ESRI ECONOMIC & SOCIAL RESEARCH INSTITUTE

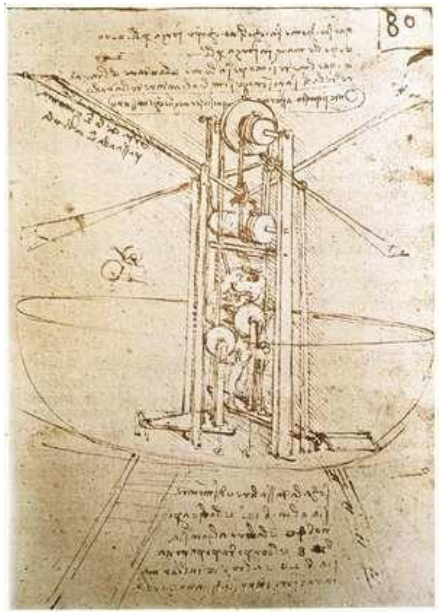
Using Behavioural Experiments to Pre-Test Policy

DATE
10th July 2018

VENUE
ESRI, Whitaker Square,
Sir John Rogerson's Quay,
Dublin 2

AUTHOR
Pete Lunn
Deirdre Robertson

A quote and two claims



"Experience never errs; it is only your judgments that err by promising themselves effects such as are not caused by your experiments."

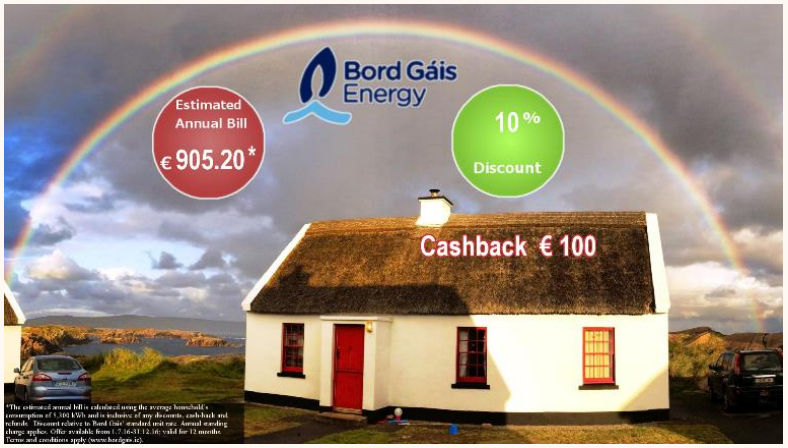
(From the notebooks of Leonardo da Vinci)

(1) The advance of behavioural science means that it is more possible than ever before to use experiments to test policies
(2) More pre-testing of policies would benefit the public finances and reduce business costs

EU Commission's Taxonomy
(Sousa Lourenço et al., 2016)

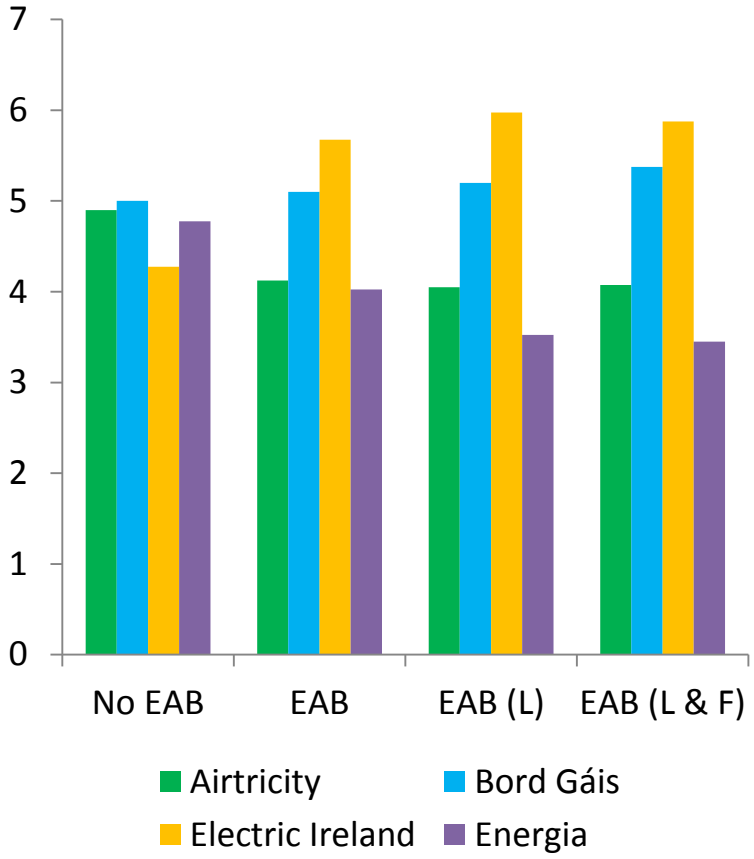
- Behaviourally "aligned"
  - E.g. Regulator who simplified system
- Behaviourally "informed"
  - E.g. Banning pre-ticked boxes for online sales
- Behaviourally "tested"
  - Subject to a specific experimental test

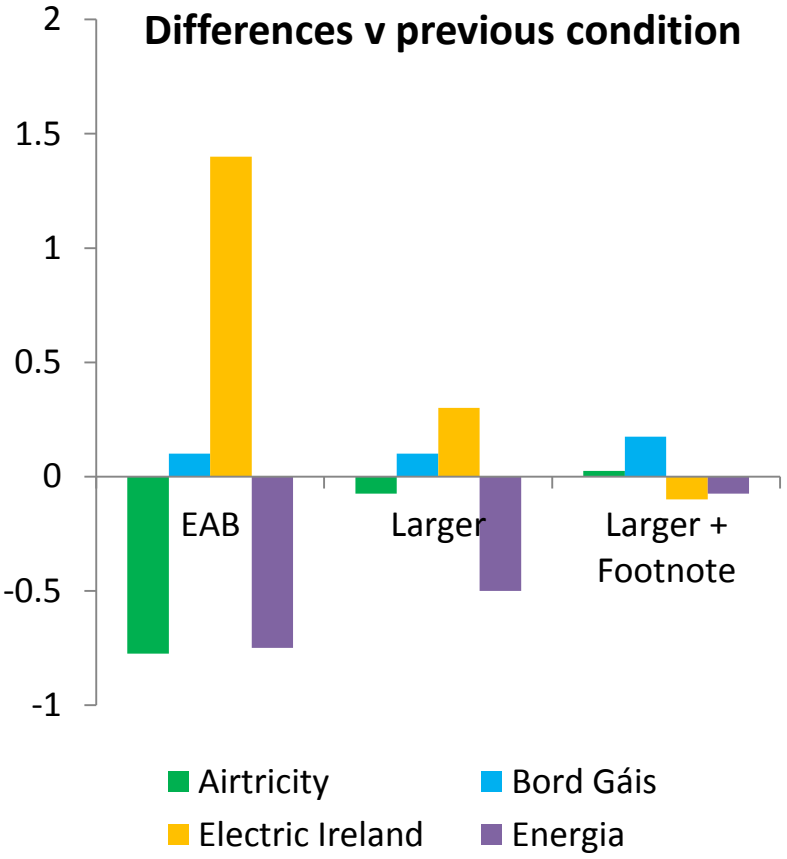
Example: Pre-testing energy pricing regulations for CRU



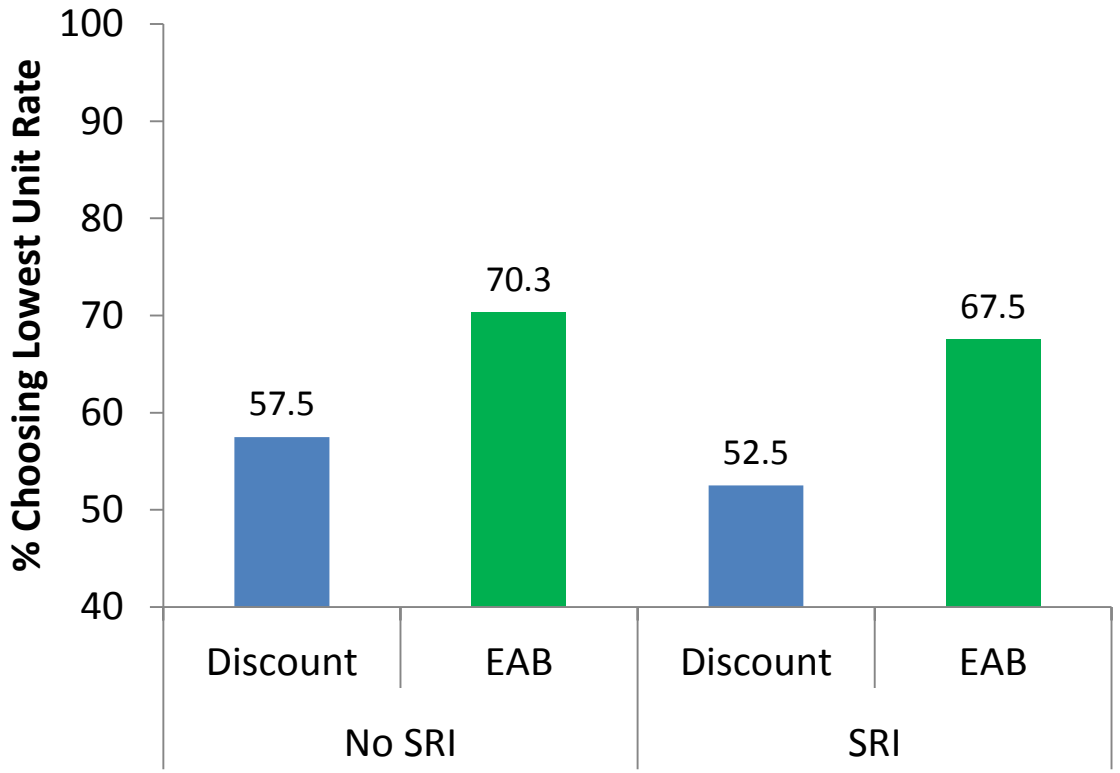
Choice tasks

Results: Ad ratings





Results: Choice Task



(Available Open Access, Journal of Behavioral Economics for Policy)

Behavioural Experimenters in Ireland

- ESRI Behavioural Research Unit
- Revenue
- Sustainable Energy Authority of Ireland
- IGEES
- UCD (+ new M.Sc.)

But mostly working on implementation or diagnosis, not pre-testing
Our claim: larger benefits from the latter

Behavioural Insights for Policy

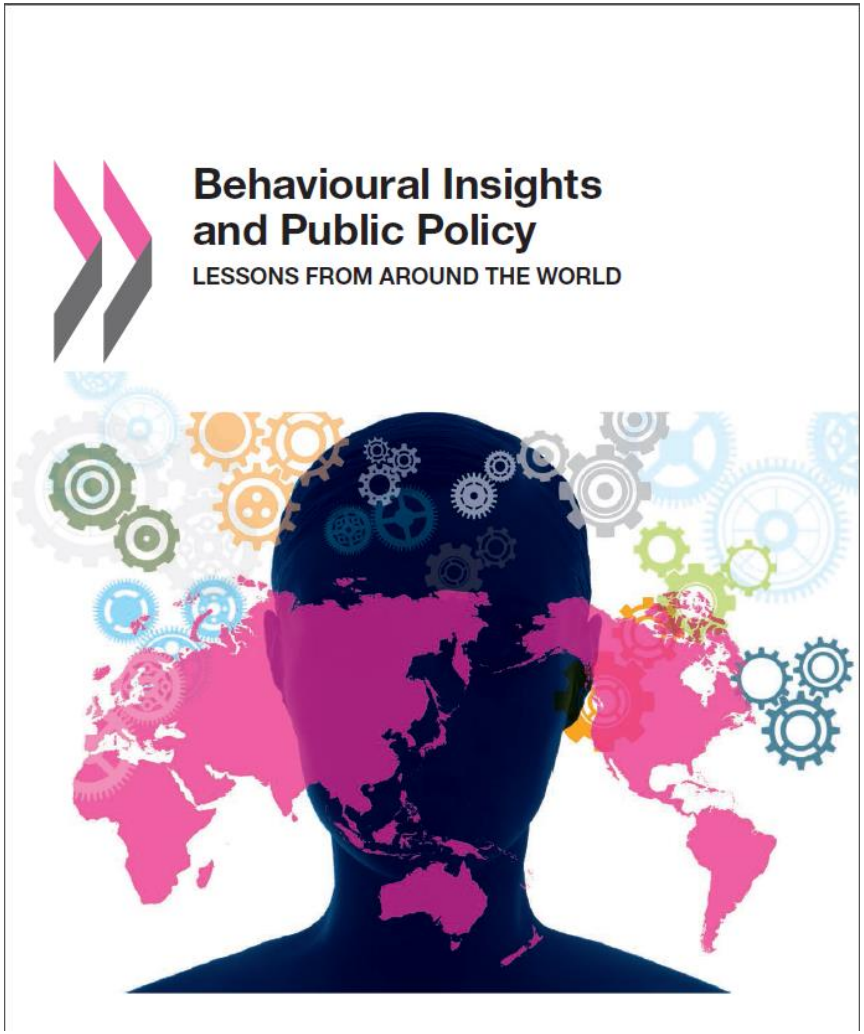
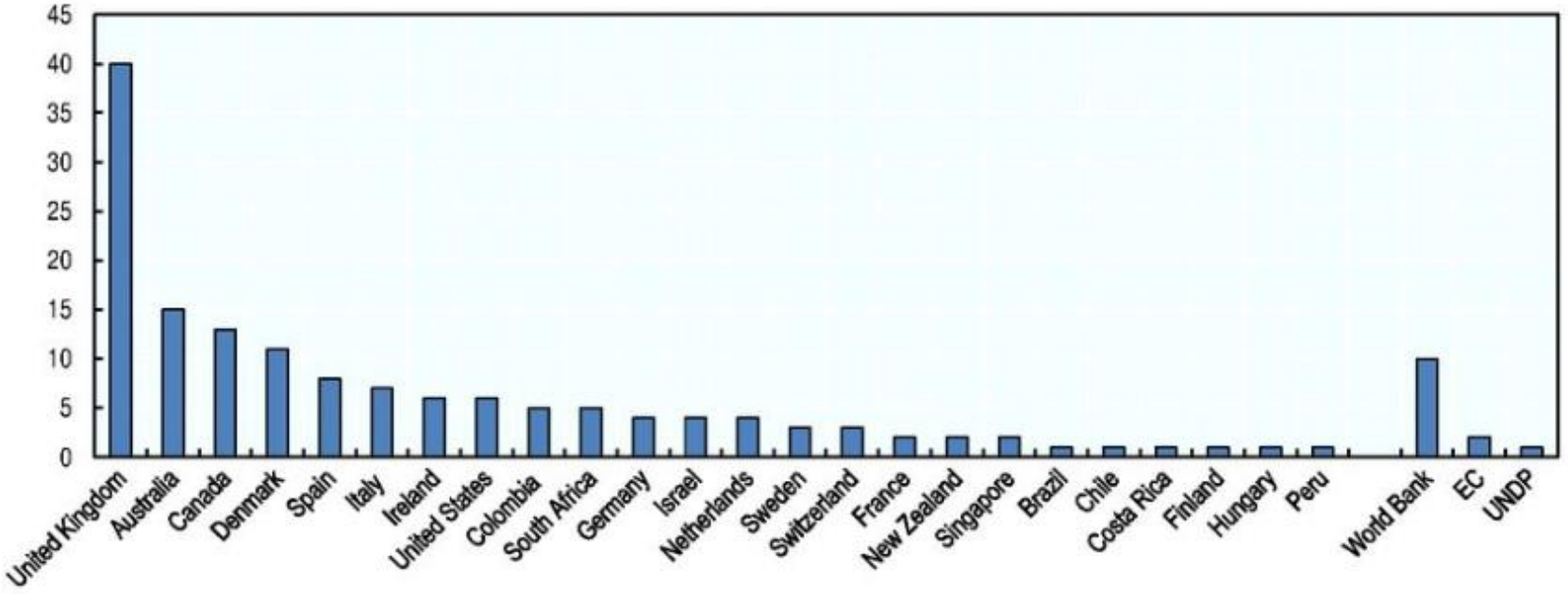


Figure 1.2. **Case studies reported by country**

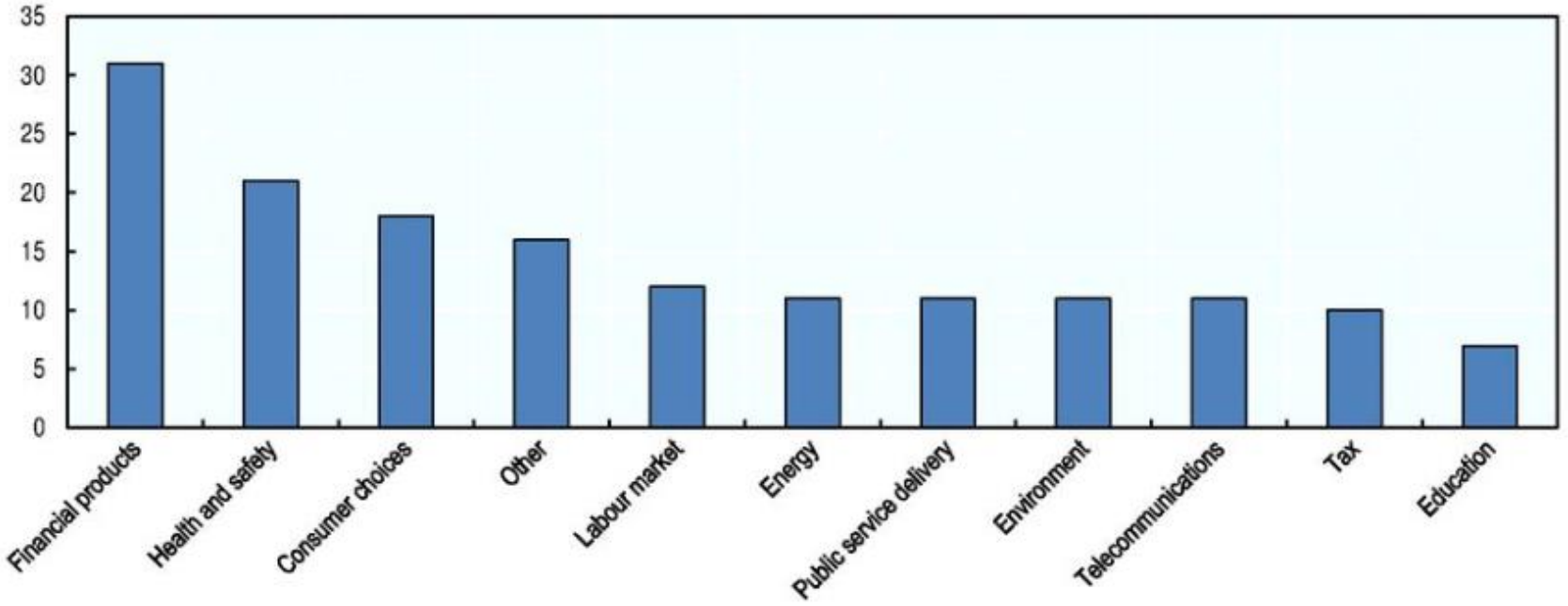
Total number of case studies = 159



Source: OECD 2016 Behavioural Insights Case Study Survey Dataset.

Figure 2.8. **Case studies reported by policy area**

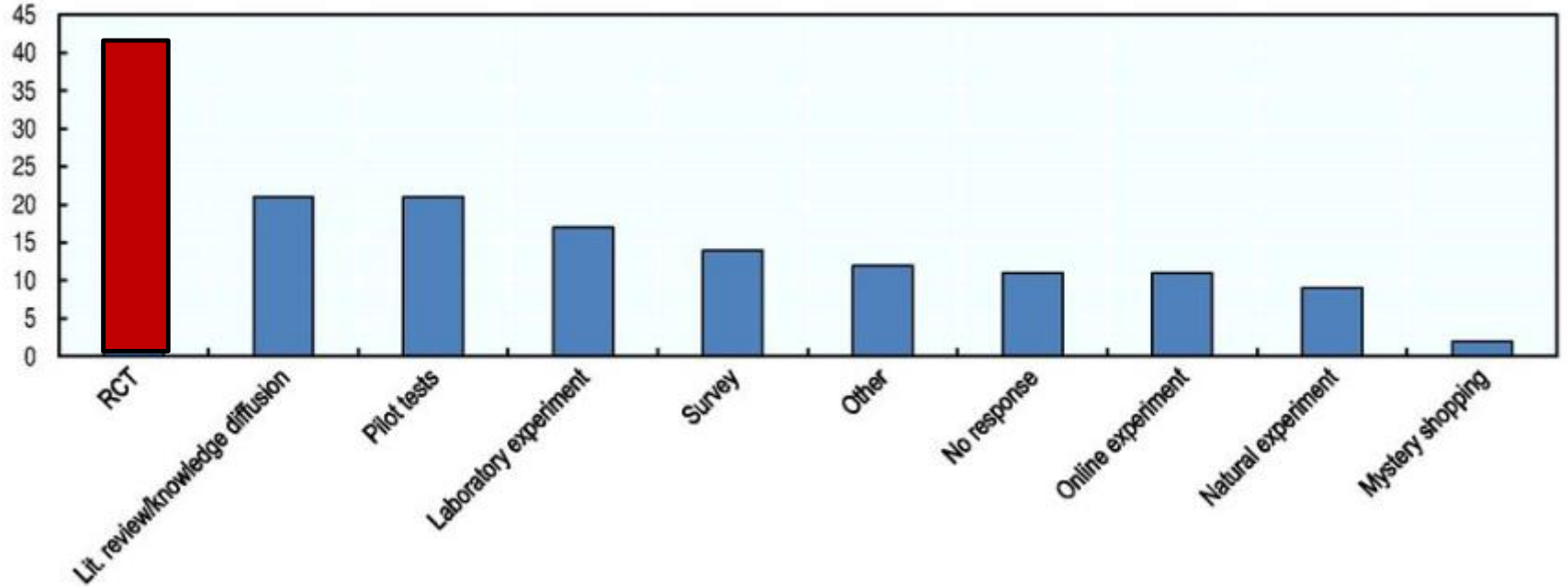
Total number of case studies = 129



Source: OECD 2016 Behavioural Insights Case Study Survey Dataset.

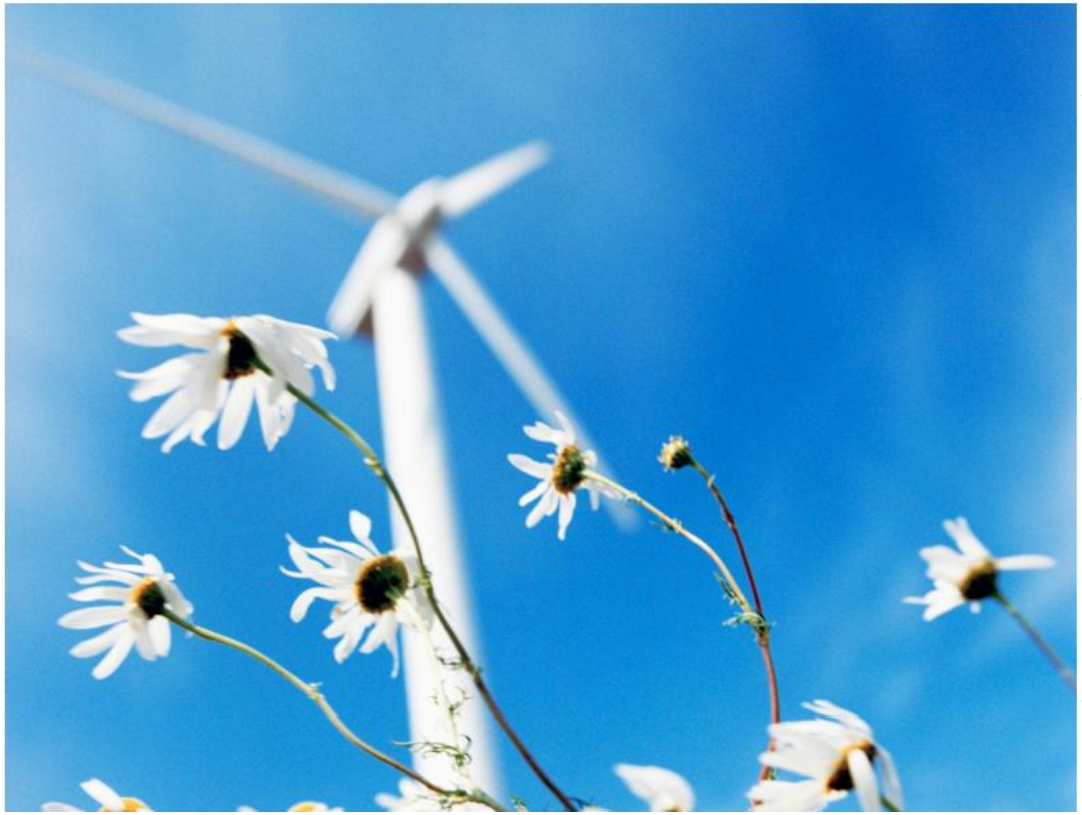
Figure 2.10. **Methods used for BI applications**

Total number of case studies = 159



Source: OECD 2016 Behavioural Insights Case Study Survey Dataset.

Energy Demand Research Project: Final Analysis



Source: AECOM (2011) Commissioned by OFGEM

Studies without smart meters

- ✗ Advice
- ✗ Historic consumption
- ? Benchmarking
- customer engagement
- Real-time display (RTDs)
- ? digital media for delivering information
- ✗ Financial incentives

Source: AECOM (2011) Commissioned by OFGEM

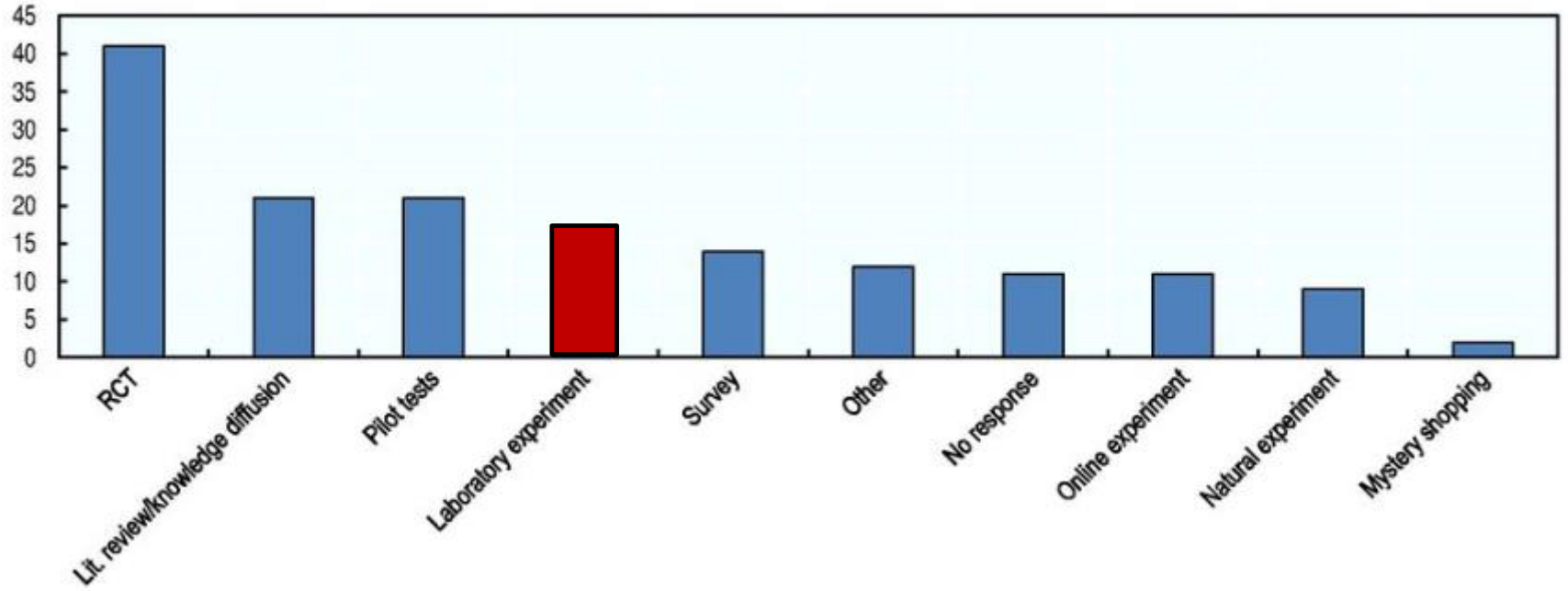
Studies with smart meters

- ? Advice (if simple)
- ? Historic consumption (if simple)
- benchmarking
- customer engagement
- ✓ Smart electricity and gas meters
- ✓ Real-time display (RTDs) (2-4% higher)
- ✗ Digital media for delivering information
- ✗ Financial incentives

Source: AECOM (2011) Commissioned by OFGEM

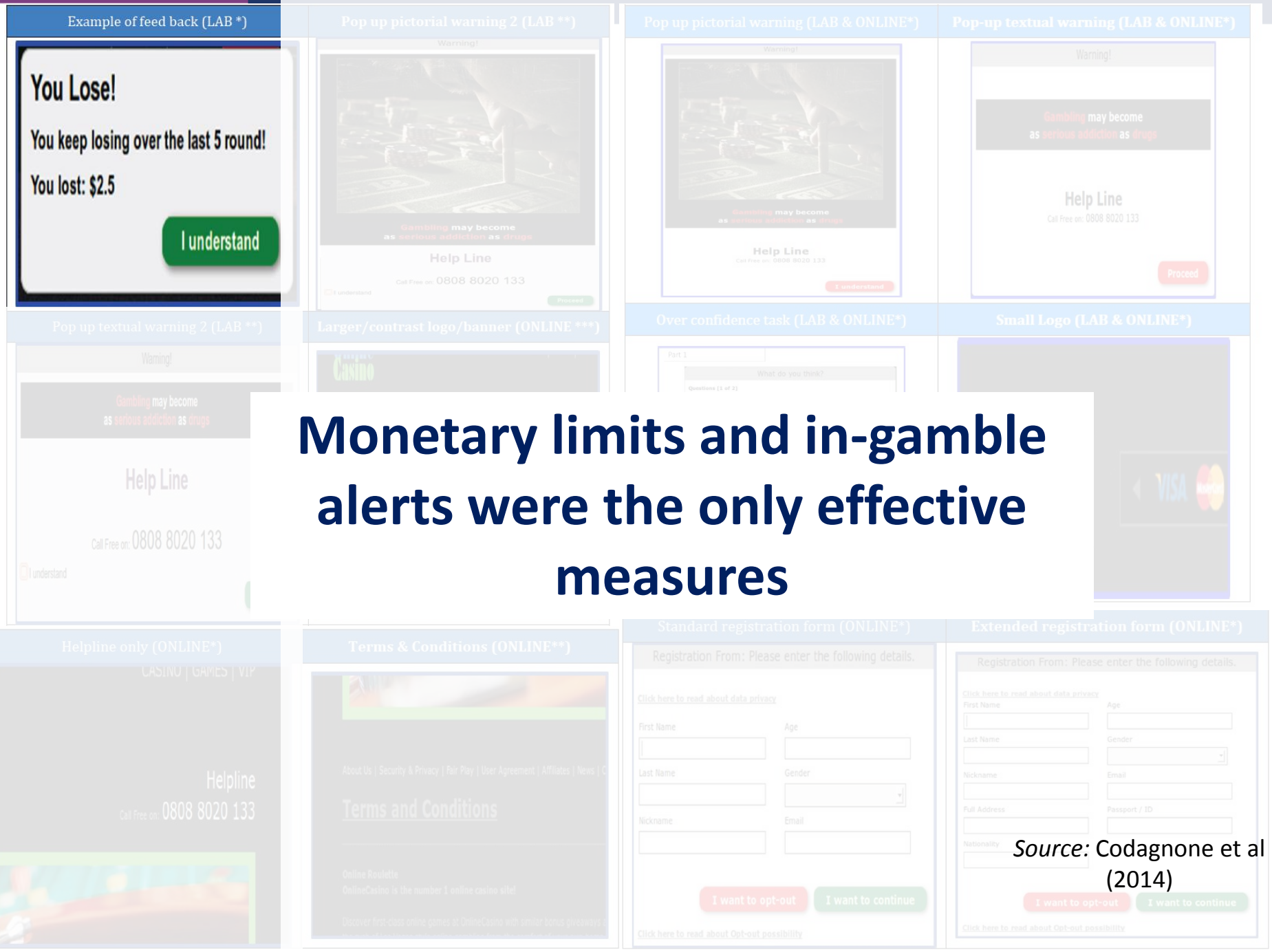
Figure 2.10. **Methods used for BI applications**

Total number of case studies = 159



Source: OECD 2016 Behavioural Insights Case Study Survey Dataset.

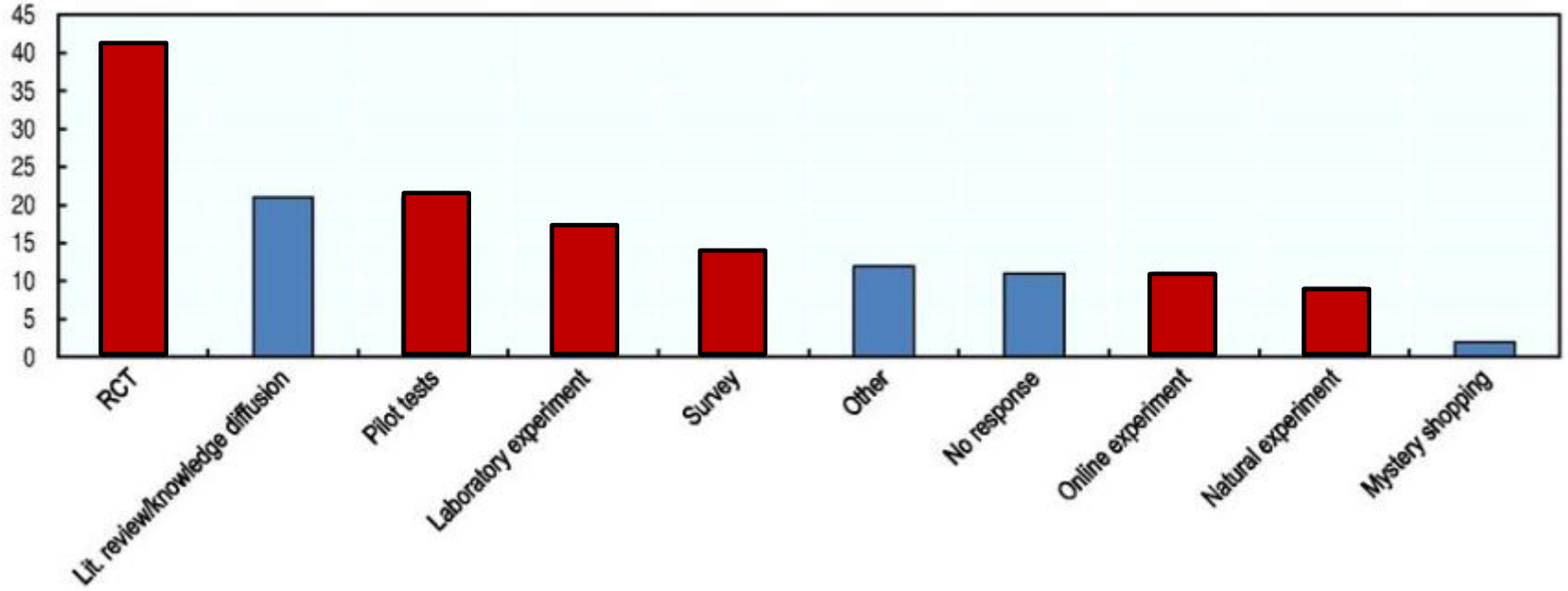
Monetary limits and in-gamble alerts were the only effective measures



Source: Codagnone et al (2014)

Figure 2.10. **Methods used for BI applications**

Total number of case studies = 159



Source: OECD 2016 Behavioural Insights Case Study Survey Dataset.

Table 3: Consumer welfare and contract selection

Treatment	Subjects	Pay/Consumer welfare (£)	% on right contract
1) GPLP with slamming	19	2.05 (4.88)	60.5
2) GPLP no slamming and no ETC warning	18	15.21 (2.88)	68.5
3) GPLP no slamming and simple ETC warning	20	12.85 (4.61)	68.3
4) GPLP no slamming and full ETC warning	20	15.07 (3.05)	70.0
5) LPLP with full ETC warning and retention offer	19	12.11 (5.76)	64.9
6) LPLP with full ETC warning, retention offer and time delays	18	10.68 (4.95)	63.0

Source: Huck & Wallace (2010); OECD 2017a

New Methods: Process Tracing

Process Tracing

Congruent PWLs

Congruent 1

Congruent 2

Incongruent PWLs

Incongruent 1

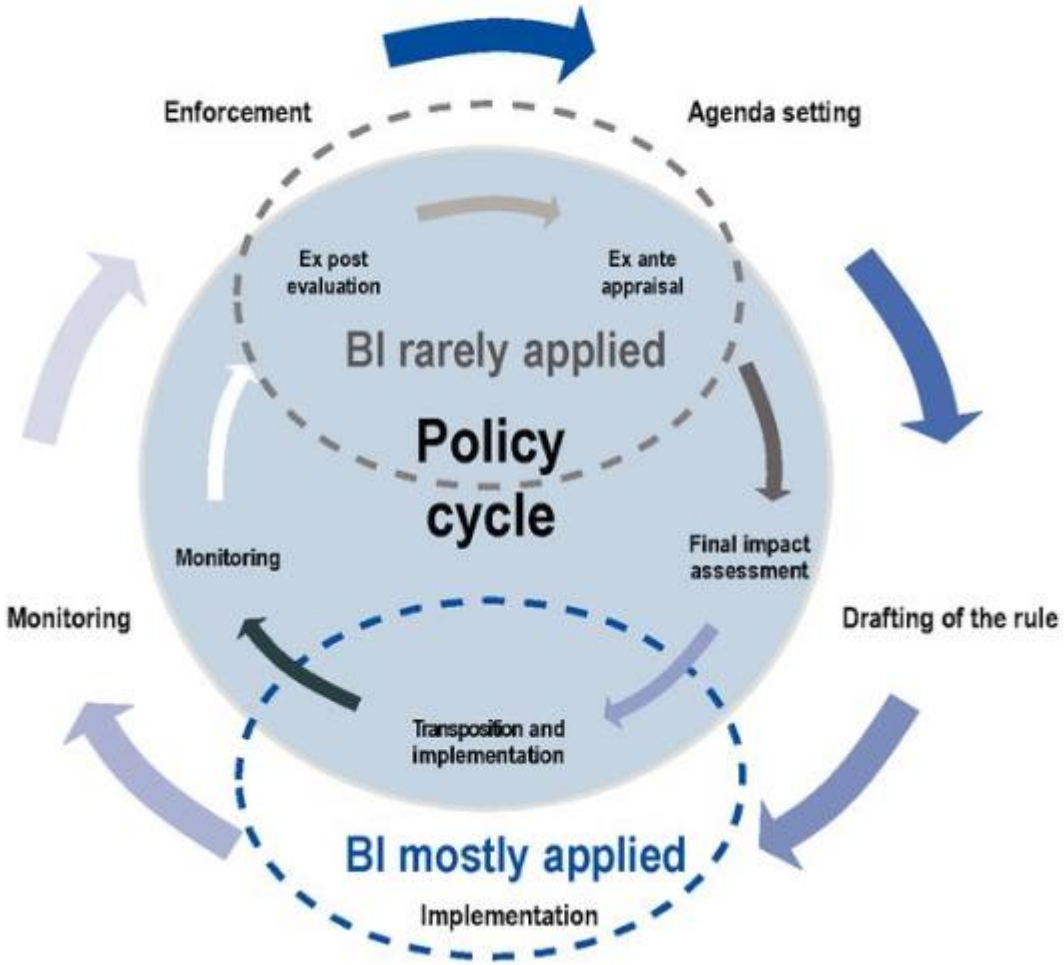
Incongruent 2

Source: Lochbuehler et al., (2017)

There are many other areas

- Financial decision making
- Under and over-nutrition
- Medical services
- Physical activity
- Housing
- Education
- Inequality
- Environmental decision making
- …

Figure 3.1. **Behavioural insights and the policy cycle**



Source: OECD

Concluding thoughts

- These are not simple problems and do not have simple solutions. This is where experimental research offers and advantage.
- Experiments can tell us what does work ***and*** what doesn't.
- If we can't show a change in behaviour in perfect conditions in a lab then it is unlikely it will be found in a messy, real-world setting. Triangulation important.
- Pre-testing involves admitting uncertainty but offers the promise of greater certainty and a scientific foundation for better policy.