

Evaluation and Impact assessments

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What are we talking about?

Operational Definitions:

Impacts (of a policy measure) are **changes attributable to an intervention.**

More precisely, they can be defined by spread and timing:

- **Indirect effects** (beyond the participants of the programme) in contrast to
 - Outcomes: Effects on the participants of the programme
 - Outputs: (Measurable) results of funded projects (Rhombert et al. 2006)
- **Mid- and long-term effects / sustainable changes**

Impact assessment is one form of research in evaluations (eg. White 2009):

- **Analysis of added value compared to counter-factual situation (What would have happened anyway?) and in relation to the goals of the programme (Are the intended effects realized?).**
- In a wider understanding, impact assessments cover all types of effects, i. e. they include outputs and outcomes (Rhombert et al. 2006).

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Recent developments

- Move to a knowledge-based society: Increasing demand by policy makers for robust data about policy interventions (Miles & Cunningham et al. 2005).
- New Public Management movement in the late 1980ies and 1990ies (in the UK): led to creation of additionality concepts.
- Evidence-based policy making: Adapted from the „evidence-based medicine“ movement, this approach suggests that (political) interventions should be based on broad empirical evidence or assessments of their (potential) impact (development in the UK, e.g. Solesbury (2001)).



What can we learn from INNO APPRAISAL?

Insights from QUANTITATIVE analysis of database (142 cases)

1. How important are impact studies for evaluation?
2. What kind of impacts are studied?
3. Are specific concepts / methods linked to the study of impacts?
4. Which quality have impact studies?
5. Do impact studies contribute to the usefulness of evaluations? / What determines if impact assessments are perceived as being useful?
(see also Cunningham presentation on usefulness)

Insights from QUALITATIVE analysis of expert interviews

→ Answers on questions arising from quantitative analysis, e.g. more complex relationships or conditions as well as changes in evaluation practice.



The major dependent variable of the quantitative analysis: Coverage of economic impacts

Inno Appraisal data collection covers:

- 5 different impact dimensions:
economic, social, technological, scientific, environmental
- For each dimension ordinal variables are coded:
„0“ =study does not cover impacts
„1“ =study covers direct impacts /outcomes
„2“ =study covers indirect impact

Part C: Characteristics of the Appraisal (continued from previous page)
(while answering this part please consider the primary policy measure indicated in part B)

C.8.	Did the appraisal look at the following impacts?	
C.8.a.	Scientific	
C.8.b.	Technological	
C.8.c.	Economic	
C.8.d.	Social	- Don't know Yes, but only impact on the participants Yes, on the participants and beyond No
C.8.e.	Environmental	
C.8.f.	Other:	
C.8.g.	Any Comments?	



How important are impact studies for evaluation?

Assumption: We expect the question of impact to be central to evaluations.

RESULTS:

- About 81% (N=115) of the evaluations claim to cover impacts in a wider understanding, 55% (N=78) claim to cover indirect impacts.
 - (Indirect) Impact assessments can be found in 15 out of 19 countries in the database.
- Impact assessments appear to be central and wide-spread across Europe.



How important are impact studies for evaluation? What type of evaluation do we expect to perform impact studies?

Assumptions:

- a) In particular we expect summative evaluations to cover impact more often than formative evaluations (cf. White 2009).*
- b) As structural fund evaluations are commissioned by the EU, we expect them to cover more impact dimensions than evaluations of national programmes.*

RESULTS:

- Assumption a) partly confirmed: Summative evaluations do seldom cover any impact at all, but formative might like summative cover a higher number of impacts.
- Assumption b) supported by data (more on SF in Amanatidou / Garefi presentation).



What kind of impacts are studied? (I)

Assumption: Economic impact is still the most important dimension, because of the expectation that innovation is fostering economic growth (cf ImpLore 2009).

RESULTS:

Economic is most important, followed by social and technological impacts.

	Economic	Social	Scientific	Technological	Environmental
N studies	66	50	29	43	29



What kind of impacts are studied? (II)

On closer inspection, the economic dimension seems to be the most dominant, while other impact dimensions are covered additionally. In sum, only 14 appraisals (10%) are doing impact studies, however without covering the economic dimension.

	Number of impact dimensions covered					
	0	1	2	3	4	5
Appraisal does NOT cover Economic impact	27	7	6	1		
Appraisal covers Economic impact		15	24	26	24	12



Are specific concepts / methods linked to the study of – economic – impacts?

Assumptions: According to the definition, we expect that concepts and methods are linked to economic impact studies, which

- *Try to quantify added value (i.e. cost-benefit analysis; value for money etc.)*
[Click](#)
- *Try to establish a comparison (i.e. additionality, control group approaches, quasi-experimental design, counter-factual approaches)* [Click](#)
- *Try to link the effects to the programme goals (i.e. goal attainment, context analysis).* [Click](#)



Are specific concepts / methods linked to the study of – economic – impacts? (II)

CONCEPTS	N employed	Economic impact	METHODS	N employed	Economic impact
C.7a External consistency	102	0.1167	C.12a Case studies	51	0.1492*
C.7b Internal consistency	110	0.1452	C.12b Network analysis	13	0.0622
C.7c Coherence / Complementarity	79	0.0776	C.12c Econometric analyses	30	0.3892*
C.7d Goal attainment	114	0.2340*	C.12d Descriptive Statistics	106	0.0778
C.7e Outcome/ Output/ Impacts	124	0.2457*	C.12e Input/ Output analyses	36	0.2491*
C.7f Quality of outcomes	62	0.1916*	C.12f Document analysis	64	0.0941
C.7g Value for money	27	0.2522	C.12g Context analysis	91	0.2453*
C.7h Programme implement. efficiency	95	-0.1207	C.12h Before/After Group Compar.	18	0.1798*
C.7i Project implementation efficiency	55	0.3433*	C.12i Control group approaches	24	0.2432*
C.7j Input additionality	56	0.3361*	C.12j Counter-Factual Approach	24	0.1269
C.7k Output additionality	61	0.2912*	C.12k Cost-Benefit Approach	31	0.3446*
C.7l Behavioural Additionality	55	0.0186			
C.7m Policy / Strategy Development	103	0.0044			
C.7n Gender issues	31	0.1290			
C.7o Minority issues	9	0.1771*			

Correlation of concepts / methods with economic impact assessment.

*Indicates statistical significance at the 10% level.

[Click](#)



Are specific concepts / methods linked to the study of – economic – impacts? (III)

RESULTS:

- Almost all assumed relationships can be found in the data at a statistically significant level (except for counter-factual approaches).
- Also some of the methodologically advanced practices (control groups, quasi-experiments) are statistically significantly linked to economic impact studies. This result should however be qualified by the aspect that the number of studies which employ these advanced methods is quite small.
- It is also clear from these data that economic impact analysis is linked to input and output additionality, but not to behavioural additionality (more on BA in Edler / Gök presentation).
- Further relationships found (“outputs / outcomes / impacts”, “project implementation efficiency”) point to the fact, that impact studies in sample cover all types of effects.



Which quality have impact studies?

As impact assessments have come up because of an increasing demand for robust (quantifiable) statements on the effects of policy interventions and in the context of evidence-based policy making, the **expectations towards the studies might be very high.**

At the same time, establishing causal relationships between policy interventions and observed changes poses a **theoretical challenge as well as empirical / methodological problems** with the specification of the control group or counter-factual situation.

Assumptions: Because of this trade-off we might expect that policy makers

a) are not very satisfied with the application of the methods; [Click](#)

b) are not very satisfied with the performed analyses. [Click](#)



Which quality have impact studies? (II)

Quality indicators in Inno Appraisal: Policy makers were asked to assess the quality of the evaluation studies regarding 8 different aspects, using a 5-point Likert scale.

Correlation of use of economic impact assessments with the quality indicators

Quality indicators	Economic impact assessment
Addresses TOR	0.2303*
Appropriate design	0.0700
Choice of methods	-0.1480
Application of qualitative methods	-0.0540
Application of quantitative methods	0.1401
Documentation of sources	-0.0464
Analysis based on data given	-0.0237
Coverage of broader context	0.2676*



Which quality have impact studies? (III)

RESULTS:

Expectation a): Expected link to „choice of methods“ and/or „application of quantitative methods“ does not exist.

→ This means that the choice and application of (quantitative) **methods in impact studies is neither very good nor bad** in the eyes of the policy makers.

Expectation b): Ambiguous results: no correlation to „design“ or „analysis“ but: **Correlation with the „coverage of broader context“.**

→ The latter means that impact assessment is not a mere econometric exercise, but **often used in a contextually sensitive way.**



Do impact studies contribute to the usefulness of evaluations?

Again, as impact assessments have come up because of an increasing demand for robust (quantifiable) statements on the effects of policy interventions and in the context of evidence-based policy making, the **expectations towards the studies might be very high.**

Assumption: Therefore we expect policy makers to regard impact studies as being a useful learning tool.

RESULT:

There is no clear link between economic impact studies and the different aspects of usefulness in the dataset.

This means: Studies that cover impact are not regarded as more useful than studies that do not cover impact.



Questions arising from / not answered in quantitative analysis

1. What purposes are impact studies used for?
2. Given the range of concepts and methods which are according to the data used in economic impact assessments, are there certain „basic“ requirements for impact assessments?
3. Which dimensions of impacts are important?
4. What kind of impact study is the most useful one for policy makers?
5. How important are impact studies for policy-making?
6. Which changes in evaluation practice can be observed?



Qualitative Approach: Expert Interviews

- **Selection of interviewees:** Identification of good practice cases according to Inno Appraisal database. Interview partners were selected from countries with high number of good practice cases: Germany, Austria and UK
- **Response rate:** 9 out of 13 persons contacted (69%)
- **Interview phase:** 20 August to 10 September 2009
- **Characteristics** of the interviewees (10 persons in 9 interviews):
 - Nationality: 6 German, 4 Austrian
 - 4 from ministries, 3 from project agencies, 3 evaluators / researchers
 - Role in the policy cycle (multiple answers possible): 8 Formulation of tenders, 7 Selection of evaluators, 4 Project management, 7 Evaluators
 - Experience with 11 evaluations on average
 - Experience with certain types of evaluations (multiple answers possible): 4 Ex-ante, 5 Interim, 5 Ex-post

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Main aim of evaluation studies compared to main purpose of impact studies

- Almost all experts mention similar purposes/ aims of evaluations and impact studies: Learning and Legitimation.
- But: Several experts point to the fact that **impact studies** are primarily used **for legitimation purposes** and less for learning, while the primary function of evaluation exercises is learning.
- Function is also dependent on type of evaluation as well as target group:
 - In interim/ accompanying studies, learning is more important, in ex-post, legitimation prevails.
 - For high-level policy makers, often legitimation of the policy intervention is most important, whereas for the operational level / project agencies, learning on how to improve the measure is more important.



Conceptual and methodological requirements for economic impact studies

- Multi-Method Approach works best
- Some sort of comparison should take place: **Two types** of studies:
 - Mainly **Qualitative**: Discussing causal relationships and counter-factual situation; Analysing non-quantifiable effects; often part of „classical“ evaluation studies
 - Mainly **Quantitative**: control group approaches, quantifiable effects; normally separate studies, rarely used, because of data availability problem

Challenges:

- Measuring goals/ indirect effects (operationalization and measurement).
- Measuring long-term effects (observation periods too short).
- Establishing a causal link between policy measure and observed effects.



Important Impact dimensions

- Economic Impact assessment often intended, but often not possible (long-term effects, complex environment)
- Other impact dimensions become more important
 - Gender and minority issues in SF Evaluations
 - Behavioural Additionality in Innovation Programmes (e.g. innovation management, risk aversion)
 - Sustainability
 - Customer needs (health sector)
 - Structural / Regional development



What kind of impact study is the most useful one for policy makers?

Generally:

- Timing / „Window of opportunity“: Formative interim / accompanying studies have a higher chance of good timing.
- On-going discussion between commissioners, evaluators, and stakeholders.
- Presentation of milestones, interim results of evaluation.
- Identification of/ focus on central goals of measure: What can be really an effect of R&D funding?

For policy level / upper hierarchies: Simple and short statements are important, at best quantifiable results; Executive summary.

For the operational level/ implementation: A sound analysis is important, incl. broad documentation. Recommendations need to be tailored to what is in the power of the policy makers, i.e. the instruments/ design-elements of a programme.



Influence of impact studies in decision-making processes

If at all, the direct consequences are minor: Re-design, prolongation.

Generally, evaluation as part of efforts towards more transparency in policy-making can help to improve policy formulation. Policy makers have a motivation to perform well, for this reason policy learning takes place.

Of course, policy makers have to follow other rationales, too. Most important is the interest accommodation process, where evaluation results can serve as arguments. In particular, impact studies can legitimize budget decisions.

At EU-level, evaluations seem to be important (in the sense of evidence-based policy making).



Observed changes in evaluation practice and culture during the last couple of years

- Germany and Austria: improved evaluation culture, trend towards professionalisation, standardisation: policy makers better know what to expect e.g. what is possible in impact studies
- More accompanying/ interim research → Evaluation as learning tool. Trend towards quantitative impact assessments rather small in numbers.
- More openness towards new methods (e.g. evaluation econometrics).
- Internationalisation: More international referees, methods like scoring systems used in the EU are applied

At the same time:

- Evaluation fatigue: Are the number and scope of evaluations really necessary? And: More critical perception of focus on economic impacts.



Summary of results

- Impact assessment is a **central function of evaluation studies**.
 - A large number of studies across Europe claims to do impact assessment, currently most important are economic impacts.
 - Most of these impact assessments are qualitative and part of broader evaluation studies.
 - There are **only few quantitative** impact assessments
- **Major challenges** are
 - Direct attribution of effects to the concrete programme or project,
 - measurement of effects (not everything is quantifiable, in particular indirect effects, time lag)
 - data availability
 - Programmes have too complex sets of (economic) goals.



Summary of results (II)

- Impact Assessment serves **learning** and, perhaps even more, **legitimation** purposes.
- After years of impact assessment – still strong(er) discussion on how innovation programmes really can contribute to *economic* growth.
- **Other impact** dimensions (social, environmental) are becoming more important
- **Usefulness** (in terms of adjusting policy) of impact assessments:
 - Timing and communication / presentation are important
 - Different for audience / target group (i.e. is legitimation or learning more important?)



Ways to make impact studies more meaningful

- 1) More awareness of the different types of effects (outputs, outcomes, impact).
- 2) Clear definition, which kind of impacts should be analysed (normally, complex set of programme goals requires focussing on what can really be an impact of the intervention).
- 3) Awareness of methodological limitations.
- 4) Multi-Method-Approach: combination of quantitative and qualitative approaches
- 5) Discussion between evaluators, policy-makers, and stakeholders; i.e. transparency for the whole evaluation process in order to realize learning and to cope with methodological challenges.
- 6) Two types of recommendations: Those designed for implementation by the programme owners / managers and those directed to higher levels.



Thank you very much!

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