



TECHNOLOGY  
CENTRE ASCR

# **National Priorities of Oriented Research, Experimental Development and Innovation in the Czech Republic**

**March 14th, 2013**  
**PACITA conference, Prague**

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- National RDI priorities and TA in the Czech Republic
- Rationale of the project
- Methodology
- Results and consequent activities

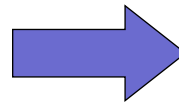
## National RDI priorities and TA in the Czech Republic

- Setting up the national RDI priorities
  - Forward-looking approach used since 2001 (National Research Programme I)
- Former RDI priorities
  - Broadly defined
  - Limited relationships to wider social, economic and environmental aspects
  - Limited use of technology assessment tools and methods

## Rationale of the Project

### Policy level

- National Policy of Research, Development and Innovation (RDI) of the Czech Republic for 2009 – 2015
  - Increase the effectiveness of targeted public support to RDI
  - Link the public support to RDI to broad needs of sustainable development

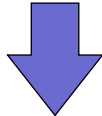


Reformulation of current priorities of applied research, development and innovation

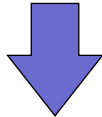
- Body responsible for the process of formulation of new priorities – Council for research, development and innovation (RDI Council)

## Rationale of the Project Organizations involved

- **RDI Council**



**Secretariat of the RDI Council** (Office of Government)



**Coordination Expert Council** – principal management body

### **Technology Centre ASCR**

- Public contract „Analyses and background papers for implementation and update of the National RDI Policy“
- Background studies
- Methodology and administrative activities
- cooperation with:
  - **Centre for Social and Economic Strategies** (Charles University in Prague)
  - **National Training Fund**

## Rationale of the Project Principles

### Principles of the new RDI priorities:

- **Problem-orientation**

- RDI priorities should address current and anticipated socio-economic and environmental needs of the Czech Republic
- RDI as one of the means to achieve a broader success

- **Priorities as targets**

- RDI priorities are to be defined as mid- or long-term targets for RDI, not as specific RDI directions

- **Feasibility**

- Adequate capacities (financial, personal, etc.) of Czech RDI must exist in order to achieve the RDI targets

- **Consensuality**

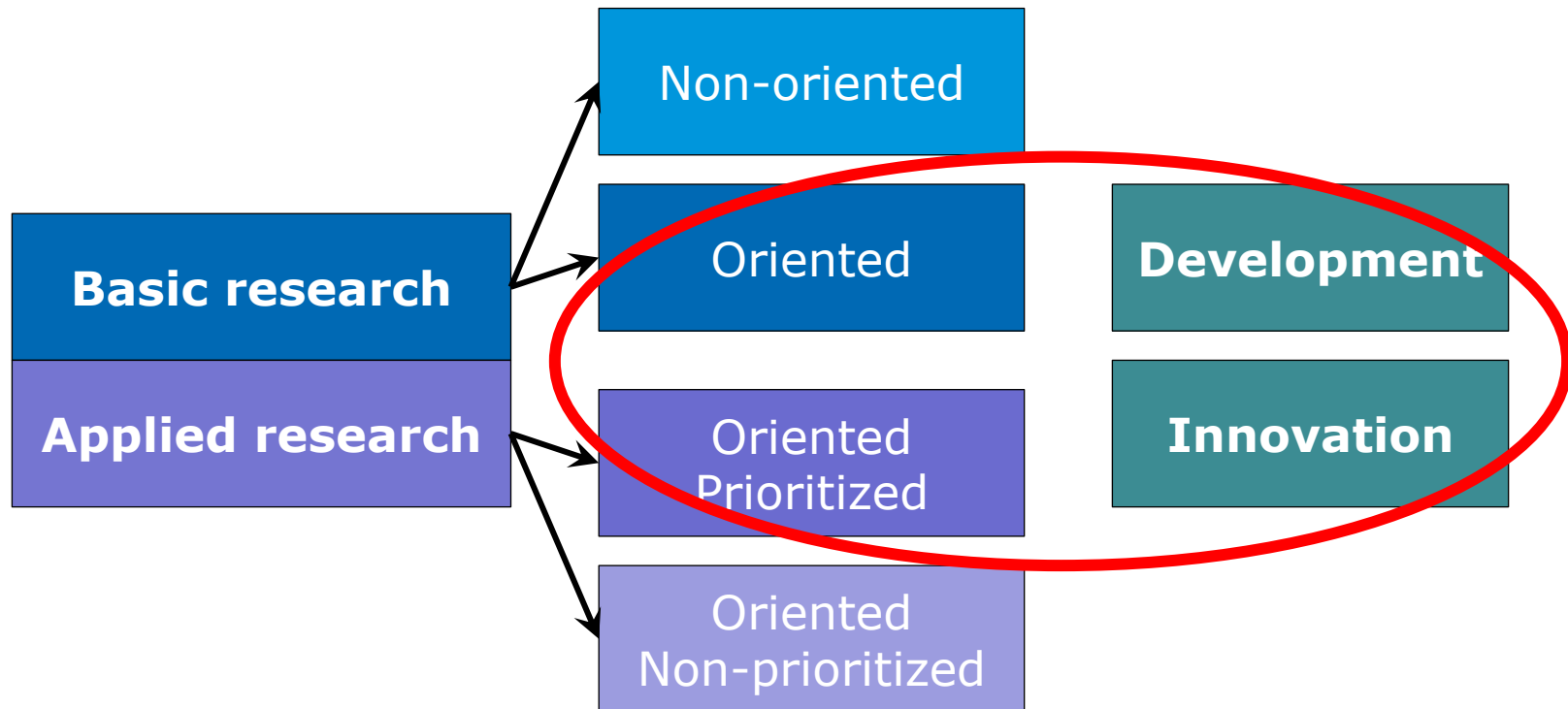
- RDI priorities are to be a result of a broad consensus of representatives of various fields of science, sectors, industry, and public administration

- The principles formed basis for the methodological design of the process leading to identification of new RDI priorities

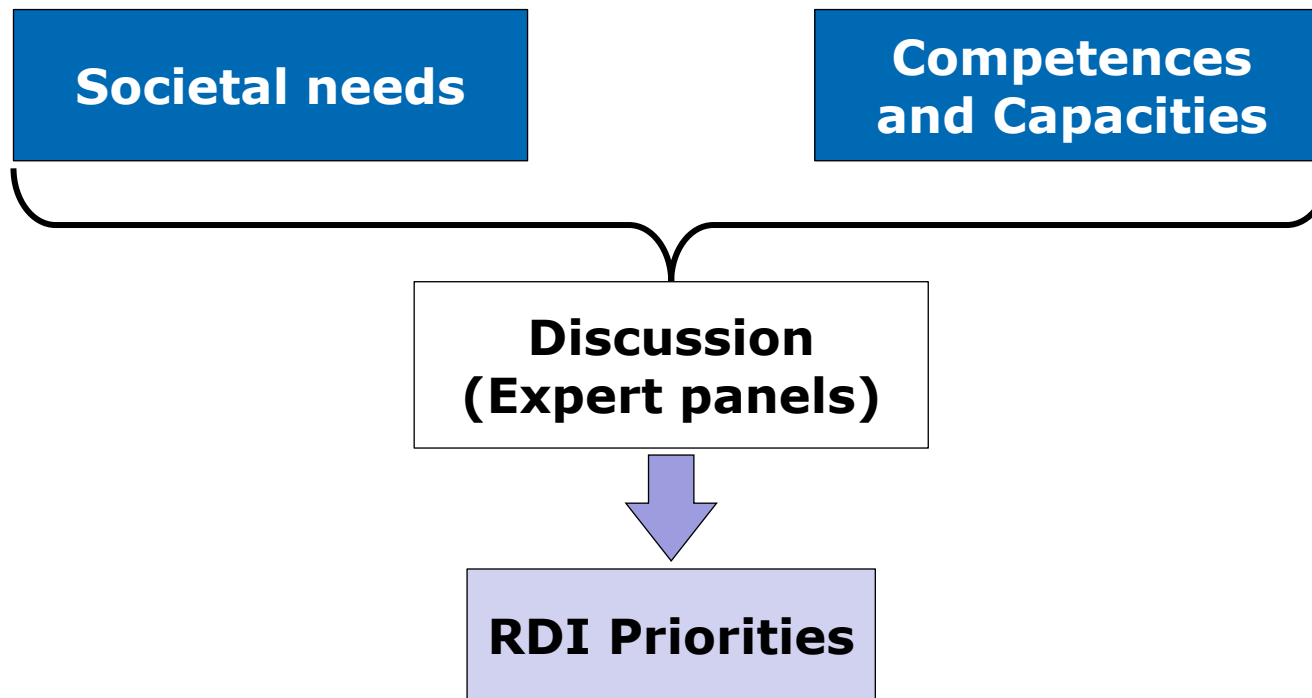
## Methodology

### Concept of research

- The principle of problem-oriented RDI priorities challenged the traditional division of research into basic and applied
- A novel concept of **oriented** research was created



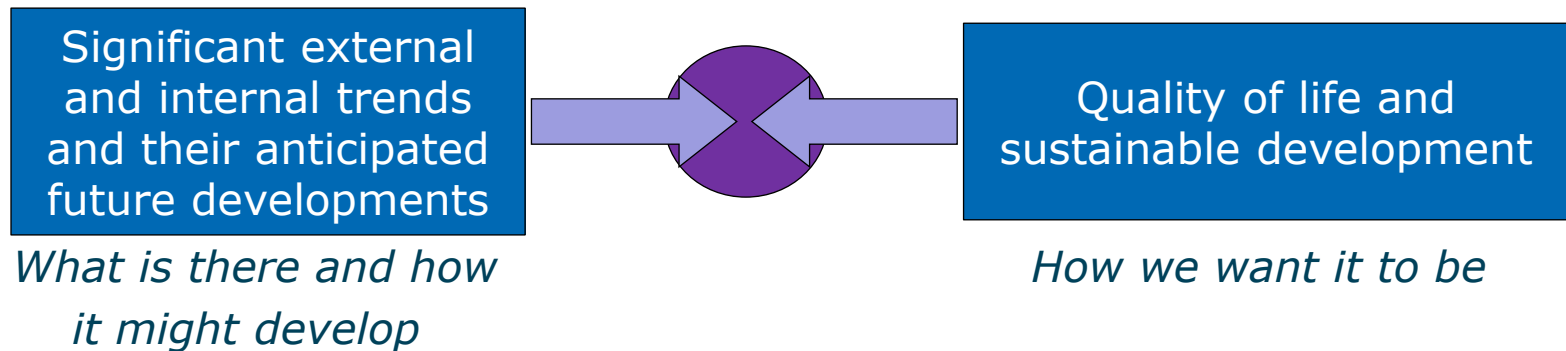
- Combination of a **forward-looking** and **backward-looking** approach





### Identification of major societal needs

- Clusters of major societal challenges and opportunities of the Czech Republic in the time-horizon of 2030

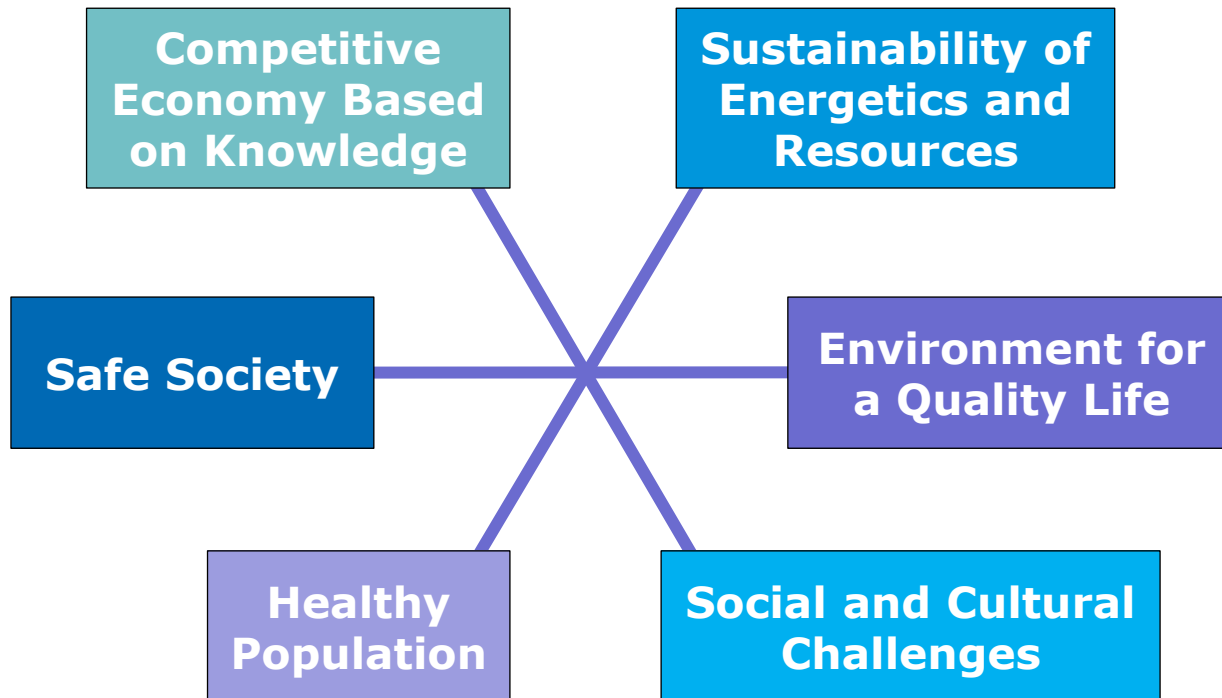


- Desk-research
- Interdisciplinary workshops

## Methodology

### Priority areas

- On the basis of the identified societal needs, six complex problem-oriented priority areas were set up by the Coordination Expert Council



## Competences and Capacities

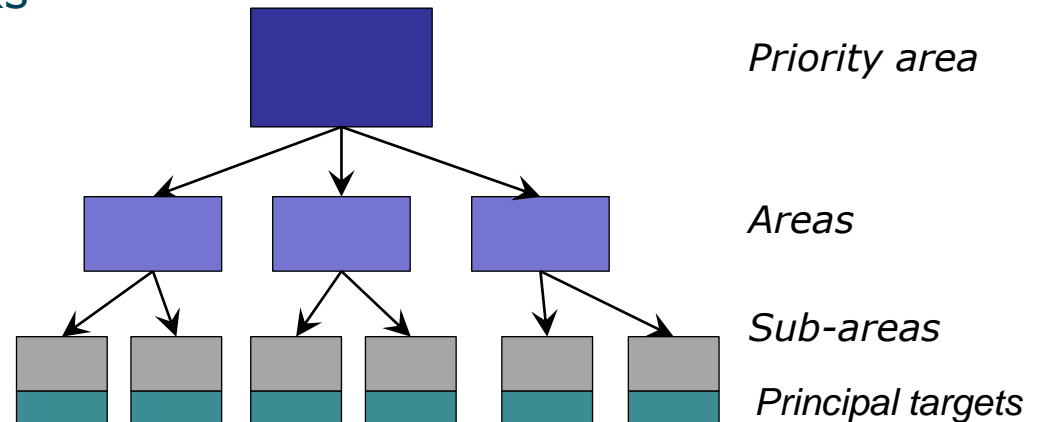
- Extensive desk research, surveys and questionnaires
  - **Map of R&D and application potential of the Czech Republic**
    - Performance of R&D
    - Evaluation of application potential
    - Human resources in RDI
    - Governmental expenditures on RDI (GBAORD)
    - R&D infrastructure
    - International cooperation in R&D
  - Background documents in latter stages of the process
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### Establishment of expert panels

- To each of the priority area, a multidisciplinary expert panel of ca 15 representatives of scientific community and industry was established
- Members of the Coordination Expert Council – heads of the expert panels
- Mission of the expert panels:
  - To identify a set of priority targets for RDI addressing the challenges and opportunities within a given priority area
  - To propose supporting policy measures which would – next to RDI – contribute to achievement of the set targets

### 1. Breakdown of the priority area

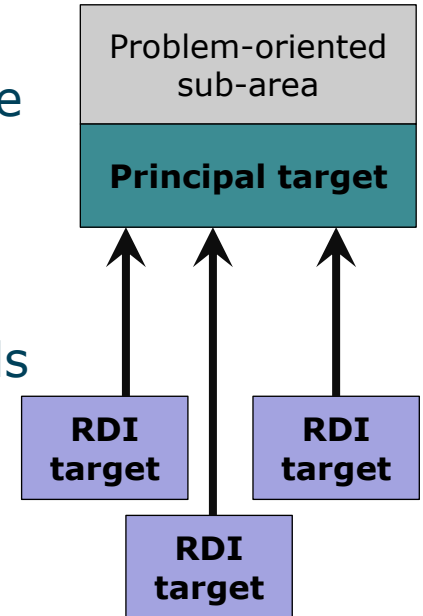
- Two-level division of the priority area into more specific problem-oriented blocks



- Description of a desired state of a given sub-area in the time-horizon of 2030
  - **Principal targets**

## 2. Formulation of targets for RDI

- To one principal target, several targets for RDI were identified
- Targets for RDI – if achieved – were to contribute to fulfilment of the principal target
  - Usually in a closer time-horizon (2020)
- To each of the target for RDI, most relevant fields of science were identified



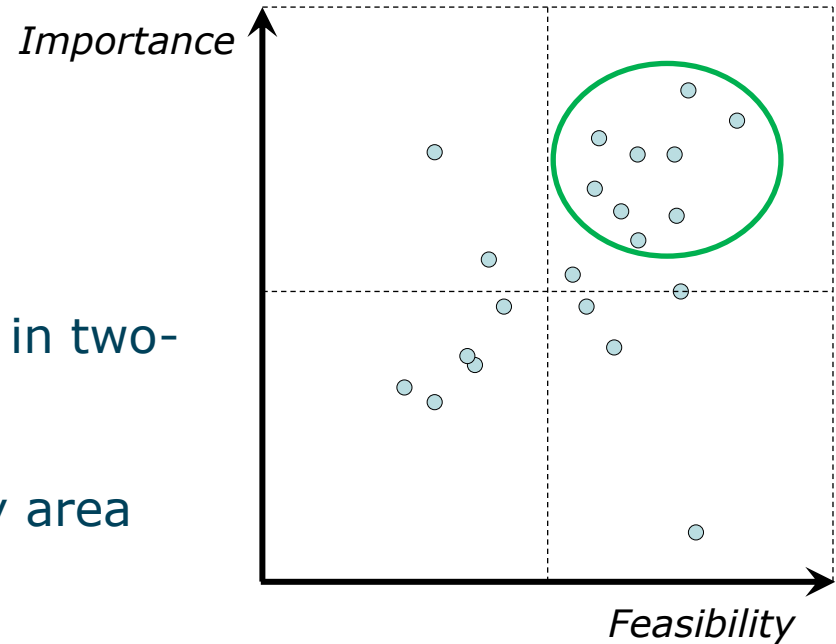
### 3. Selection of RDI priorities

- Within each priority area, evaluation of targets for RDI took place

**IMPORTANCE;** e.g. economic, social, environmental

**FEASIBILITY;** e.g. The quality of R&D, human resources, absorption capacity etc.

- Position of the RDI targets in two-dimensional graphs
- One graph for each priority area



## Results

- Final set of priority RDI targets within each priority area

- 17

**Competitive Economy Based on Knowledge**

- 36

**Sustainability of Energetics and Resources**

- 26

**Environment for a Quality Life**

- 26

**Social and Cultural Challenges**

- 41

**Healthy Population**

- 25

**Safe Society**

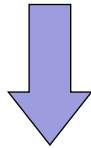


## Follow-up activities

- The activities of expert panels terminated by the end of 2011
- **January 2012:** The proposal of RDI priorities was approved by the Coordination Expert Council
- **March 2012:** Approval by the RDI Council
- **July 2012:** The RDI priorities were approved by the Czech government
- Task to the RDI Council: to prepare a **Plan of implementation of RDI priorities**
  - A general framework of systematic and coordinated implementation of RDI priorities
  - Unified monitoring and evaluation of RDI programmes
  - Framework for evaluation of fulfilment of the set targets
  - Re-assessment of relevance of the priority areas in ca 2020
- Currently underway in close cooperation with providers of public support to RDI

## RDI priorities and TA

- The new RDI priorities address wide spectrum of human activities
  - Health, social and cultural challenges, security, ...
  - Establishment of a clear link between the social, economic and environmental issues and the sphere of research, development and innovation



- New RDI priorities and their implementation create a framework for subsequent utilization of a technology assessment
  - Assessment of impact of the RDI targets/ expected RDI results on wider society, economy and environment
  - Easier presentation of R&D results to the general public

**The end**

**Thank you!**

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