MLE on Evaluation of Business R&D Grant Schemes under the Horizon 2020 Policy Support Facility. Learning experience and reflections

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What is this MLE about?

• Hearing how different countries are dealing with evaluation of R&D public policies
• Pointing out topics of common interest to be addressed
• Getting the input from experts
• Sharing national approaches
• Discovering common aspects and differences among countries
• Learning on application of methodologies
• Building networks
Why is this issue relevant for evaluation of R&D public policy?

• Data is the raw material for any evaluation
• The amount of available datasets in the public administration has been progressively increasing: administrative data, surveys...
• But, traditional data sources have proved to be insufficient for answering evaluation questions
• Focus has moved to alternative data and initiatives to merge existing databases
• This approach entails challenges in terms of methodology and administrative or legal barriers
Big data/Norway

Stakeholders´ perspective
- Researchers
- Policy makers (Ministry)
- Agency

Big data for policy making
- In other areas (Panda, Telnor)
- In R&D (REITER project, OECD; Dataset on Norwegian R&D Grants Innovation system)

Main messages
- **Data linking** is a key element for evaluation of public policies, but it requires coordination among units, agencies, ministries: Norway is a very good example (448 support schemes; 16 agencies)
- **Confidentiality** is an issue of special concern: merging administrative data and surveys from Statistic Offices
- How to exploit **sleeping data sources**: qualitative info in reports, websites. New methodologies (text-mining; web scraping).
- **Quantitative data**, even if they are big, need to be complemented with **qualitative info**.
- **Big data could be expensive data**: added value for policy and public welfare must be proved
Towards a better understanding of innovation journeys of beneficiaries of R&D and innovation grants

Why is this issue relevant for evaluation of R&D public policy?

- Evaluation is traditionally focused on input and output additionality, behavior is usually addressed as a secondary issue.
- This approach has been proved to be insufficient: Does the public intervention change the behavior of population in a persistent way?
- BC is difficult to define and measure: a common framework would make easier to evaluate it.
- Context is always a key element in evaluation, but regarding BC is even more relevant: we evaluate a programme within a concrete context, where people take decisions.
- Sharing practical cases is the right way to learn about behavioral additionality.
Behavourial change (BC)/Sweden

**Swedish approach**
- Vinnovas’ SME portfolio of programmes
- Vinnova and Almi: growth in SME
- Swedish Incubator Programme

**Main messages**
- **BC is defined by objectives of the program**
- Effects of R&D policies in behaviour are highly dependent on other aspects: business excellence
- **Reference framework:** direct effects, spillover effects and system effects
- Increasing role of “soft measures” in R&D instruments portfolio: BC is crucial
- **Methodologies:** qualitative approaches (case studies; analysis of open questions), network analysis.

**OCDE input**
- OCDE taxonomy on behaviour additionality: fostering international initiatives
Mixed methods/UK

Combining Mixed Approaches to Evaluations

Why is this issue relevant for evaluation of R&D public policy?

• Traditionally, quantitative methods have been seen as more robust than qualitative approaches: *What is the effect of a program?*
• Complex econometric technics have been developed but still they are highly dependent on extensive micro data and long-time series
• Big data and merging of data sets are useful tools, but usually confidentiality rules prevent evaluators from using them
• Different evaluation questions (how and why a program generate change) require different methods
• As much as mixed methods are used in evaluation of public programs best practices will be shared and common methodologies will be applied
Mixed methods/UK

UK approach

Institutions involved in evaluation
- Innovate UK, UKRI
- Economics Research Center
- What Works Centers (WWC)
- Innovation Growth Lab

Evaluation of specific programmes
- Catapults: Digital; High Value Manufacturing
- Bio-medical Catalyst
- Evaluation of the Smart programme (SMEs)
- Evaluation of R&D tax credits

Main messages
- **Common frameworks for evaluation** are welcome, but they should be taken as a reference, not as fixed guidelines (Catapult evaluation framework, IUK, WWC guide)
- **Limitations of quantitative approaches**: control group, spillovers, time to market
- **Looking at the process**: linking “WHAT” with “HOW” and “WHY” (logic model, evaluation based on the theory, systemic approach, agent based modelling)
- From **attribution analysis to contribution analysis**: “...mutually re-enforcing factors required to generate outcomes”
- **Triangulation** of quantitative and qualitative results: learning from evaluations
- **Building capacity** in public administration: WWC workshops
Conclusions

- Big data
- Behavioural change
- Mixed methods

- Highly related issues
- Addressing evaluation challenges from new approaches
- By sharing experiences we are building a common framework for further steps