Informing the implementation of health technologies from research

How can HTA reports utilize research evidence when informing the uptake and delivery of new health technologies?

**HTA for Health System Sustainability
8th Annual meeting of HTAi
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Delivery:
The last mile problem

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Now, a new intervention is not the end.
It is not even the beginning of the end.
But it is, perhaps, the end of the beginning.

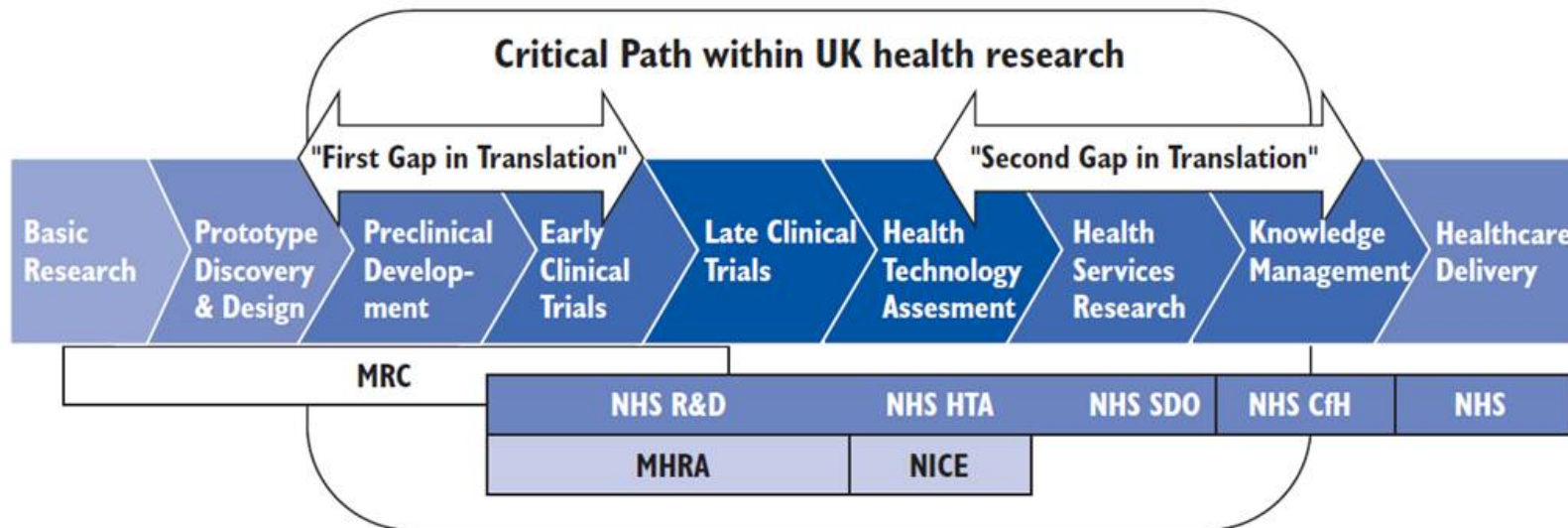paraphrasing Sir Winston Churchill, 1942

Knowledge for implementation – a challenge

- There is still a long way to go to achieve the health related MDGs and other health goals

- To a large extent we have developed and evaluated technologies, clinical interventions and programmes that work in improving health

- However, these interventions do not reach out or are not delivered at scale

- Health system strengthening (HSS) is crucial for improving delivery and achieving goals

- An important knowledge domain for HSS is how to improve the implementation of effective interventions – implementation research
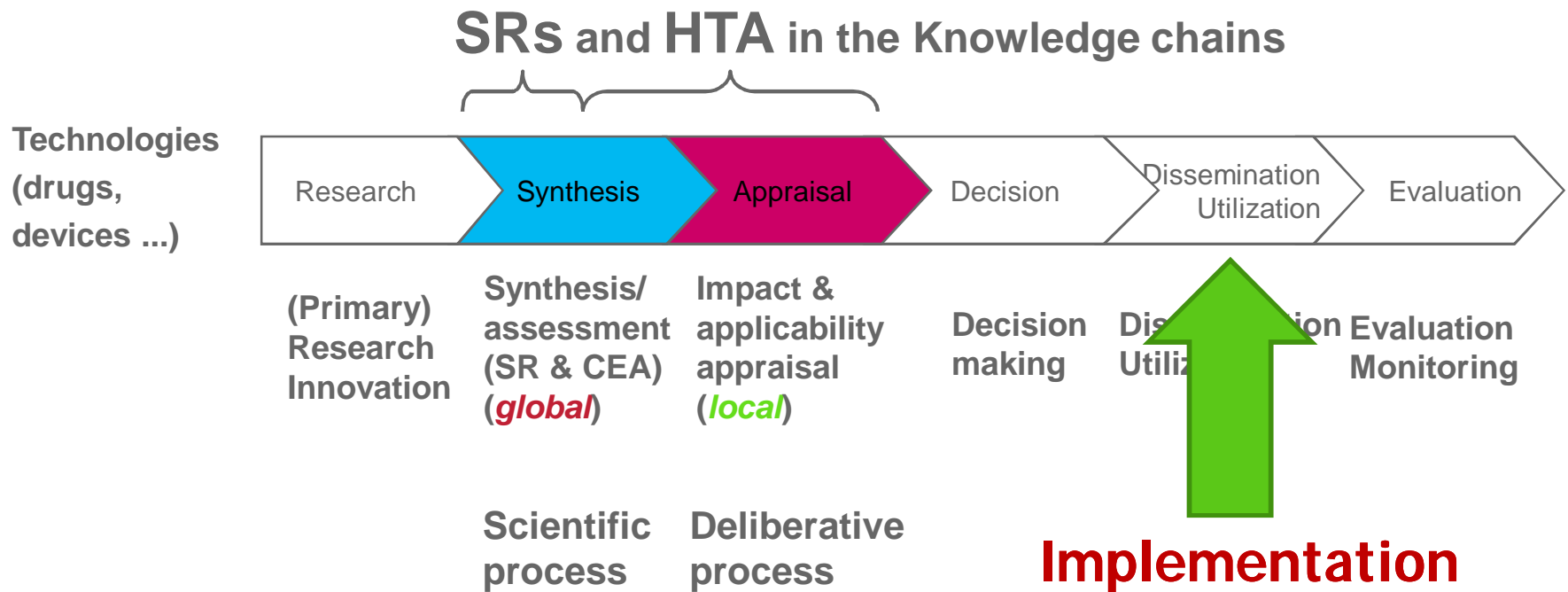
Translational gaps

t_1 – health technologies/clinical interventions

t_2 - implementation

The health sector value chain:

the horizontal dimension

SRs and **HTA** in the Knowledge chains

Technologies (drugs, devices ...)

Research	Synthesis	Appraisal	Decision	Dissemination Utilization	Evaluation

(Primary) Research Innovation

Synthesis/ assessment (SR & CEA) (*global*)

Impact & applicability appraisal (*local*)

Decision making

Dissemination Utilization

Evaluation Monitoring

Scientific process

Deliberative process

Implementation

Implementation issues in HTA reports: Organizational and patient related issues

- **Effectiveness 48%, cost-effectiveness 37% and ethical and social issues 17%**
  - (Lehoux et al 2004)
- **Effectiveness 95%, cost-effectiveness 53% and acceptability 25%**
  - (Draborg et al 2005)
- **Organizational and/or patient related issues 38%**
  - (Lee and Seest Linding 2007)

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Implementation issues in HTA reports
(Lavis et al 2010)

Methods
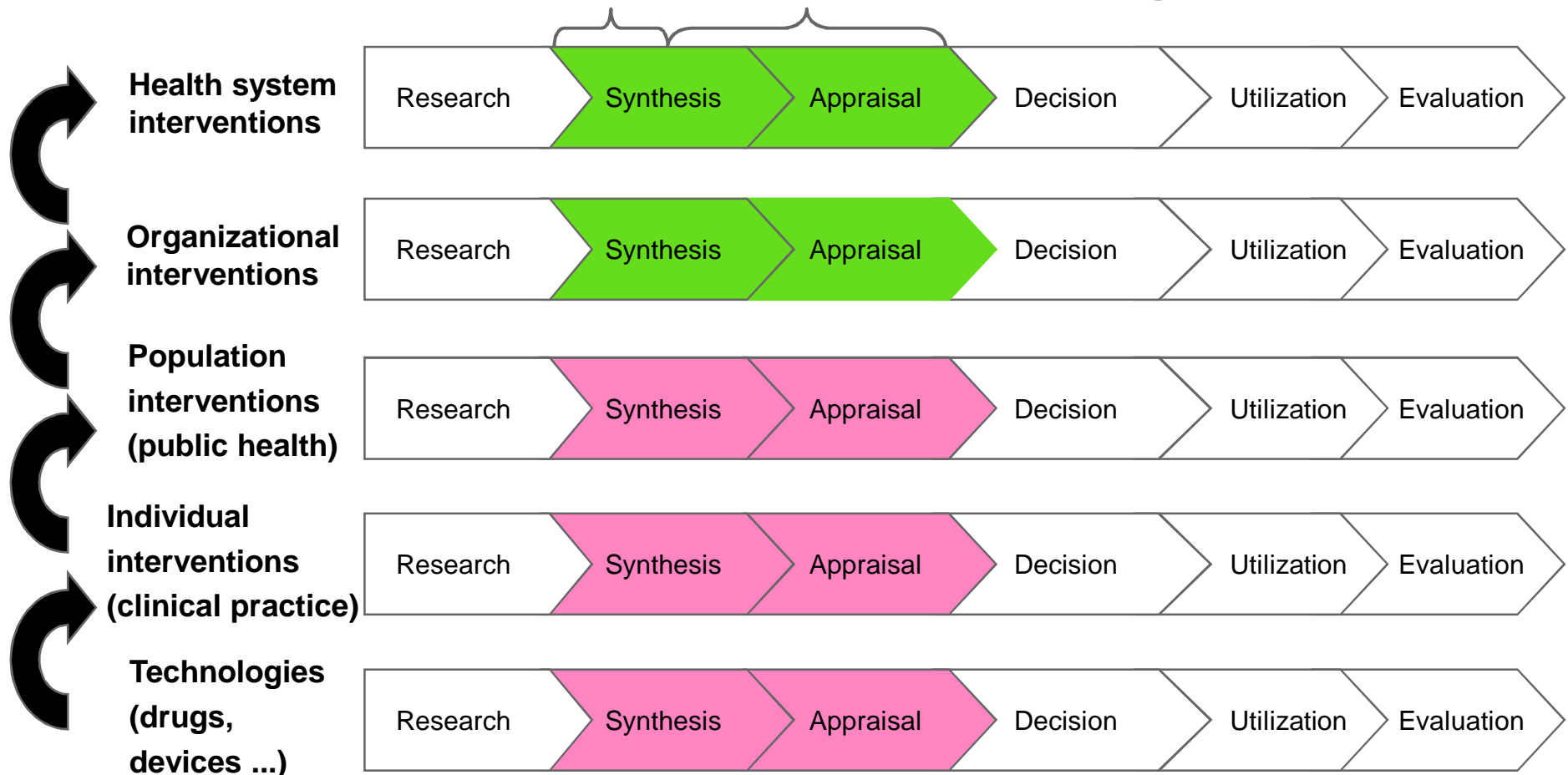
- **Systematic review**   49%
  - only
- **Economic evaluation**   2%
  - only
- **SR + EE**   38%
- **Full HTA**   5%
  - incl organizational...

    (223 HTAs from Canada, USA, England and Denmark)

Different levels of "technologies"
vertical dimension

SRs and HTA in the Knowledge chains

Health system interventions

Research	Synthesis	Appraisal	Decision	Utilization	Evaluation

Organizational interventions

Research	Synthesis	Appraisal	Decision	Utilization	Evaluation

Population interventions (public health)

Research	Synthesis	Appraisal	Decision	Utilization	Evaluation

Individual interventions (clinical practice)

Research	Synthesis	Appraisal	Decision	Utilization	Evaluation

Technologies (drugs, devices ...)

Research	Synthesis	Appraisal	Decision	Utilization	Evaluation

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Implementation/system topics in HTA reports
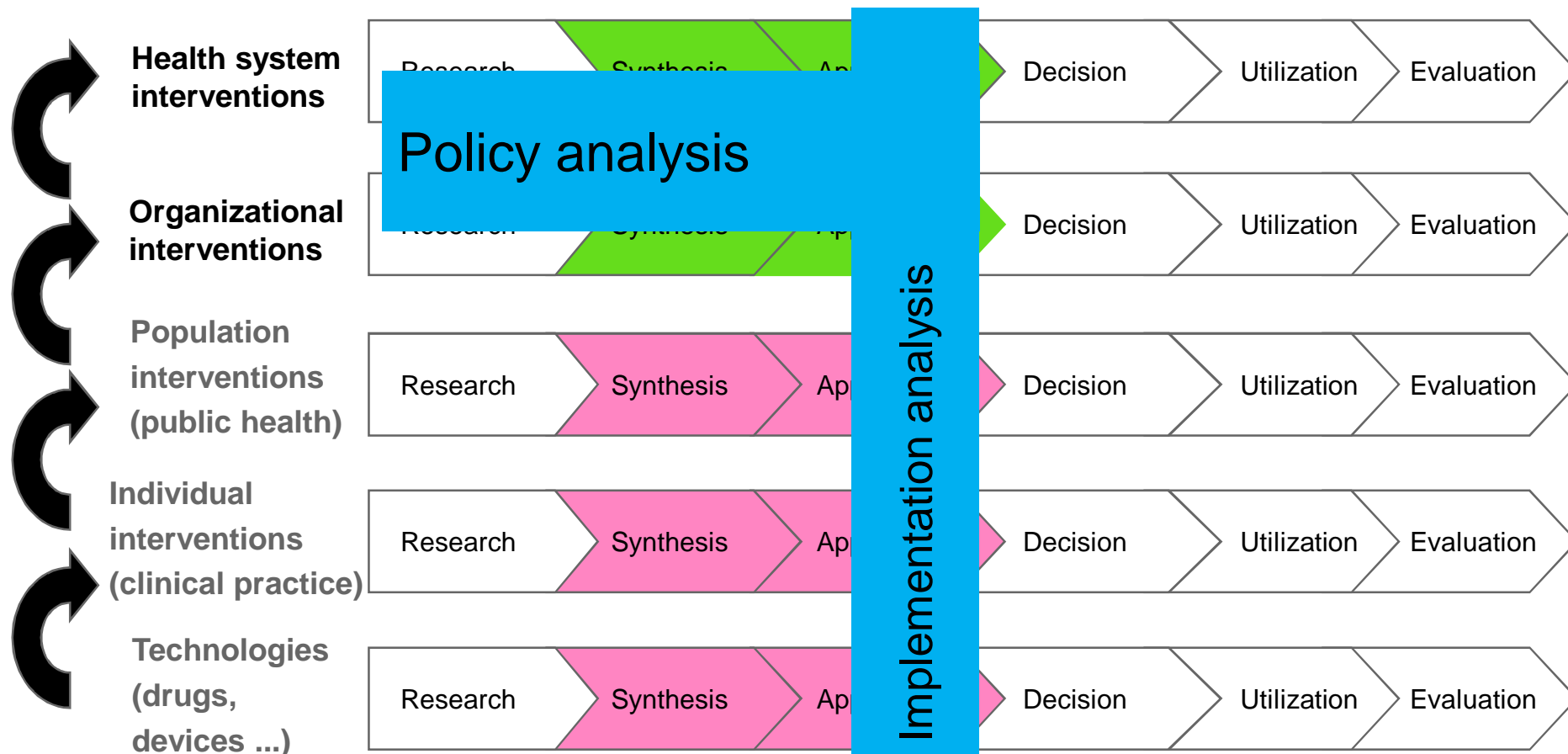**(based on Lavis et al 2010)**

Topics

- **Drugs**   28 %
- **Devices**   22 %
- **Diagnostics**   16 %
- **Surgery**   7 %
- **Other clinical**   24 %
- **Public health**   5 %
- **Delivery**   15%
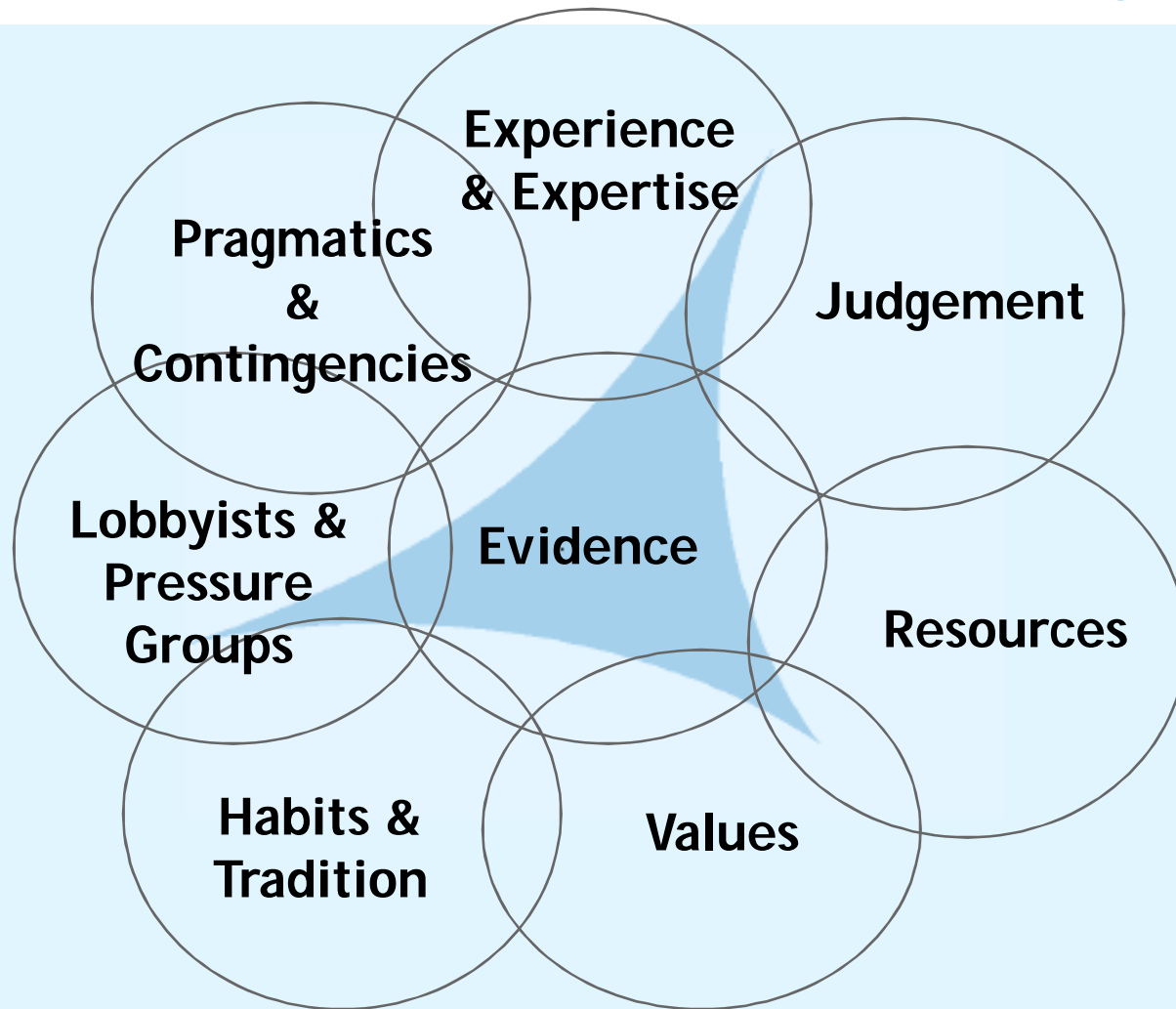- **Financial**   2%
- **Governance**   3%

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Need for horizontal and vertical expansion

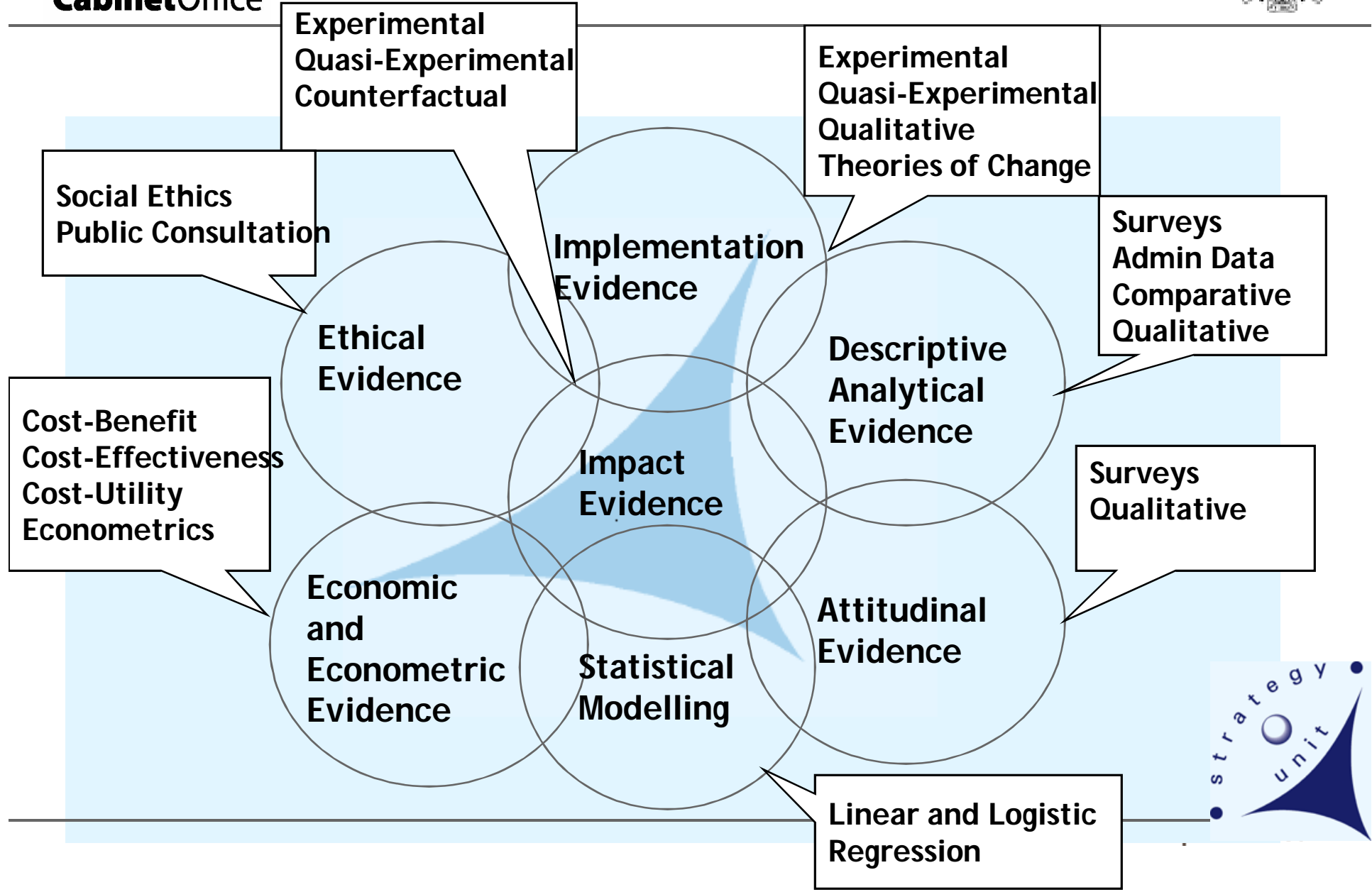|	Research	Synthesis	Ap...		Decision	Utilization	Evaluation
Health system interventions					Decision	Utilization	Evaluation
Organizational interventions					Decision	Utilization	Evaluation
Population interventions (public health)	Research	Synthesis	Ap...		Decision	Utilization	Evaluation
Individual interventions (clinical practice)	Research	Synthesis	Ap...		Decision	Utilization	Evaluation
Technologies (drugs, devices ...)	Research	Synthesis	Ap...		Decision	Utilization	Evaluation

Policy analysis

Implementation analysis

Research evidence is only one contribution to decision making

Clinical effectiveness is not enough

CabinetOffice

Experimental
Quasi-Experimental
Counterfactual

Experimental
Quasi-Experimental
Qualitative
Theories of Change

Social Ethics
Public Consultation

Surveys
Admin Data
Comparative
Qualitative

Implementation
Evidence

Ethical
Evidence

Descriptive
Analytical
Evidence

Cost-Benefit
Cost-Effectiveness
Cost-Utility
Econometrics

Impact
Evidence

Surveys
Qualitative

Economic
and
Econometric
Evidence

Statistical
Modelling

Attitudinal
Evidence

Linear and Logistic
Regression

strategy unit

Implementation and policy analyses

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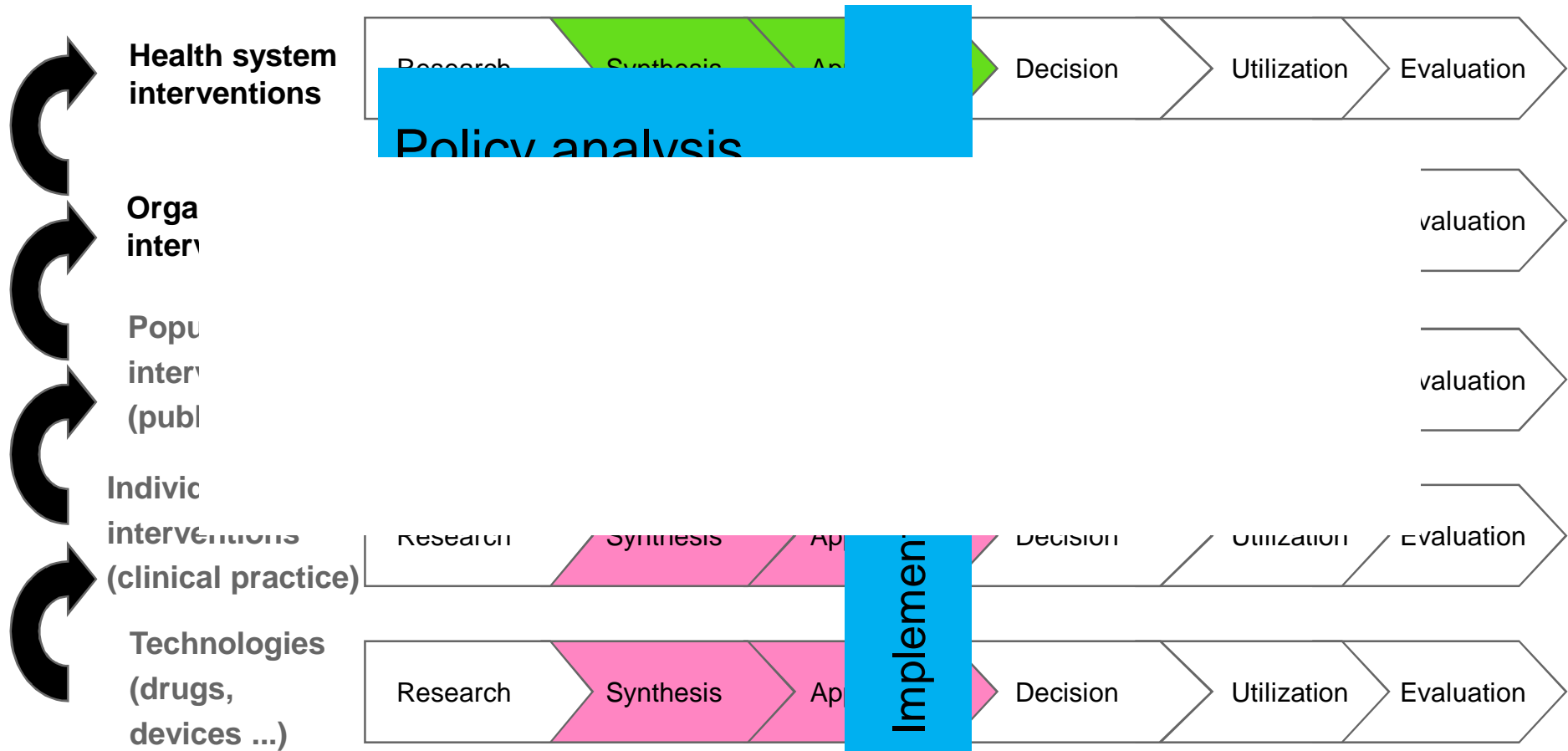
Example: Vaccine implementation (Cochrane reviews)

- The impact of **conditional cash transfers** on health outcomes and use of health services in low and middle income countries.
    - Lagarde M, Haines A, Palmer N. Cochrane Database of Systematic Reviews 2009, Issue 4.

- **Patient reminder and recall systems** to improve immunization rates.
    - Jacobson Vann JC, Szilagyi P. Cochrane Database of Systematic Reviews 2005, Issue 3.

- **Target payments** in primary care: effects on professional practice and health care outcomes.
    - Giuffrida A, Gosden T, Forland F, Kristiansen I, Sergison M, Leese B, Pedersen L, Sutton M. Cochrane Database of Systematic Reviews 1999, Issue 4.

- **Lay health workers** in primary and community health care for maternal and child health and the management of infectious diseases.
    - Lewin S, Munabi-Babigumira S, Glenton C, Daniels K, Bosch-Capblanch X, van Wyk BE, Odgaard-Jensen J, Johansen M, Aja GN, Zwarenstein M, Scheel IB. Cochrane Database of Systematic Reviews 2005, Issue 1. Updated version submitted.

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