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LIMITE

ERAC

WORKING PAPER

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MEETING DOCUMENT

From:	ERAC Secretariat
To:	ERAC (European Research Area and Innovation Committee)
Subject:	PowerPoint presentation : "Ad-hoc ERAC Working Group on Measuring the Impact of EU Framework Programmes for Research and Innovation at National Level"

Delegations will find attached the PowerPoint presentation "Ad-hoc ERAC Working Group on Measuring the Impact of EU Framework Programmes for Research and Innovation at National Level" given by the Chair of the ERAC Ad-hoc Working Group concerning the item 7.3.a of the ERAC plenary agenda of 16-17/03/2017.

**ad-hoc ERAC Working Group on
Measuring the Impact of EU Framework
Programmes for Research and Innovation at
National Level**

**Tiago Santos Pereira
Chair of the WG**

ERAC Plenary Meeting
17 March 2017

Mandate of the WG

- Develop a harmonised impact evaluation template
 - *core set* of evaluation **questions**
 - *common* evaluation **methodologies**
 - *common* **indicators**
 - available *common* **datasets** and available EU and national **databases** to assess the socio-economic impacts of EU Framework Programmes at national level

Development of template Challenges

- **Distinct expectations on contribution of template**
 - WG should go beyond basic analyses already developed at national level
 - Considering a basic template, ensuring comparability, and additional, in depth modules
 - Basic template privileges no additional data collection – reducing survey burden
 - Need to consider MS objectives regarding the impact of participation in FPs
- **Difficulty of attribution of impacts**
 - Long term and structural effects
 - Considering different instruments / objectives
 - Identifying appropriate counterfactuals
 - Attributing impacts (source and outcome)

National Impact of
Participation in EU FPs

Participation
Structure

Structuring
Impacts

Scientific
Impacts

Innovation
Impacts

Economic
Impacts

Societal
Impacts

National Impact of
Participation in EU FPs

Participation
Structure

Structuring
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Scientific
Impacts

Innovation
Impacts

Economic
Impacts

Societal
Impacts

Opportunities

R&I System
Development
(Organisations)

Scientific
Excellence

Input and
Output
Additionality

Economic
benefits at
firm-level

Tackling
societal
challenges

Collaboration

ERA Priorities
(Policy)

Methods
Infrastructure
access

Behavioural
Additionality

Economic
spillovers
Industrial
dynamics

Science-policy-
society
interface

National Impact of
Participation in EU FPs

Participation
Structure

Structuring
Impacts

Scientific
Impacts

Innovation
Impacts

Economic
Impacts

Societal
Impacts

Baseline analysis of impact

Questions / Methodologies / Indicators / Data

Module

Additional
questions

Module

Additional
questions

Module

Additional
questions

Module

Additional
questions

Module

Additional
questions

Module

Additional
questions

Some examples

Participation Structure

Context

Questions	Methodologies	Indicators	Databases
Has the success of participation improved vs. earlier FPs?	Statistical analysis	<ul style="list-style-type: none"> - Success rates of application - Share of participations, coordinations, funding - across instruments and organization types 	Programme data (e.g. eCorda)
Do European networks build on existing links? Do they build new international links?	Network analysis	<ul style="list-style-type: none"> - Cooperation links 	Programme data (e.g. eCorda)
Does the regional distribution of participants reflect national distribution?	Statistical analysis	<ul style="list-style-type: none"> - Regional distribution of participations - Regional cooperation links 	Programme data (e.g. eCorda) National STI statistics

Structuring Impacts

Questions	Methodologies	Indicators	Databases
Has participation in the FPs contributed to changing organisational culture and practices?	Survey	<ul style="list-style-type: none"> - Growth in social and cultural innovation - Innovation in business models 	
Has participation in the FPs strengthened national R&I systems vis-à-vis ERA priorities?	<ul style="list-style-type: none"> Case study Interviews Desk research 	<ul style="list-style-type: none"> - ERA Roadmap Indicators 	ERA progress report Eurostat
Has participation in the FPs contributed to policy learning?	<ul style="list-style-type: none"> Case study Interviews Desk research 	<ul style="list-style-type: none"> - Changes in/new national policy initiatives related to EU FPs 	-

Scientific Impact

Questions	Methodologies	Indicators	Databases
Is participation in FPs resulting in excellent science?	Scientometric analysis Econometric analysis	<ul style="list-style-type: none"> - Proportion of scientific articles published in high-impact journals - Proportion of scientific articles in top 10% papers - Academic output in terms of papers, journals and books published 	WoS, Scopus eCorda Data
Is participation allowing to access otherwise limited research resources (e.g. infrastructures)?	Survey	<ul style="list-style-type: none"> - Motivation to participate 	-
Is participation enhancing international collaboration?	Scientometric analysis Econometric analysis	<ul style="list-style-type: none"> - Proportion of scientific articles in (high-quality) international collaborations 	WoS, Scopus eCorda Data

Innovation Impacts

Questions	Methodologies	Indicators	Databases
Has participation in FPs attracted additional R&D investment?	Econometric analysis	<ul style="list-style-type: none"> - BERD data - R&I related FDI 	National R&D statistics Eurostat
Has participation in the FPs contributed to enhance the research capacity, knowledge and skills of businesses and organisations?	Econometric analysis Scientometric analysis	<ul style="list-style-type: none"> - (Comparative) Number of patent, licence applications and the proportion of patents, licences issued 	Patents, license database
Has participation had networking effects, strengthening cooperation between universities, research institutions and firms?	Econometric analysis Survey	<ul style="list-style-type: none"> - Strategic agreements between public and private organisations - Cooperation between public and private orgs. - Sources of knowledge in innovation 	Institutional data CIS data

Economic Impacts

Questions	Methodologies	Indicators	Databases
Contributing toward wealth creation and economic prosperity?	Econometric analysis	<ul style="list-style-type: none"> - Growth in revenue - Number of high-skilled employment opportunities created - Number of new knowledge-intense companies 	eCorda National registries Survey data
Enhanced the efficiency, performance and sustainability of businesses?	Econometric analysis	<ul style="list-style-type: none"> - Proportion of new businesses established with innovative business model 	National statistics Secondary data
Has participation generated spillovers?	Economic modelling	Economic statistics STI statistics	Eurostat OECD

Societal Impacts

Questions	Methodologies	Indicators	Databases
Has participation contributed to tackling societal challenges?	Scientometric analysis Survey	<ul style="list-style-type: none"> - Growth in innovations tackling societal challenges - Proportion of scientific articles published in cross-disciplinary journals 	<ul style="list-style-type: none"> Patent database Publications database
Contributed to increasing public awareness and understanding of science, economic and societal issues?	Scientometric analysis Survey Statistical analysis	<ul style="list-style-type: none"> - Project outputs published in open-access - Number of citizen science projects - Degree of public interest in S&T issues - Alternative (Altmetric) data 	<ul style="list-style-type: none"> eCorda Project outputs Eurobarometer data
Contributed to more evidence-based policy-making?	Case studies Survey	<ul style="list-style-type: none"> - Evidence and advice submitted to policymaking organisations - Number of formal procedures for citizens involvement 	

Structure of WG Report

- Executive Summary
- Introduction and objectives
- Policy context of 'impact' and methodological issues
- Recommendations for MS and EC
 - MS national objectives and participation
 - EC role in data harmonization and distribution
- Annex - Template structure
- Context of participation
 - Presentation of national R&I system
 - Participation Structure
- Impact analysis
(presentation of questions / methodologies / indicators / data)
 - Structuring Impacts
 - Scientific Impacts
 - Innovation Impacts
 - Economic Impacts
 - Societal Impacts

Calendar

- Next WG meeting – May 3
- Preliminary report in mid May (ERAC SB Meeting)
- Final report presented to the ERAC Plenary in June