

SIPER: Science & Innovation Policy Evaluations Repository (WP21)

Participants:
UniMan, IFRIS

SIPER: Objectives

- To develop a central source of knowledge on research and innovation policy evaluations, comprising:
 - Repository of existing evaluation reports (pdf) (focused on EU MS and OECD countries)
 - Searchable database containing metadata accessible to scholars or policymakers
 - Articulated with the OECD-World Bank innovation policy platform (IPP, <https://www.innovationpolicyplatform.org>).
 - Builds on previous INNO-Appraisal study
 - Incorporates evaluation literature base developed in NESTA study on evidence of policy impact
 - Will allow range of analyses of evaluation characteristics
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Components of the database

Back end:

- Evaluation repository (SIPER Basic):
 - Contains pdfs of available evaluation reports and associated documents
- Characterisation of evaluations including FC and PL (policy measure characterisation):
 - Based on standardised input template by team
- Workflow management system:
 - (assigning evaluations to users, adding users, checking data integrity, adding policy-maker details, etc.)

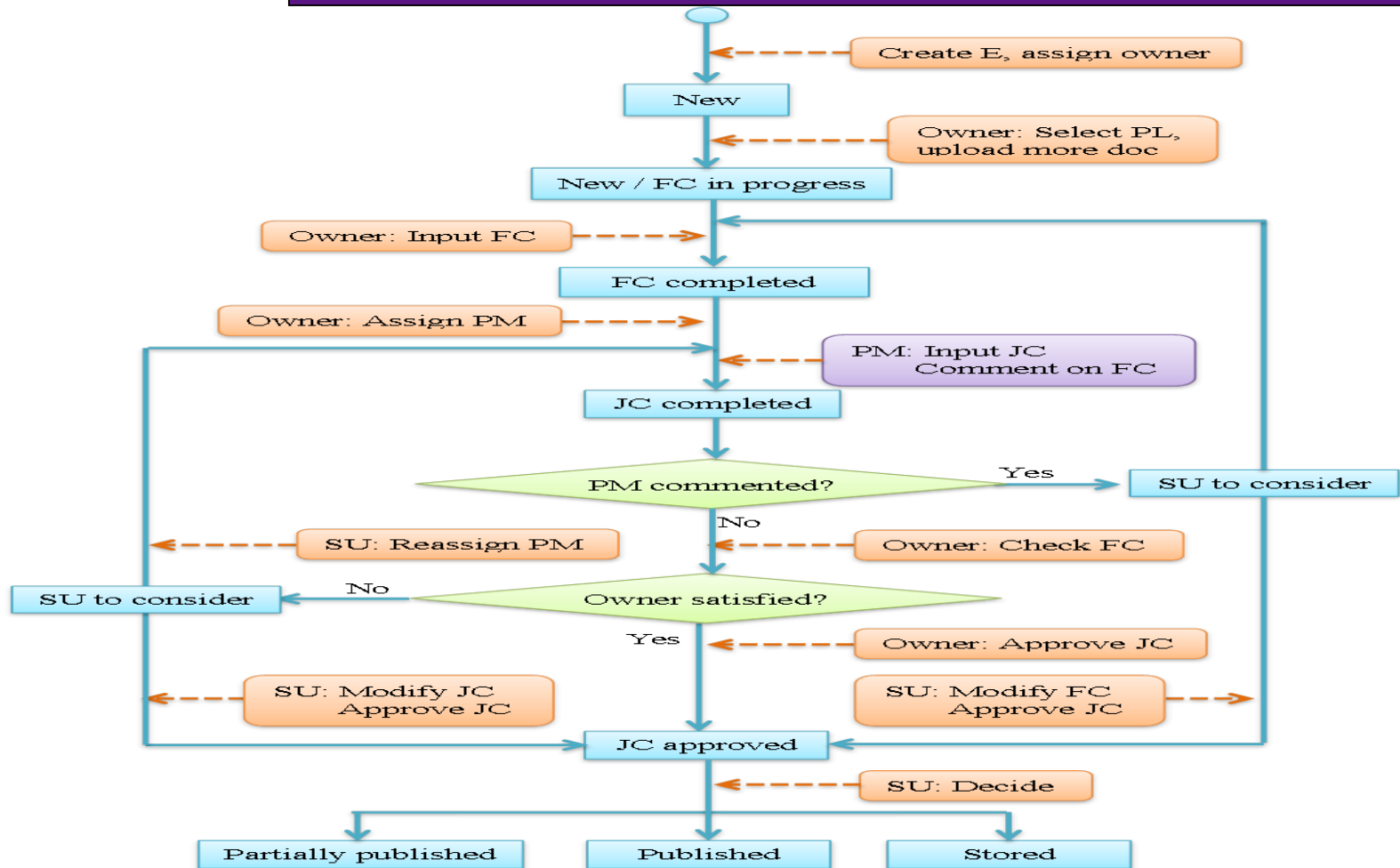
Front end:

- Private front-end database:
 - allows policy-makers to input data for JC (password controlled)
 - Public front-end database:
 - external users can search evaluations (using variety of filters) and download reports (not password controlled)
 - Public frontend static information:
 - (project activities, news, publications, etc.)
-

Data Components, Users and Status

- Data Components:
 - FC: factual characterisations of evaluations (methods, timings, topics, etc.)
 - JC: judgemental characterisations of evaluation (use, quality, dissemination, etc.)
 - PL: factual characteristics of the related policy measure (target, modality, objectives – see above)
 - Users:
 - SU: super-user
 - PA: project team member, limited privileges, input FC
 - PM: policy-makers who will input JC data
 - PU: public users
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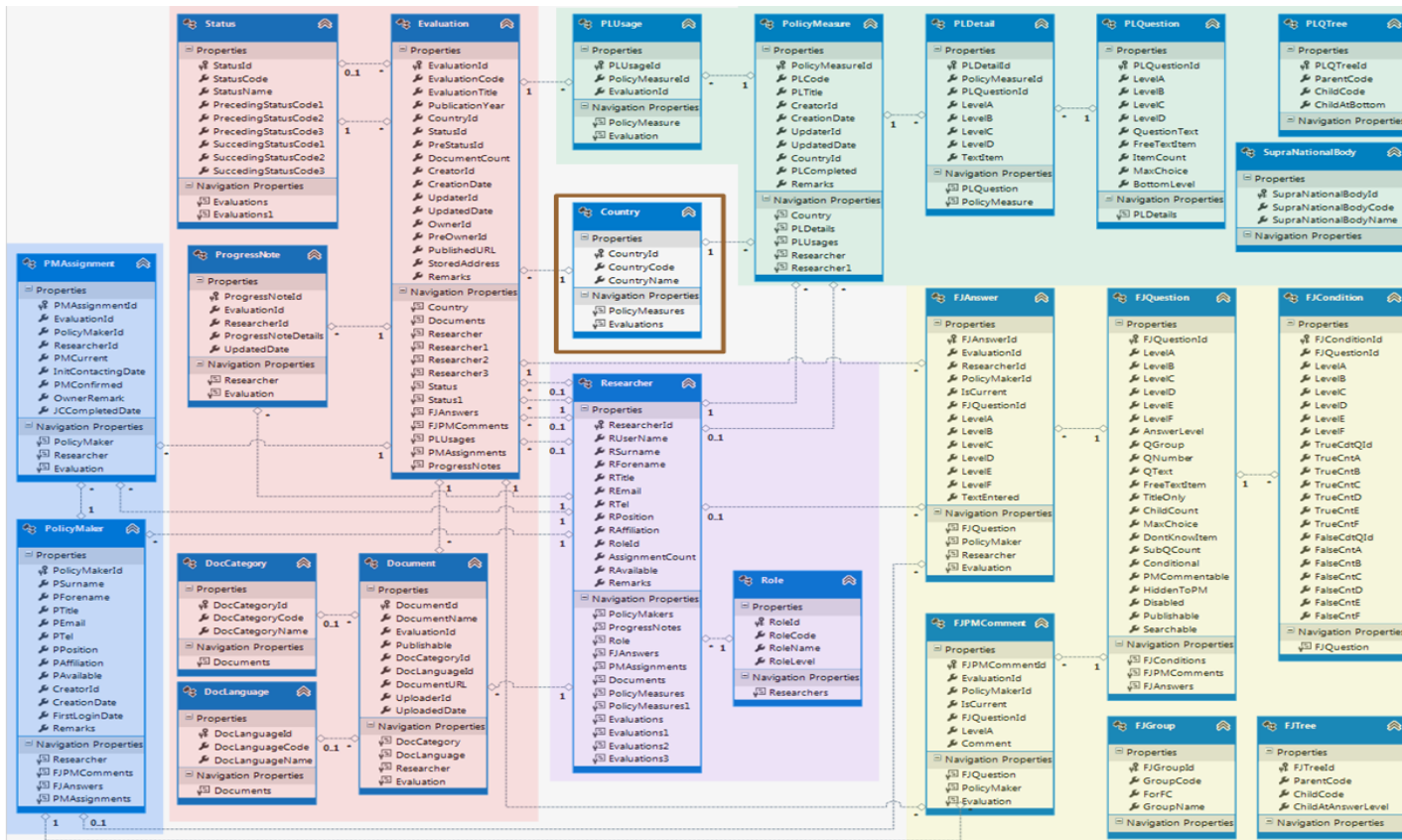
Data input process



Data input: Actions and statuses

S. before action	Action	Actor	S. after action
New	Edit title/country/documents	Owner	New
New	Select PL	Owner	Basic data completed
Basic data completed	Edit FC data (c)	Owner	FC completed
FC completed	Assign / contact PM (d), (e)	Owner	FC completed
FC completed	Edit JC data. No comment added for FC data.	PM	JC completed
FC completed	Edit JC data. Comment added for FC data	PM	SU to consider
JC completed	Check JC data and satisfied	Owner	JC approved
JC completed	Check JC data and not satisfied	Owner	SU to consider
SU to consider (with PM's comment)	Check PM's comment on FC, no change needed for FC	SU	JC approved
SU to consider (with PM's comment)	Check PM's comment on FC, make manual change on FC.	SU	JC approved
SU to consider (no PM's comment)	Check owner's email for reason, make manual change on JC.	SU	JC approved
SU to consider (no PM's comment)	Check owner's email for reason, decide to redo JC.	SU	FC completed

SIPER Data schema



SIPER Data Schema V7

Colour code:

Basic evaluation data

PL data

FCJC data

Researcher data

Policy maker data

PM authentication data

Overlapping data

Note on ambiguous relationship name:

[Evaluation].Status and [Status].Evaluation:
[Evaluation].Status1 and [Status].Evaluation1:

(Current) Status
PreStatus

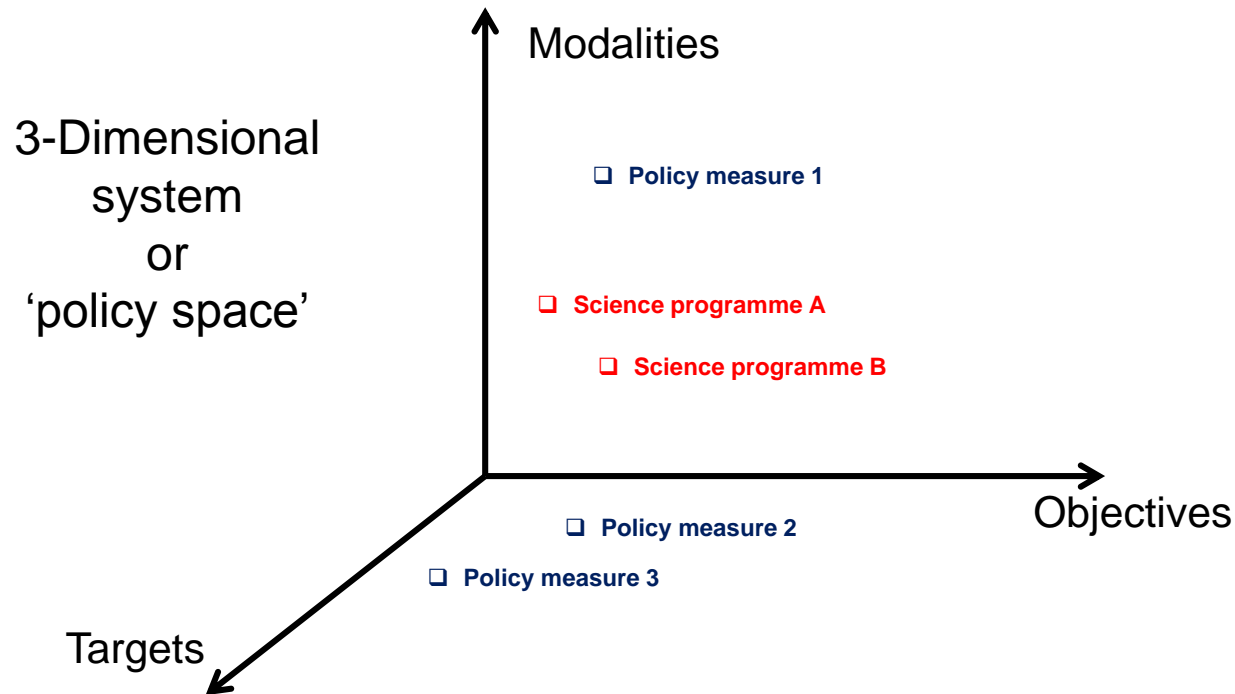
[Evaluation].Researcher and [Researcher].Evaluation:
[Evaluation].Researcher1 and [Researcher].Evaluation1:
[Evaluation].Researcher2 and [Researcher].Evaluation2:
[Evaluation].Researcher3 and [Researcher].Evaluation3:

Creator
Owner
PreOwner
Updater

[PolicyMeasure].Researcher and [Researcher].PolicyMeasure:
[PolicyMeasure].Researcher1 and [Researcher].PolicyMeasure1:

Creator
Updater

Science and Innovation Policy Measure Categorisation



Science and Innovation Policy Measure

Categorisation- dimensions 1&2

1. Modalities (How support is provided)

1. Direct financial support: grants, loans, guarantees, contracts, etc.
2. Direct financial support: scholarships, fellowships, etc.
3. Direct financial support: (non-project specific) institutional block grants
4. Indirect financial support: tax & fiscal incentives (e.g. R&D credits)
5. (Indirect financial support – norms, standards, regulations) NOT USED
6. Infrastructure support (e.g. provision of access to and construction/upgrading of research infrastructure)
7. Non-financial support (e.g. training ,coordination and advisory/information support/provision)
8. Prizes and awards (ex-ante inducement, ex-post performance recognition, etc.)

2. Targets (Recipient of the support)

1. Individuals (researcher, student, manager, entrepreneur, investor, etc.)
 2. Universities (including sub-departments and institutions)
 3. Research Organisations (including the spectrum from public (PROs) to private (RTOs))
 4. Public organisations (governmental or quasi-governmental agencies, policy making organisations – not directly involved in R&D)
 5. Intermediaries (such as science parks, business incubators, technology parks, knowledge brokers, TTOs, etc.)
 6. Firms (SMEs focused)
 7. Firms (no size-specific focus)
 8. Other funding organisations (NGOs, NPIs, Not-for-Profit, Charities...)
 9. Specific industrial sector targeted
 10. Specific S&T field targeted
-

Science and Innovation Policy Measure

Categorisation- dimension 3

3. Policy objectives (Why the support is provided)

1. Enhancement of education and initial/further training
2. Facilitating personnel mobility (including career enhancement)
3. Internationalisation of RDTI activities
4. Awareness raising and promotion of public acceptance
5. Strengthening/improving research excellence, relevance and management practices
6. Improving absorptive capabilities and capacity
7. Supporting collaborative interactions for the production of new knowledge (including project focused approaches, innovation vouchers, etc.)
8. Supporting broader (multiple) interactions (e.g. through clusters or networks)
9. Supporting the protection of IP
10. Mobilising additional (non-public) financing for innovation (e.g. support of business angels, VCTs, equity schemes, etc.)
11. Stimulation of additional RDTI activity (e.g. increasing R&D expenditures)
12. Strengthening the quality of RDTI activities (promotion of excellence)
13. Creating new RDTI capacity (e.g. new organisations, start-ups, technology-based companies, etc.)
14. Diffusion of innovation (including creation or exploitation of new markets, public procurement of innovation)

Evaluation (Factual) Characterisation - FC

- Basic characteristics:
 - Who (internal, external..),
 - timing (interim, ex post...),
 - purpose (summative, formative...),
 - refers to rationale?
- Topics covered:
 - Evidence provided on (goals, design, uptake, mobility, impacts, additionality, collaboration, VFM...),
 - types of impacts.
- Evaluation design:
 - Design approach (experimental..., control groups...),
 - use of benchmarking,
 - use of indicators.
- Data collection methods used
 - (Surveys, interviews, peer reviews, site visits...)
 - Targets (participants, stakeholders...)
- Data analysis methods used:
 - (Case studies, econometrics, ROI, bibliometrics...)
- Quality issues:
 - Referred to programme/evaluation objectives?,
 - reflection on evaluation consistency,
 - appropriate use of methods,
 - appropriate recommendations.

Evaluation (Judgemental) Characterisation - JC

- Dissemination:
 - Date published
 - Availability (on-line...),
 - conditional?,
 - dedicated budget?,
 - prompted by?
- Quality issues:
 - policy-maker role,
 - referred to programme/evaluation objectives?,
 - reflection on evaluation consistency,
 - appropriate use of methods,
 - appropriate recommendations.
- Use of evaluation:
 - recommendations present?,
 - intended use of evaluation,
 - actions arising from evaluation,
 - reasons for no action,
 - principal intended users and involvement, I
 - impact on understanding (PM and stakeholders)

The Search Functionality

Three broad search/filter functions:

- Free text searching – Box1:
 - Search by entering free text, will search against the title of the evaluation or the related policy measure
 - Filter by related policy measure/instrument characteristics – Box 2
 - Filter by evaluation characteristics – Box 3
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Search functionality



Science and Innovation Policy Evaluation Repository (SIPER)



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Overview

Help

Evaluation title (sorting)	Country (sorting)
A look into the Black Box What difference do IWT R&D grants make for their clients?	BE
A Policy Theory Evaluation of the Dutch SME and Entrepreneurship Policy Program between 18	
A Public Good - PhD Education in Denmark	
A Review of Business–University Collaboration	
A review of mentoring literature and best practice	UK
A Review of National Training Funds	Across countries
A structuralist assessment of technology policies: Taking Schumpeter seriously on policy	Canada

Showing results xx of xx...

1

Box 1: Free text search

Box 2: Filter by policy measure characteristics

Box 3: Filter by evaluation characteristics

Search

Enter free text here...

☒ include full-text of evaluation reports

Search

Filter by related policy measure

(dropdown lists of checkboxes)

- > Country
- > Target group
- > Objective
- > Modality

Filter by evaluation characteristics

(dropdown lists of checkboxes)

- > Country
- > Year of first publication
- > Other characteristics of evaluations

Example search: Target/Country options

Repository

	Country (sorting)
MT R&D grants	BE
nd	
2 and 2003	NL
	DK
	UK
tice	UK
	Across countries
es: Taking	Canada

xx of xx...

3 4 5 ... >

Search

Enter free text here...

☒ include full-text of evaluation reports

Search

Filter by related policy measure

(dropdown lists of checkboxes)

> Country

v Target group

☐ Individual

☐ research group

☐ University

☐ SME

☐ Firms

☐ public research organisation

☐ other public organisations

☐ third sector

> Objective

> Modality

Filter by evaluation characteristics

(dropdown lists of checkboxes)

v Country

☐ Afghanistan

☐ Albania

☐ Algeria

☐ Andorra

☐ ...

> Year of first publication

> Other characteristics of evaluations

Example search: Target/country selected

repository

about

publications

contact

Search results for xxxxx...

Evaluation title (sorting)	Country (sorting)
A look into the Black Box What difference do IWT R&D grants make for their clients?	BE
A Policy Theory Evaluation of the Dutch SME and Entrepreneurship Policy Program between 1982 and 2003	NL
A Public Good - PhD Education in Denmark	DK
A Review of Business–University Collaboration	UK
A review of mentoring literature and best practice	UK
A Review of National Training Funds	Across countries
A structuralist assessment of technology policies: Taking Schumpeter seriously on policy	Canada

Showing results xx of xx...

1 2 3 4 5 ... >

Search

☒ include full-text of evaluation reports

Search

Filter by related policy measure

(dropdown lists of checkboxes)

> Country

v Target group

✓ Individual

✓ Research group

> Objective

> Modality

Filter by evaluation characteristics

(dropdown lists of checkboxes)

v Country

✓ UK

✓ Germany

> Year of first publication

> Other characteristics of evaluations

Evaluation details...

Details of evaluation xxxxxx

Main Report (French)

DOWNLOAD 

Summary Report (English)

DOWNLOAD 

Terms of Reference (French)

DOWNLOAD 

Evaluation title			
<u>Evaluator</u>	<u>Timing of the evaluation</u>	<u>Purpose of the evaluation</u>	<u>Type(s) of design approach</u>
<u>Evaluation topics covered</u>			
Appropriateness of goals			✓
Appropriateness of design/modality			x
Coherence/complementarity			x
Goal attainment/effectiveness			✓
Outputs			✓
<u>Data collection methods</u>			
Existing databases and monitoring data			✓
Surveys			✓
Interviews			✓
Focus groups/workshops/meetings			x
Peer reviews (including stakeholder reviews)			✓
<u>Data analysis methods/approaches</u>			
Case study analysis			x
Network analysis			✓
Econometric analysis			✓
Descriptive statistics			x
Input/output analysis			✓

Current situation

Steps completed:

- Overall features of new database defined
- Portal enabling distant access designed and developed jointly between MIoIR and UoM IT Services
- Preliminary overall template for metadata defined. Includes:
 - ‘Factual characterisation’ of evaluations (descriptive elements) by team members,
 - ‘Judgemental characterisation’ of evaluations (impacts and effects) by relevant policy makers and
 - typology of support instruments – based on 3 dimensions:
 - “how” (modality/ies of support);
 - “who” (the target(s) of support);
 - “why” (the policy problem(s) addressed).

Ongoing/Next steps

Ongoing activities:

- Template under preliminary testing on sample of evaluation reports to assess feasibility
- Repository available for uploading of evaluation report pdfs – due to commence
- IT Services constructing characterisation ‘front end’ for data input

Next steps/challenges:

- Organisation of expert characterisation (internal to define detailed manual enabling future enlargement to external experts);
- Organisation of policy analysis of evaluations (requires specific development of the portal to allow controlled external access);
- Definition of collection procedures for existing evaluation reports and identification of key policymakers/stakeholders associated with each report

Immediate aim:

- To open limited version of repository by mid-2015 for external testing and validation, then to progressively enlarge it with new sets of evaluation reports

Policy-maker Coordination Actions

Discussions with OECD and WB colleagues concerning:

- Development of characterisation attributes
- Development of a typology of science and innovation support measures/programmes
- Potential convergence with WB/OECD Innovation Policy Platform (IPP)

Further discussions will cover:

- accessing evaluation reports undertaken by/known to OECD to add to the repository
 - utilising OECD contacts with policy makers to identify further evaluation reports
 - utilising OECD staff to pilot characterisation template
 - utilising European Commission contacts to access evaluation reports undertaken by/known to Commission
 - arranging meeting with WB & OECD to discuss future developments and shared activities
 - Utilising contacts with national/regional policymakers/evaluators to access additional evaluations
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Questions?

