

RESEARCH2015

A Basis for Prioritisation of Strategic Research



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Agenda

- Background
- The RESEARCH2015-initiative
- The catalogue and its use
- Evaluation
- Next proces



A new initiative

"Research needs derived from socio-economic developments should be mapped on an ongoing basis compared to the capacity of Danish research institutions to respond to those needs. The mapping should involve hearings, consultation processes with ministries, institutions, and stakeholder organisations, as well as studies and analyses. Every four years the mapping exercise must be disseminated in a catalogue in which central themes for future strategic research are identified". ("Agreement on the implementation of the Globalisation Funds from 2006")



A new initiative II

- •Commissioned by a broad majority in the Danish Parliament
- •**Purpose**: To improve the basis for prioritising areas of strategic research in Denmark
- •Mandate: To perform an inclusive mapping of the research demands created by the development of society and the economy as well as the capability of Danish research institutions to address that demand
- •**Results**: A catalogue of suggestions for promising areas of strategic research to be used in the political prioritisation of funds for strategic research areas



Strategic Research

Government funding for R&D

(15,6 billion DKK)

General University fund

(8,2 billion DKK)

Research Councils

(3,6 billion DKK)

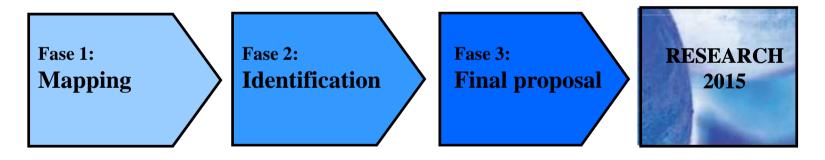
The Danish Council for Strategic Reseach

(1,1 million DKK)



RESEARCH2015-initiative

- Three steps:





Fase 1:
Mapping

Fase 2:
Identification

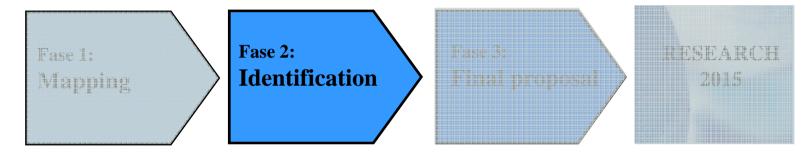
Final proposal

2015

Fase 1: Mapping of research needs

- Purpose: to identify a gross list of important challenges and the research demands they create
- Three components:
 - 1) An international literature scan by the OECD (125)
 - 2) A broad public internet hearing (366)
 - 3) Input from the ministries (90).

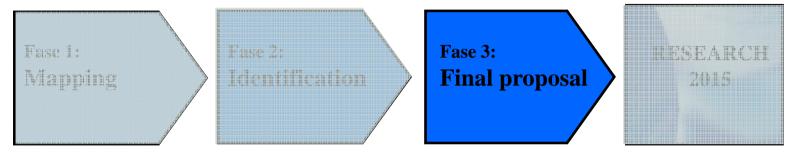




Fase 2: Identification of themes

- Purpose: To identify a limited number of coherent themes for strategic research
- Three steps:
 - 1) An expert panel makes an analysis of the mapping
 - 2) The panel stress tests their thoughts against a 'user panel'
 - 3) The experts deliver their final suggestion.





Fase 3: The final proposal

- Purpose: To select the final suggestions for strategic research and secure political support for the catalogue
- Extensive dialogue:
 - 1) Dialogue with all relevant organisations
 - 2) Dialogue with all involved ministries
 - 3) Dialogue with the research councils
 - 4) Development of the final catalogue.



The product



21 Themes

- that are directed at important societal challenges
- where research-based knowledge is an important *mean*
- that are broad enough to ensure competition amongst research institutions
- that are concrete enough to form the basis of coherent research programmes



Danish Agency for Science Technology and Innovation

Ministry of Science Technology and Innovation

The 21 themes

Energy, climate and environment



- 1. Energy systems of the future
- 2. Future climate and climate adaptation
- 3. Competitive environmental technologies

Production and technology



- 4. Bioresources, food and other biological products
- 5. Intelligent solutions for society
- 6. The production systems of the future
- 7. Strategic growth technologies

Health and prevention



- 8. From basic research to individualised treatment
- 9. Chronic disease between prevention and rehabilitation
- 10. Human health and safety in interaction with environmental factors
- 11. Healthy lifestyle what creates change?

Innovation and competitiveness



- 12. Denmark's competitiveness
- 13. Innovation
- 14. The public sector of the future

Knowledge and education



- 15. Education, learning and competence development
- 16. What works? Evidence in practice
- 17. Knowledge production and dissemination of knowledge in society

People and societal design



- 18. Sustainable transport and infrastructure
- 19. Better lifespace space for life and growth
- 20. Cultural understanding in a globalised world
- 21. Changing lives



Evaluation

- Evaluation carried out by Danish Technological Institute
- November 2008 to April 2009
- 25 interviews, a survey and desk research
- Results concerning the <u>product</u>, the <u>proces</u> and the <u>method</u>
- Results has informed the next proces



Evaluation. Results 1/3

Product

- The catalogue was used as a frame of reference during the political negotiations
- The Danish council for Strategic Research used the catalogue as a frame of their calls
- The catalogue is a better basis for the prioritization of strategic research
- It gives a good overview. Right themes addressing central societal challenges
- Support to the transdeciplinary approach
- More information which can help prioritisation "between" the themes is needed – incl. more information on Danish position of strengths
- More information on Danish preconditions is needed
- The value of the catalogue concern the overview however the catalogue does not address radical new thematics
- Despite contentment with the catalogue, questions are raised concerning the future use of the catalogue



Evaluation. Results 2/3

Proces

- The involved actors are happy with the process and their feel that all relevant stakeholders have been involved
- The catalogue mirrors the process, and the ministry has treated the incoming suggestions fair and loyally
- The catalogue should be used more than once or otherwise to many resources has gone into making the catalogue



Evaluation. Results 3/3

Methods

- Positive evaluation of the method used
- The mapping has given a good point of departure for the work of the expert group
- The OECD horizon scan was used as a backdrop
- The expert group functioned well, but did not have enough time
- The "user panel" worked well, but impact might have been more substantial if there had been more time
- The dialog meetings with ministries and stakeholders ensured a wide hearing of the themes and has ensured that the themes were suitable as strategic research focus areas

Conclusion: Good use of method - give us more time!



Use of the catalogue

Political Negotiations

- A frame of reference
- The catalogue was used in the political budget negotiations 2008, 2009 and 2010
- Around 1 billion DKK each year
- Focus on energy, environment technologies, future climate bioressources, intelligent solutions for society, individualised treatment and education

The Danish Council for Strategic Research

- The catalogue was used by The Danish Council for Strategic Research to formulate calls
- Bottom-up implementation

Other use

- Strategic/policy formulation on specific themes e.g. Green Reseach
- Mapping of reseach areas



Technology and Innovation A four-year cycle **Budget** Catalogue The initiative **Negotiations** will be repeated New catalogue in 2012 The final proposal **Evaluation Identification** New project description **Mapping Supporting analysis**



Next proces

- RESEACH2015 as a point of departure
- More in-depth mapping of Danish strengths, weaknesses and preconditions
- Focus on the long-term perspective
- More time for the individual elements in the process
- More structured involvement of lay persons e.g. conference/citizens hearing



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