**Leading education
and social research**

Institute of Education
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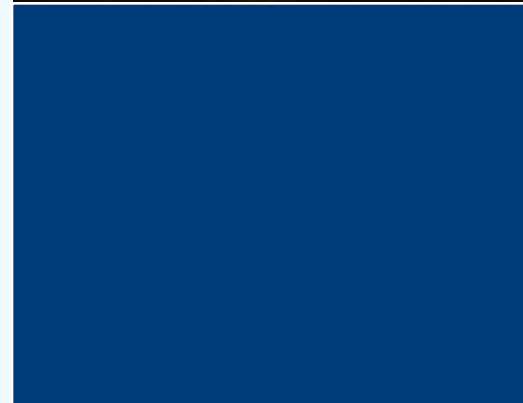# Workshop on the method for policy support in universities

PARI and SciTePP Workshop
University of Tokyo

16th March 2009

David Gough

The EPPI-Centre is part of the Social Science Research Unit at the Institute of Education, University of London

Evidence for Policy and Practice Information and Co-ordinating (EPPI) Centre, Social Science Research Unit (SSRU)

Conducting reviews since 1993
In health promotion,
education, social care, crime,
transport, work and pensions

Support and tools for review groups:

Education (25 groups, 70+ reviews),
criminology, employment,
speech and language, social care

EPPI-Reviewer software

Formal links
with Cochrane
and Campbell
Collaborations

Methodological work, e.g.
Methods for Research Synthesis Node of
the ESRC National Centre
for Research Methods

ESRC National Centre for
Research Methods

E·S·R·C
ECONOMIC
& SOCIAL
RESEARCH
COUNCIL

On-line libraries
of research evidence

Short courses and
Masters course
in evidence for
public policy and practice

Content

1. Systematic reviews (SRs)
2. SRs uses
3. Policy support
4. Other benefits for universities
5. EIPP politics and democracy

1. Systematic reviews

- What do we know from ***all relevant*** research

- Individual studies fallible (design, execution, random error, context/focus)

- Sub samples of studies may bias findings

- Nature of expert summaries – analytic skills, experience and insight but not explicit boundaries and perspective

So need some method of review

What is a systematic review?

Formal accountable method for bringing together what we know – accessible and understandable and explicit about how framed and how executed.

- **Systematic**: 'done or acting according to a fixed plan or system; methodical'

- **Review**: 'a critical appraisal of a book, play, or other work' (OED)

A piece of research just like primary research

What questions to review?

- Reviews often for 'what works' impact questions in health reviewing randomized controlled trials

- But can apply to all research questions and thus all primary research designs

- From quantitative experimental (statistical empirical meta analysis) to meta ethnography (conceptual synthesis)

The common stages of a systematic review

Form review team (involve 'users')

↓

Formulate review question, conceptual framework and inclusion criteria (develop 'protocol')

↓

Search for and identify relevant studies

↓

Describe studies

↓

Assess study quality (and relevance)

↓

Synthesise findings

↓

Communicate and engage

↓

Map

Synthesis

Examples

- What research has been undertaken on TA in nano technology? – systematic *map* of various aspects of studies to date

- What is the relative effect of a medicine on disease survival rates? – *statistical meta synthesis* of RCTs

- How do government officers take up new social polices – *conceptual synthesis* of qualitative process studies of social policy innovation

Mixed methods: barriers to, and facilitators of, fruit and veg intake amongst children aged 4 to 10 years?

MAPPING
(193 studies in 272 reports)

Trials (N=33)
1. Application of inclusion criteria
2. Quality assessment
3. Data extraction
4. Statistical meta-analysis

'Views' studies (N=8)
1. Application of inclusion criteria
2. Quality assessment
3. Data extraction
4. Thematic synthesis

Trials and 'views'
Mixed methods synthesis

Different types of knowledge for policy and practice decisions

Knowledge source	Knowledge gained by/from…
Research	Doing research and producing research findings
Practitioners	'Doing'
Policy community	The wider policy and political context
Service users	Experience of, and reflection on, service provision
Organisations	Regulations and procedures

Mixed knowledge synthesis

Knowledge Review question
e.g. What is known about the process and outcome of the recovery model in parental mental health?*
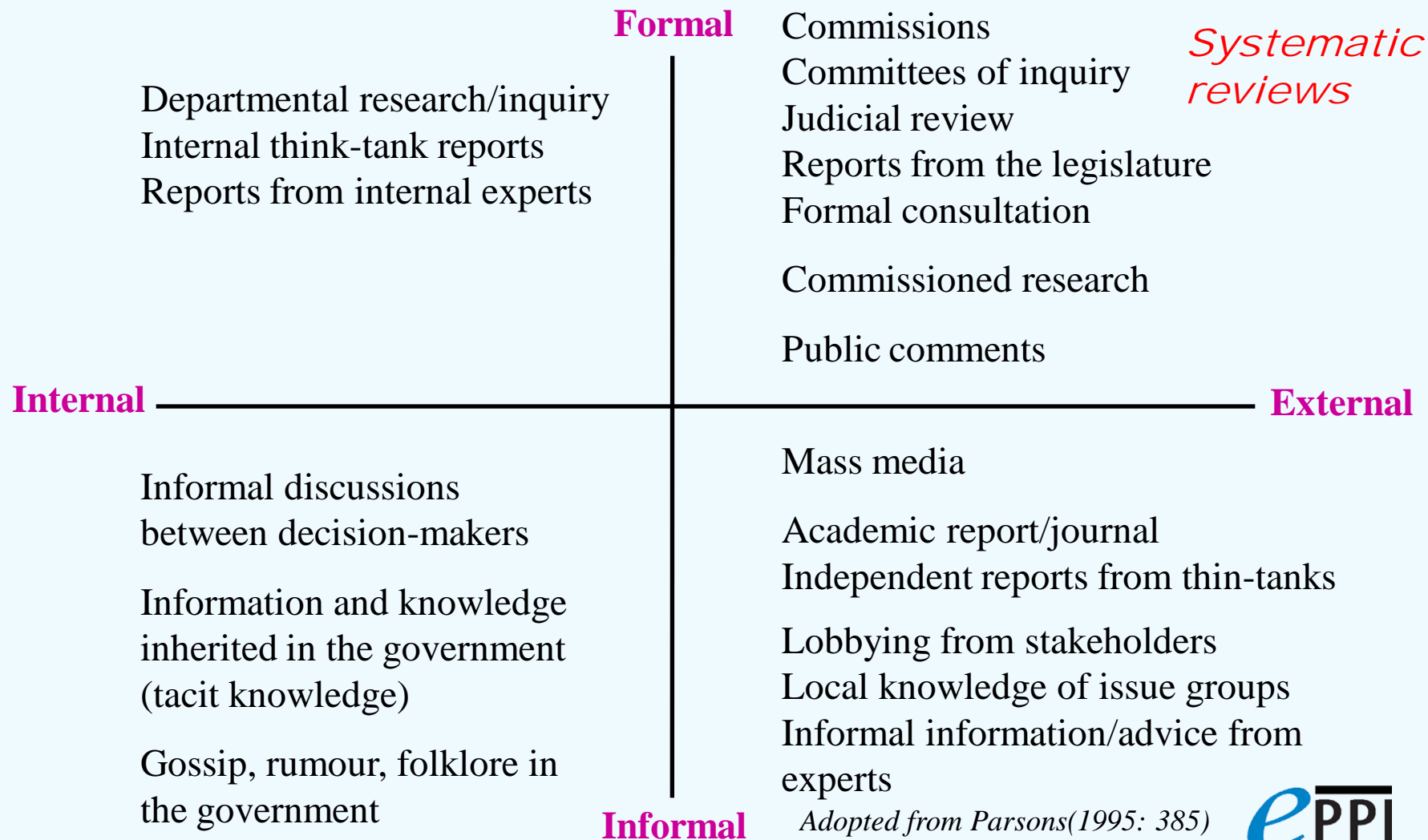
Research review: Empirical review of research on process and outcome of recovery model in parental mental health

Practice survey: knowledge from the field (survey, literature, etc) about practice (such a accepted wisdom, range or prevalence of approaches)

Knowledge review answer

Knowledge review for SCIE by Kelly and Gough, EPPI-Centre

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Information and Knowledge Generation *(from Yoshizawa 2009)*

Formal

Systematic reviews

Departmental research/inquiry
Internal think-tank reports
Reports from internal experts

Commissions
Committees of inquiry
Judicial review
Reports from the legislature
Formal consultation

Commissioned research

Public comments

Internal ——————————————————— **External**

Informal discussions
between decision-makers

Information and knowledge
inherited in the government
(tacit knowledge)

Gossip, rumour, folklore in
the government

Mass media

Academic report/journal
Independent reports from thin-tanks

Lobbying from stakeholders
Local knowledge of issue groups
Informal information/advice from
experts

Informal

Adopted from Parsons(1995: 385)

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2. SRS uses
(i) Access to research

- Quantity – even academics can not keep up with research

- Location – distributed in many journals

- Language - technical

- Skill in quality and relevance appraisal

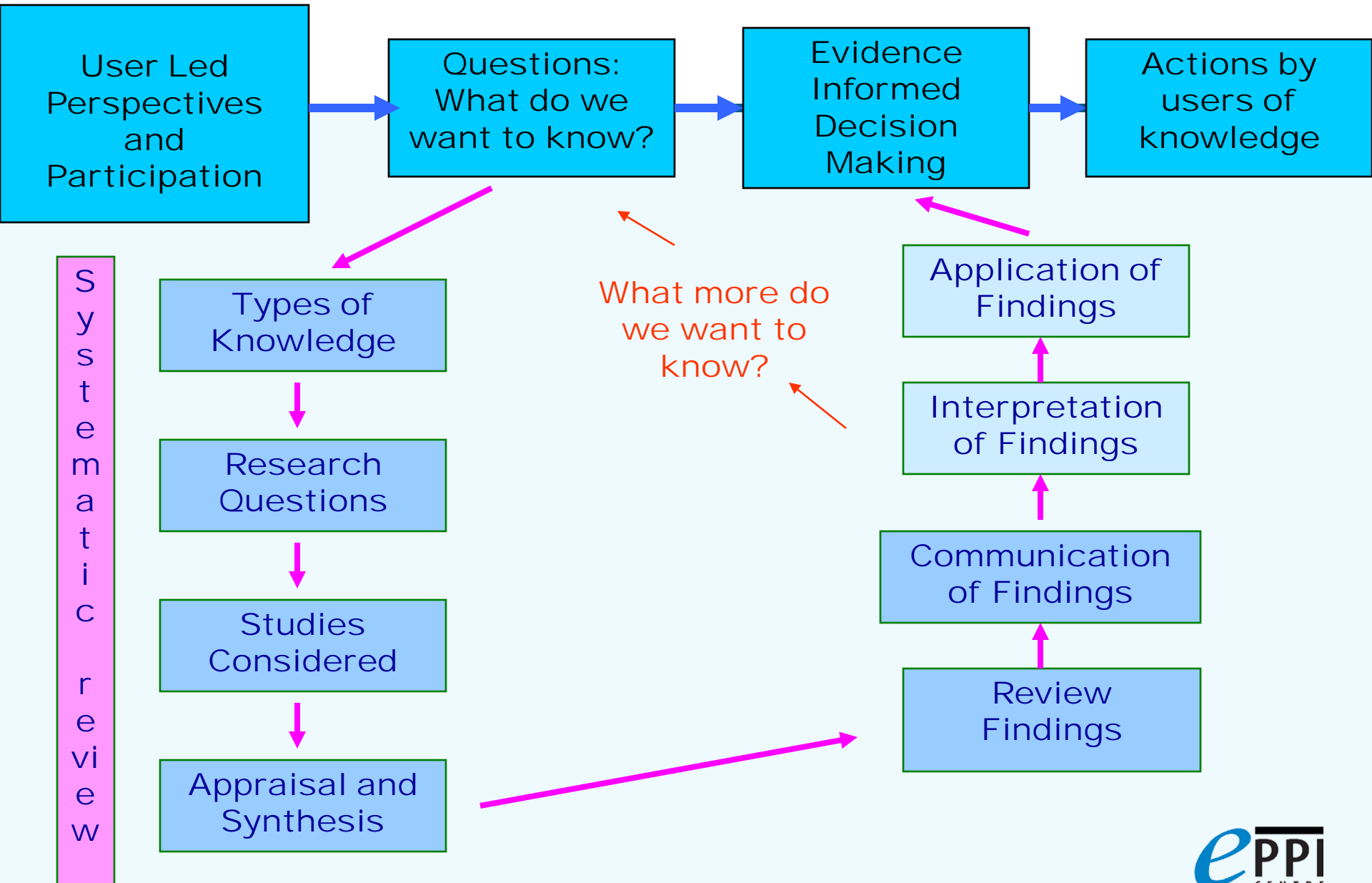- Review of field (map) and overall messages (synthesis)

(ii) What has been studied

- The nature of the research field. What we know about what has been studied (map) – what has not been studied!

(iii) What the research tells us

- What we know about the overall messages (synthesis)
  - inform decision making by policy makers, professionals, the public
  - inform the focus of new primary research

USER LED RESEARCH SYNTHESIS

User Led Perspectives and Participation → Questions: What do we want to know? → Evidence Informed Decision Making → Actions by users of knowledge

Systematic review

Types of Knowledge → Research Questions → Studies Considered → Appraisal and Synthesis

What more do we want to know?

Application of Findings ← Interpretation of Findings ← Communication of Findings ← Review Findings

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For example:

- How best to teach children to read: teachers strategies based on practice or declarative knowledge

- Theoretical understanding of why many patients do not take their medicines

- Government policy in health service provision: systematic reviews a central component planning research and service delivery

3. Policy support – evidence informed policy making

- Knowledge bases (maps, reviews and their components) to inform policy (and funding research gaps)

- Overt and sustainable systems

- Greater distinction between:
  - ideological / theoretical stance of evidence
 - evidence from this stance

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and ...

- Genuine interest from policy makers and practitioners for research to inform policy - though normal policy dynamics apply

- Irritation from contradictory advice (without clarity as to why) which devalues academic input (perceived as opinion)

- Long term gains in credibility and use of research in policy process

Research often just one small factor:

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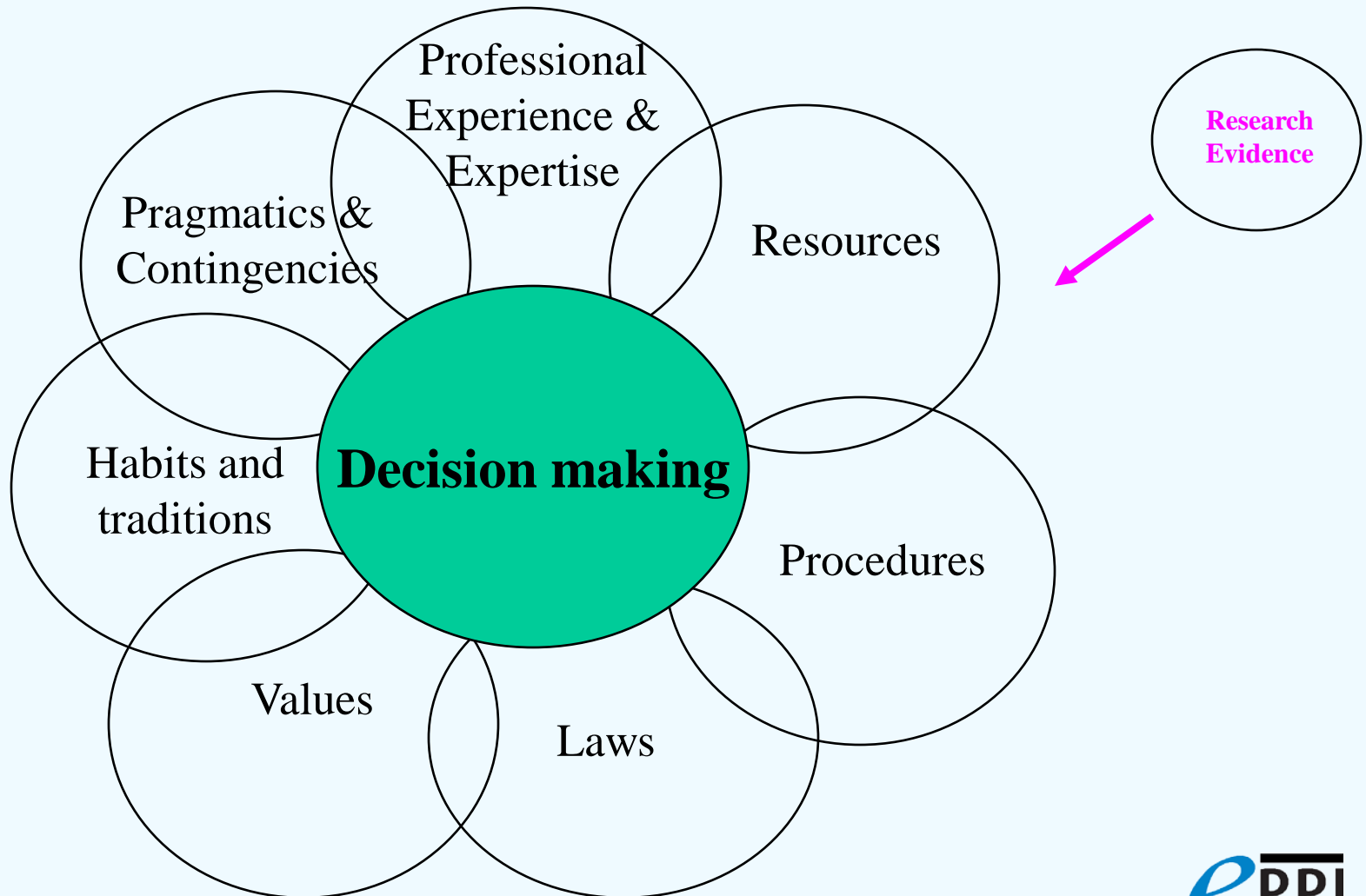
Intermediary processes / organisations

- And need further formal processes for interpretation and implementation of the (question driven and ideologically and theoretically derived) synthesized knowledge

- NIHR (National Institute for Health Research) as an example of a comprehensive model:

The central role of NIHR research in the innovation pathway

CREATE > **REFINE** > **EVALUATE** > **APPRAISE** > **USE**

MRC
- Basic Research
- Development Pathway Funding

National Institute for Health Research
- Invention for Innovation
- Biomedical Research Centres
- Biomedical Research Units
- Patient Safety and Quality Research Centres
- Research for Innovation, Speculation & Creativity
- Research for Patient Benefit
- Health Services Research
- Programme Grants for Applied Research
- Public Health Research
- Service Delivery & Organisation
- Health Technology Assessment
- Centre for Reviews & Dissemination, Cochrane, TARs
- Collaborations for Leadership in Applied Health Res & Care

NHS Purchasing & Supplies Agency — Centre for Evidence-based Purchasing

National Institute for Health & Clinical Excellence — Guidance on Health & Healthcare

NHS Evidence — Access to Evidence

NHS Institute for Innovation & Improvement — Support for the NHS

Strategic Health Authorities — Duty of Innovation

Primary Care Trusts — Healthcare Commissioning

NHS Providers — Patient Care

EPPI-Centre examples

- DWP –maps of health and employment, in work poverty, change of circumstances

- DH – programme of reviews on health promotion

- DCSF – capacity building and programme of reviews on education
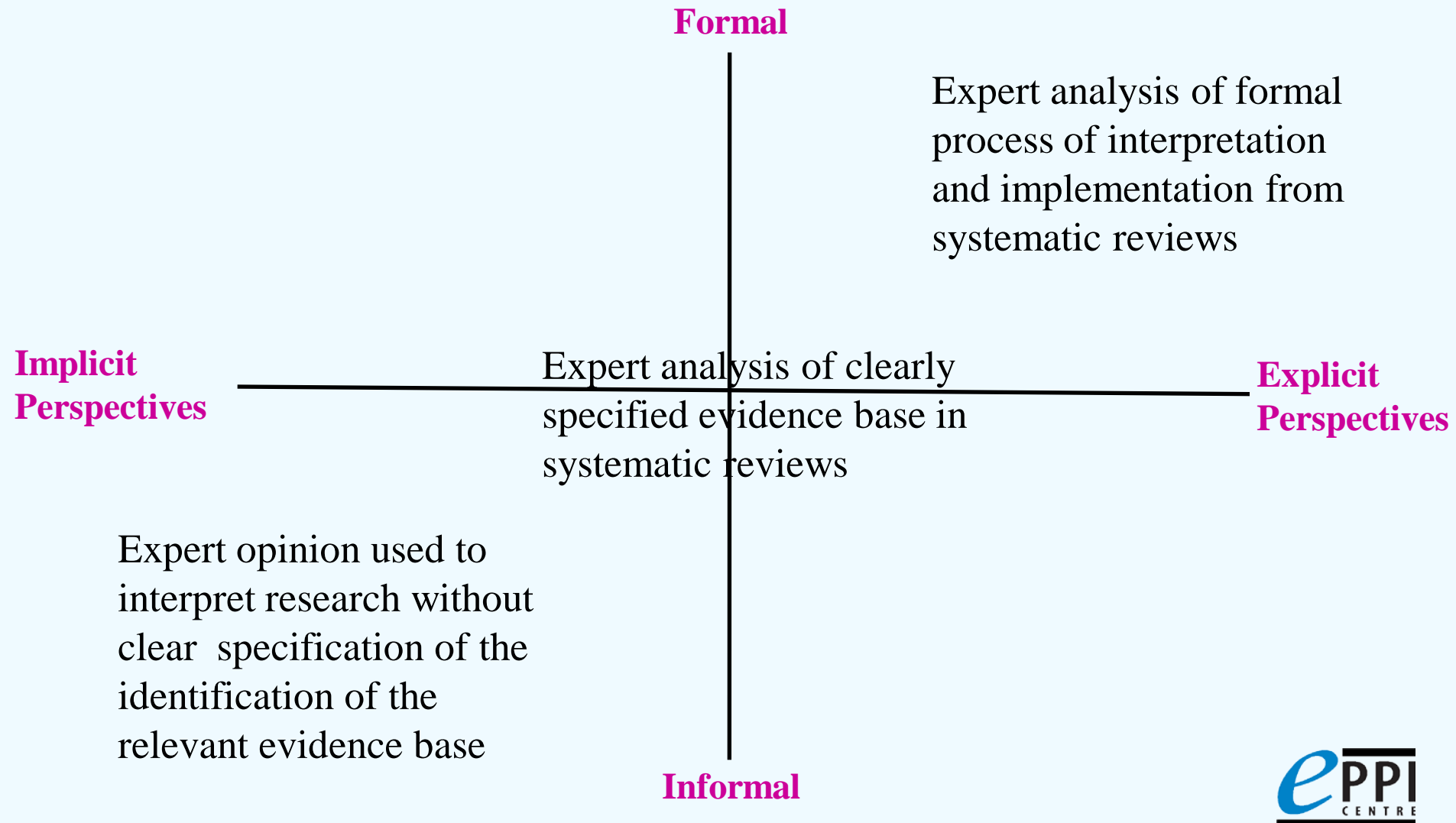
- SCIE – mixed knowledge reviews

Three contexts for academic analysis to inform decision making
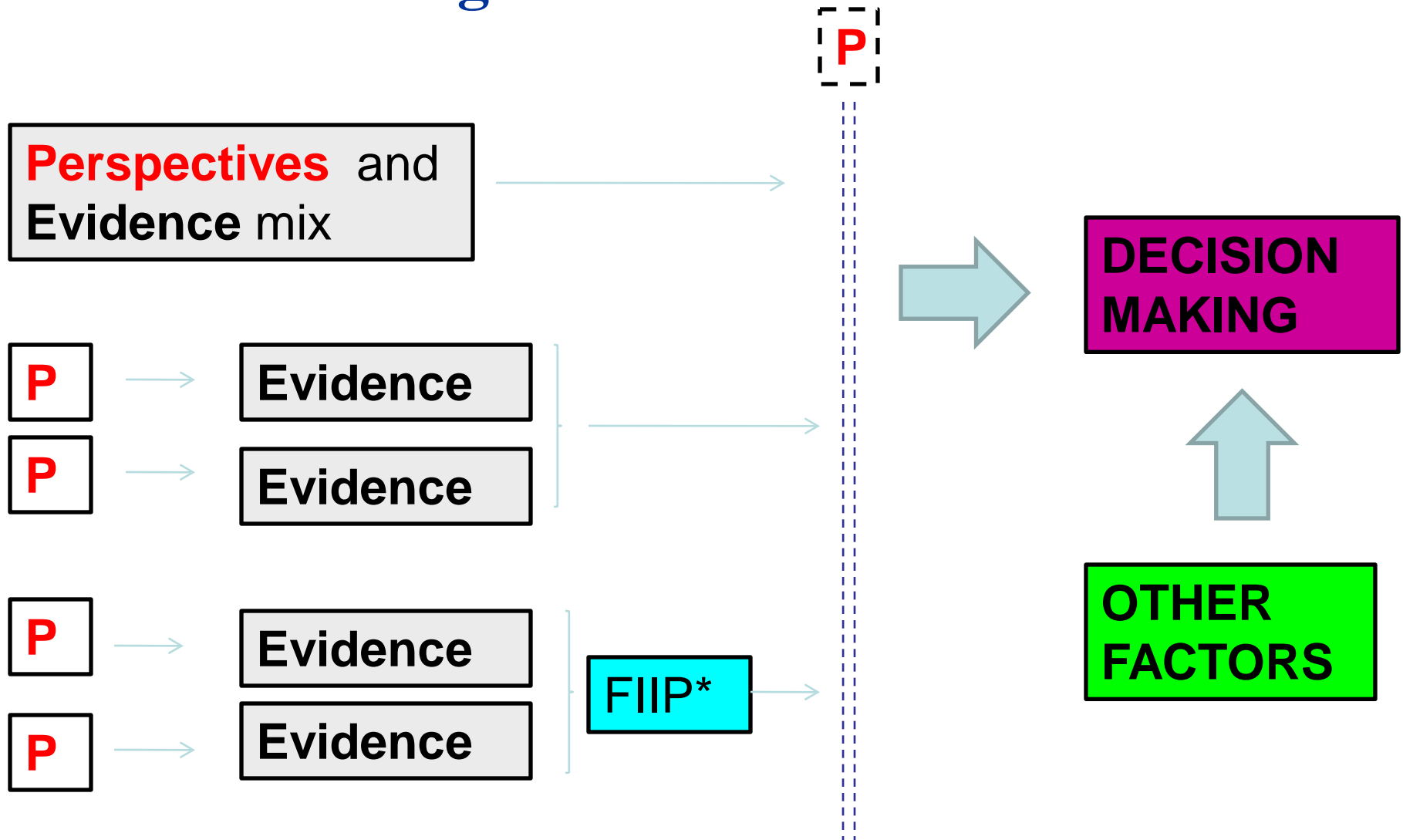
*Formal interpretation and implementation process

Formality of process / specification of process in production of evidence intelligence to inform decision making

Formal

Implicit Perspectives

Explicit Perspectives

Informal

Expert analysis of formal process of interpretation and implementation from systematic reviews

Expert analysis of clearly specified evidence base in systematic reviews

Expert opinion used to interpret research without clear specification of the identification of the relevant evidence base

4. Other benefits for universities

- Departmental research: SRs basic research output

- Discipline course content: research context

- Research skills:
  - SRS as basic research skill
  - for teaching fit for purpose primary research methods
  - planning and interpreting research (what has been done and what needs to be done)

For example:

- National research programme conference:
  - 7 studies with fascinating questions
  - Appropriate methods & interesting results

BUT none of the studies stated:
  - What was known before
  - How the results changed what was known

Requirement for research funding?

So building on / challenging previous work

Universities cont'd:

- More efficient research with less unplanned replication and research to fill known gaps
- Improved methods and reporting of these in primary studies (as otherwise omitted from reviews)

5. EIPP politics and democracy

Academic anxiety / resistance:

- Privileging empirical quantitative paradigm
- Summarizing research intrinsically reductive
- Part of new managerialism and government control of the research agenda
- Research as a resource for government rather than critical analysis of government
- Threat to current academic roles

But EIPP and democracy

- Evidence informed explicit values based policy making (rather than hidden process)
- Allow democratic involvement through:
  - easier access to research and its interpretation and use
  - literacy in research sufficient for informed participation
  - Involvement in framing questions for reviews and thus of new primary research agendas

Thank you

SSRU website: http://www.ioe.ac.uk/ssru/
SSRU's EPPI website: http://eppi.ioe.ac.uk *In Japanese!*

NRCM MRS website
http://www.ncrm.ac.uk/about/organisation/Nodes/MRS/MRS.php

Email :d.gough@ioe.ac.uk

The EPPI-Centre is part of the Social Science Research Unit at the Institute of Education, University of London
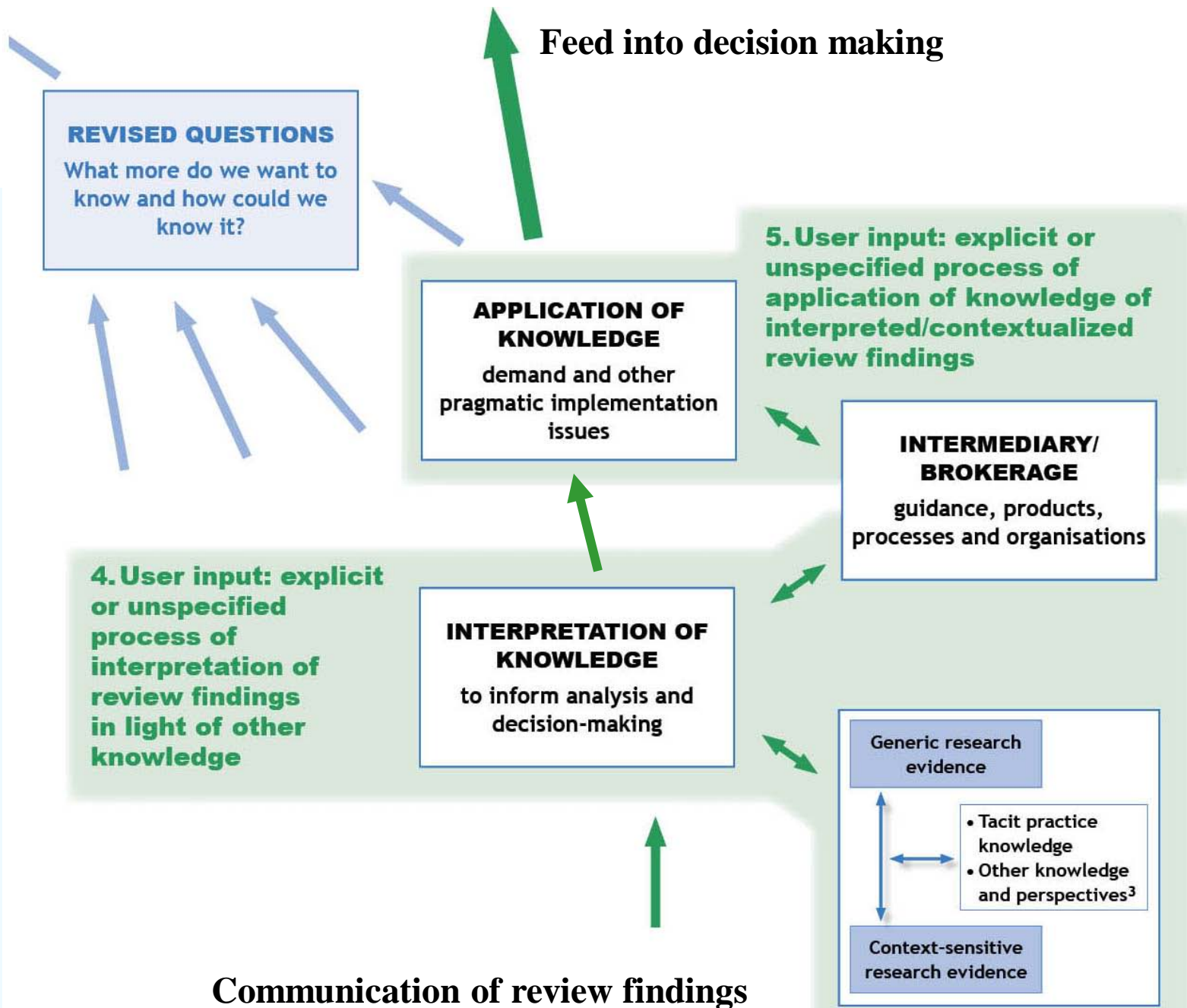
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Feed into decision making

REVISED QUESTIONS

What more do we want to know and how could we know it?

APPLICATION OF KNOWLEDGE

demand and other pragmatic implementation issues

5. User input: explicit or unspecified process of application of knowledge of interpreted/contextualized review findings

INTERMEDIARY/ BROKERAGE

guidance, products, processes and organisations

4. User input: explicit or unspecified process of interpretation of review findings in light of other knowledge

INTERPRETATION OF KNOWLEDGE

to inform analysis and decision-making

Generic research evidence

- Tacit practice knowledge
- Other knowledge and perspectives[3]

Context-sensitive research evidence

Communication of review findings

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New journal!

https://www.policypress.org.uk/journals/evidence_policy/