

Experiences from a macro-economic perspective to research evaluation

Advantages and risks when applying a cost-benefit methodology

National intervention from Norway
by Paul Gretland



NÆRINGS- OG HANDELSDEPARTEMENTET

Ministry of Trade and Industry

Methodology

- Societal cost-benefit analysis
 - 300 research projects 1995-2001 examined
 - Criteria for establishing their **net present value**: net benefits
 - To the company
 - To society
 - To the research community
 - To the consumers
 - But the issue of whether the projects would have been carried out without public support was only partly addressed
- Macro-economic level only



NÆRINGS- OG HANDELSDEPARTEMENTET

Ministry of Trade and Industry

Results

- The aggregate net present value slightly more than twice the size of the original R&D investment
- The original R&D investment less than 1/3 publicly finance

BUT

- 85 % of value creation by 12 out of the 300 projects
- 20 % of reported benefits realized at time of survey

ON THE OTHER HAND

- 175 of the 300 projects did not expect net benefits ex ante, but 25 of these reported net benefits ex post

A PROBLEM WITH TAXATION RULES?

Criteria

- Ex ante and ex post comparisons:
 - Reductions in net benefits and development of networks and technologies – *Things take time*
 - Increase in competency – *At least, they have learned something*
- Characteristics of basic research (dissemination): 35 %
- Projects that would not have taken place without support:
 - 44 % (1997-2004) – 52 % (2004)
- Projects that would have been carried out, but at reduced pace:
 - 52 % (1997-2004) – 44 % (2004)

ICT

- Insufficient statistics
 - In particular for services
- Migration from goods to services
- Impact of convergence on statistics
 - ICT for health results visible in health statistics rather than ICT statistics, etc.
- Indicators must not be too narrow
- But if they become too broad, causalities will not be documented

Conclusion - recap

- Mixed results from use of societal cost-benefit methodology
 - Positive to document a net present value twice the size of the initial R&D investment
 - BUT a lot of uncertainties
- Interesting findings from individual criteria when these were address separately
 - Expected results decrease from ex ante to ex post
 - Excepted for competency
 - High proportion of projects including basic research / contribution to society
- Information still missing in many areas