

# Approaches to support industry-science linkages within specific scientific disciplines and industries

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# Agenda

1. The Danish context – recent developments in the Danish research funding scene with importance for impact studies
2. Approaches to stimulate innovation within areas – “synergy” as a guiding principle – case from Innovation Fund Denmark
3. How do “synergy”, “ecosystems” and “co-production” challenge how we approach the question of impact?

# The Danish context

## Three important events since the Lisbon workshop (April 2015)

- **AUGUST, 2015:** The Danish Government announced upcoming savings on public annual budget for research and education. Strong reactions from industry, universities and opposition.
- **SEPTEMBER 30, 2015:** Public conferences on the importance on long-term investments in research. E.g. “Danish research anno 2030: Will we still be world-class?” organised by the Danish think tank DEA.
- **APRIL 6, 2016:** Private foundations enter the debate. How to account for the impact of research on society? “Conference on the socioeconomic effects of investment in public research”, organised by the Danish private foundation NNF – subsequent call.

### Conclusions:

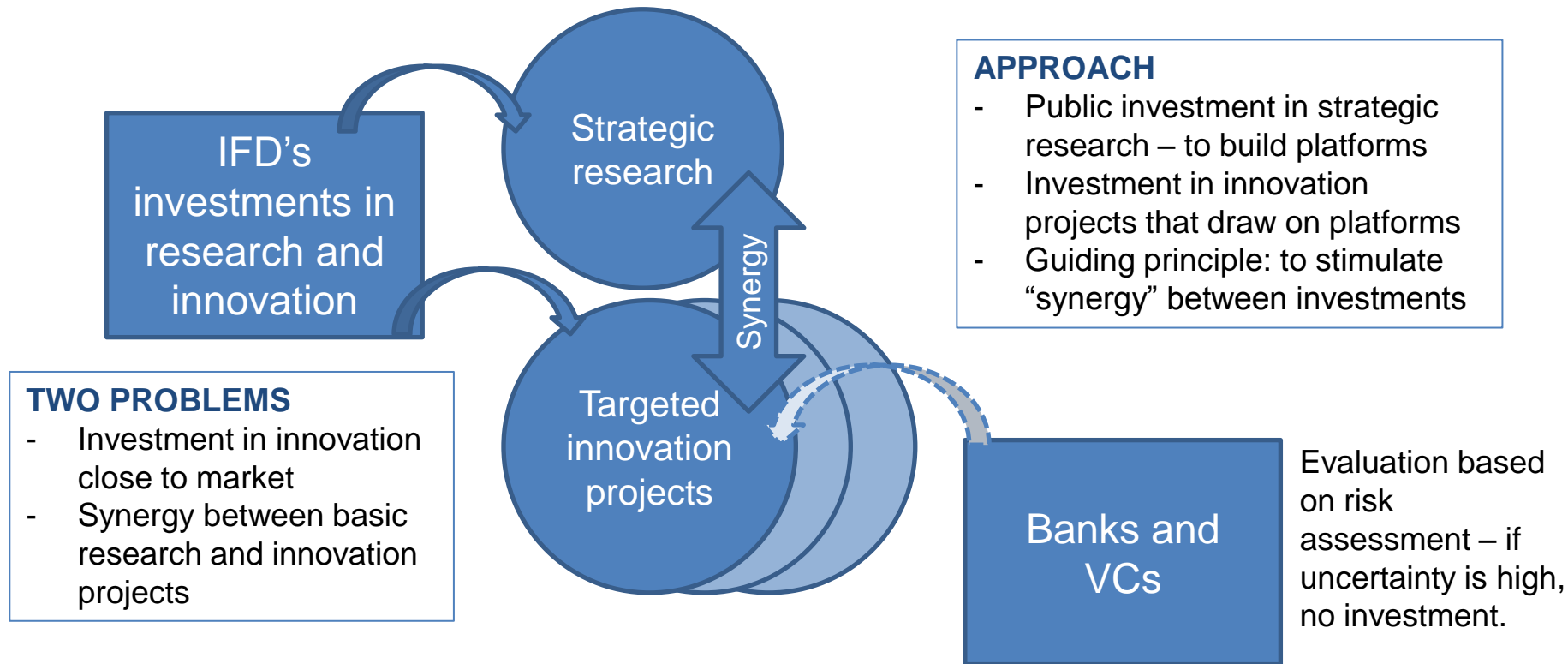
- Impact is increasingly becoming a ‘political’ matter in Denmark
- Not just about “measuring results” but also about the basic distribution of funds
- New actors enter the scene – private foundations and social scientists

# Innovation Fund Denmark (IFD)

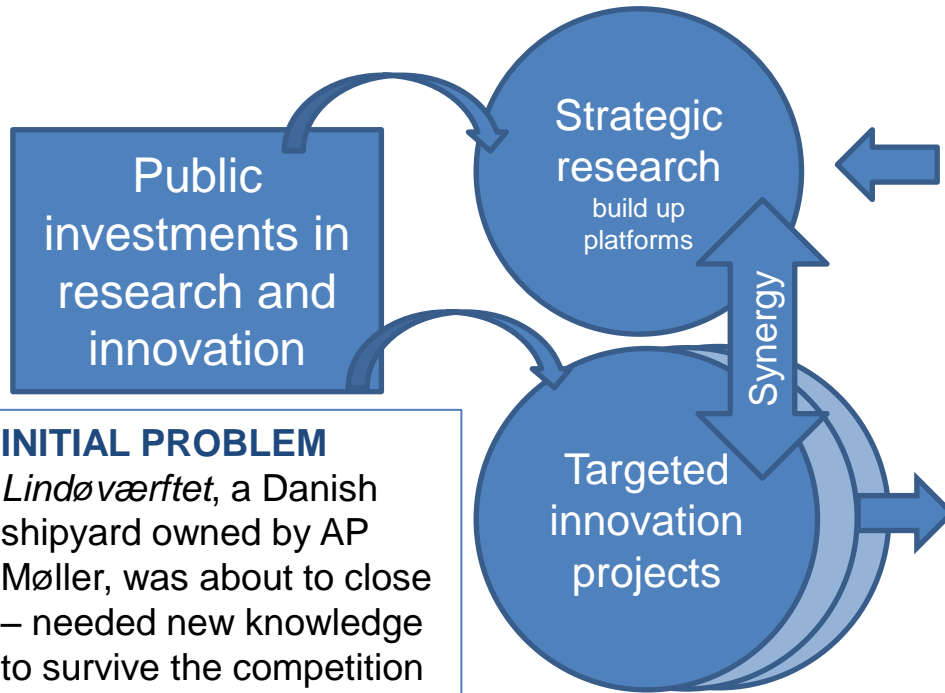
- Facts about IFD: Annual budget 160 million Euro – about 44% of the overall public annual budget for research funding in 2016 (362 million Euro).
- About half of the IFD budget is “earmarked” for topics and areas that involve specific scientific disciplines and industries.
- Examples: “Energy”, “Health and clinical research”, “Transportation and infrastructure”, “Tourism”, “Future Welfare”, “Psychiatry” → IFD calls based on IFD “strategy maps”.
- Main instrument for earmarked funds is “Grand Solutions” – projects up to 7 million Euro (some up to 11 million Euro) and duration: 2-5 years.
- The other half of the IFD budget goes to “bottom-up” innovation projects, not “thematic”.

**-> What is the guiding principle for stimulating innovation within these specific scientific areas and industries? ...Synergy!**

# Guiding principle behind IFD approach: synergy



# Example: public investments in robotics



## INITIAL PROBLEM

*Lindøværftet*, a Danish shipyard owned by AP Møller, was about to close – needed new knowledge to survive the competition

- 1999: Private investment for public research. Mærsk McKinney Møller granted 10 million Euro to establish a large research institute at University of Southern Denmark.

- 2000-2008: This grant was followed up by three subsequent grants from The Danish Council for Strategic Research and The Danish Advanced Technology Foundation

- 2008-2009: First companies started to come out of the research activities
- 2015: The Innovation Fund Denmark granted a large innovation project in Robotics, e.g. robots used in production of flights -> input for new research agendas.

## CONCLUSION

- A mix of future-oriented public and private investments in basic research
- Simultaneous investments in targeted innovation projects (that would not easily attract private funding)

