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

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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.
Methodology
Basic approach

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

  ![Diagram]

  - **Societal needs**
  - **Competences and Capacities**

  **Discussion (Expert panels)**

  **RDI Priorities**
Methodology

Identification of major societal needs

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

What is there and how it might develop

- Desk-research
- Interdisciplinary workshops

How we want it to be

Significant external and internal trends and their anticipated future developments

Quality of life and sustainable development
On the basis of the identified societal needs, six complex problem-oriented priority areas were set up by the Coordination Expert Council:

- Competitive Economy Based on Knowledge
- Sustainability of Energetics and Resources
- Environment for a Quality Life
- Safe Society
- Healthy Population
- Social and Cultural Challenges
Methodology

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
Methodology

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
Methodology
Expert panel activities

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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