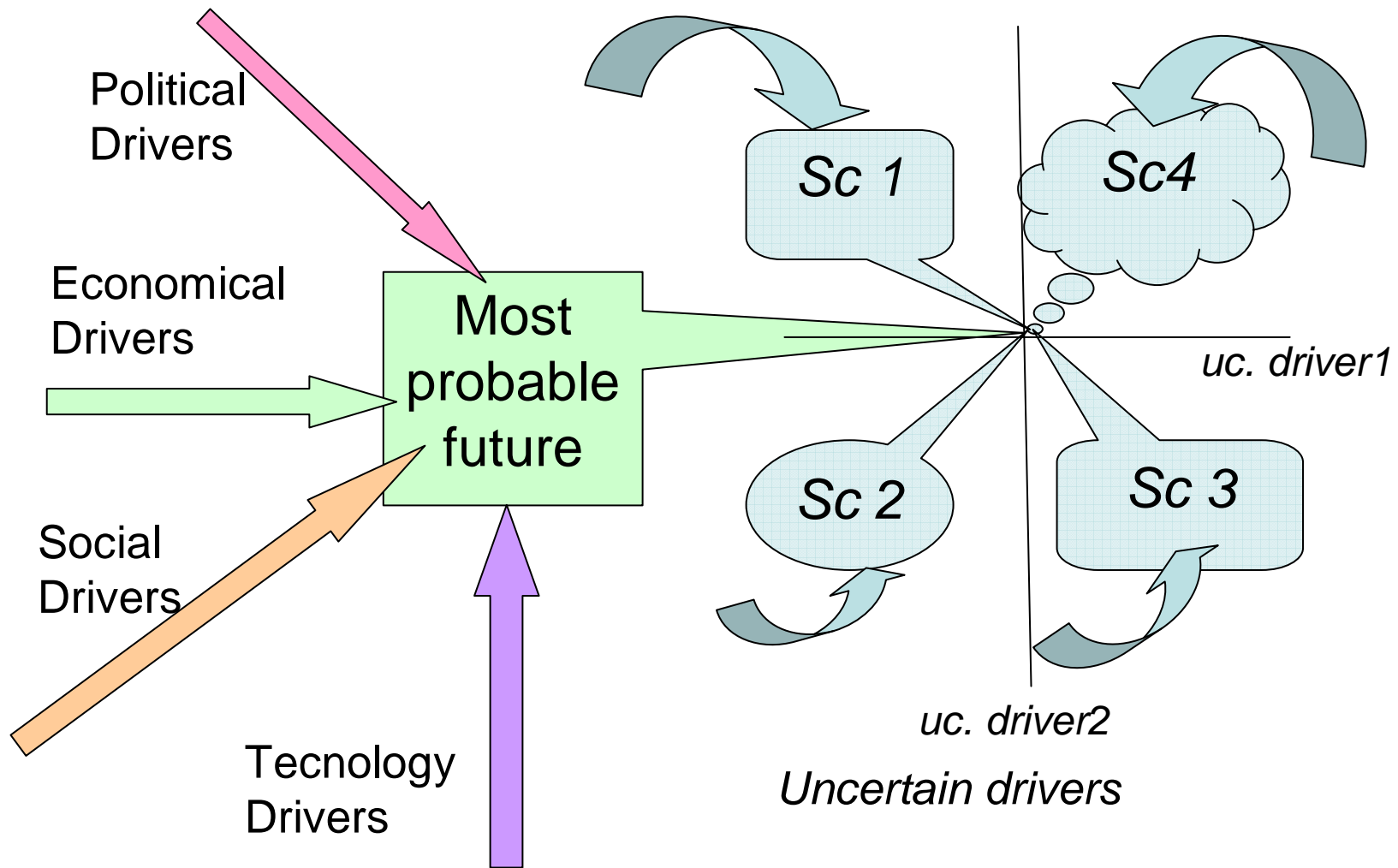- Most probable future according the stable drivers

Scenarios:

- Future diversity based on uncertain drivers

Illustrations:

- Narratives or future milestones

Scenarios within the vision

Political
Drivers

Economical
Drivers

Most
probable
future

Social
Drivers

Tecnology
Drivers

Sc 1

Sc4

Sc 2

Sc 3

uc. driver1

uc. driver2

Uncertain drivers

Other activities

Panorama:

- Newsletter with short news commented (why is it interesting for us)

- Bimonthly on the website and also on paper

- Sent to decision makers to about 100 adresses (middle management in public administration)

- It is also in English

There is a professional community of 40 people

- New studies are presented and discussed in this community

- Every month there is a meeting

- The materials are finalised after this presentation