

Running experiments in innovation and growth policy: what can we learn from recent experiences?

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5 November 2018

Outline

1. Motivation
2. Lessons from recent experiments
3. Lessons on experimenting
4. Conclusion

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€150 billion
spent every year on
innovation,
entrepreneurship and
business growth
support programmes
in Europe alone

But little credible
evidence on what
works, and what
doesn't

All Support Schemes

Good evaluations
can change people's
minds and lead to
better decisions

But most impact
evaluations are not
credible



14740
evaluations

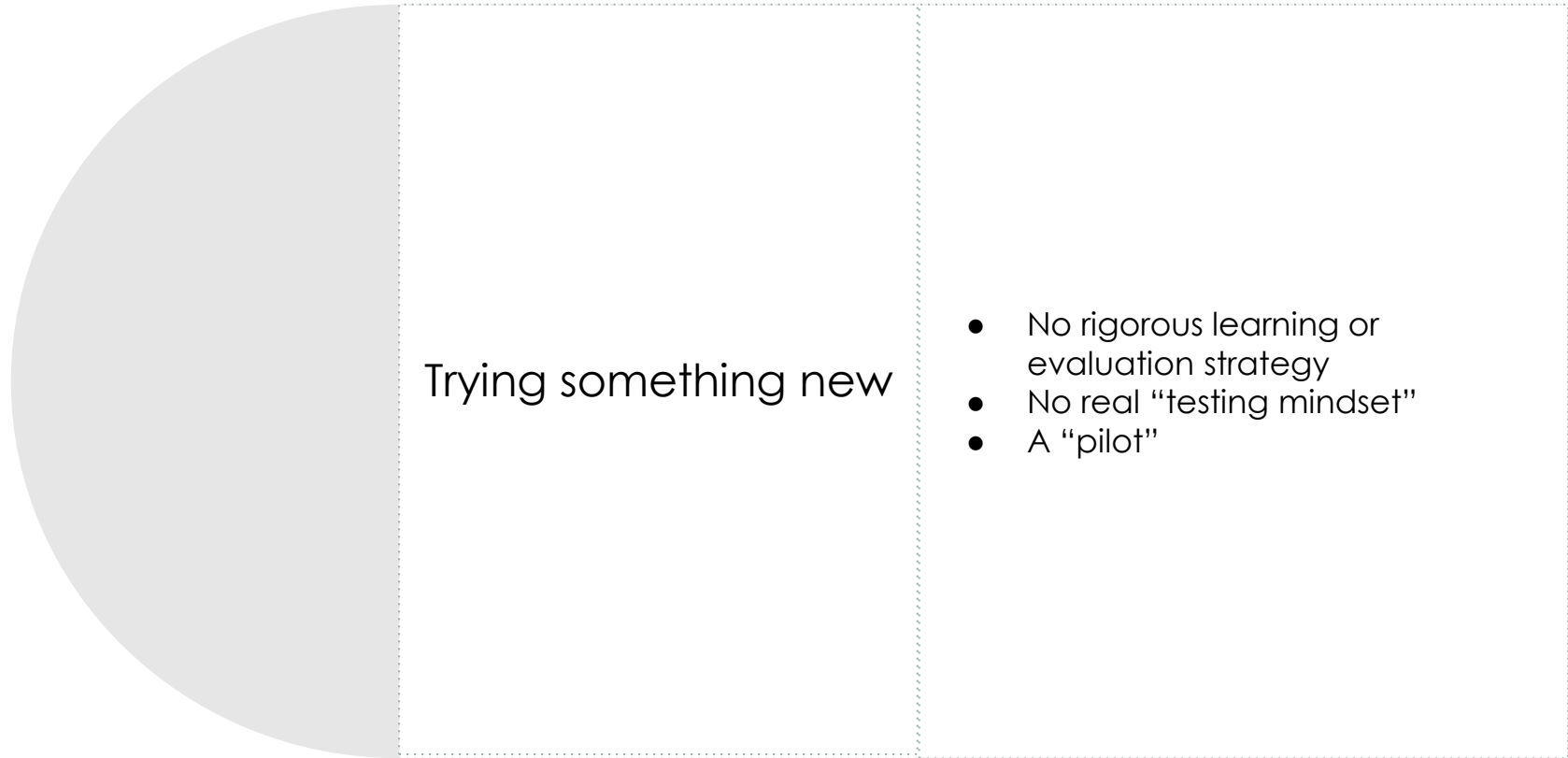
Credible (2.4%)

+ Impact (0.6%)

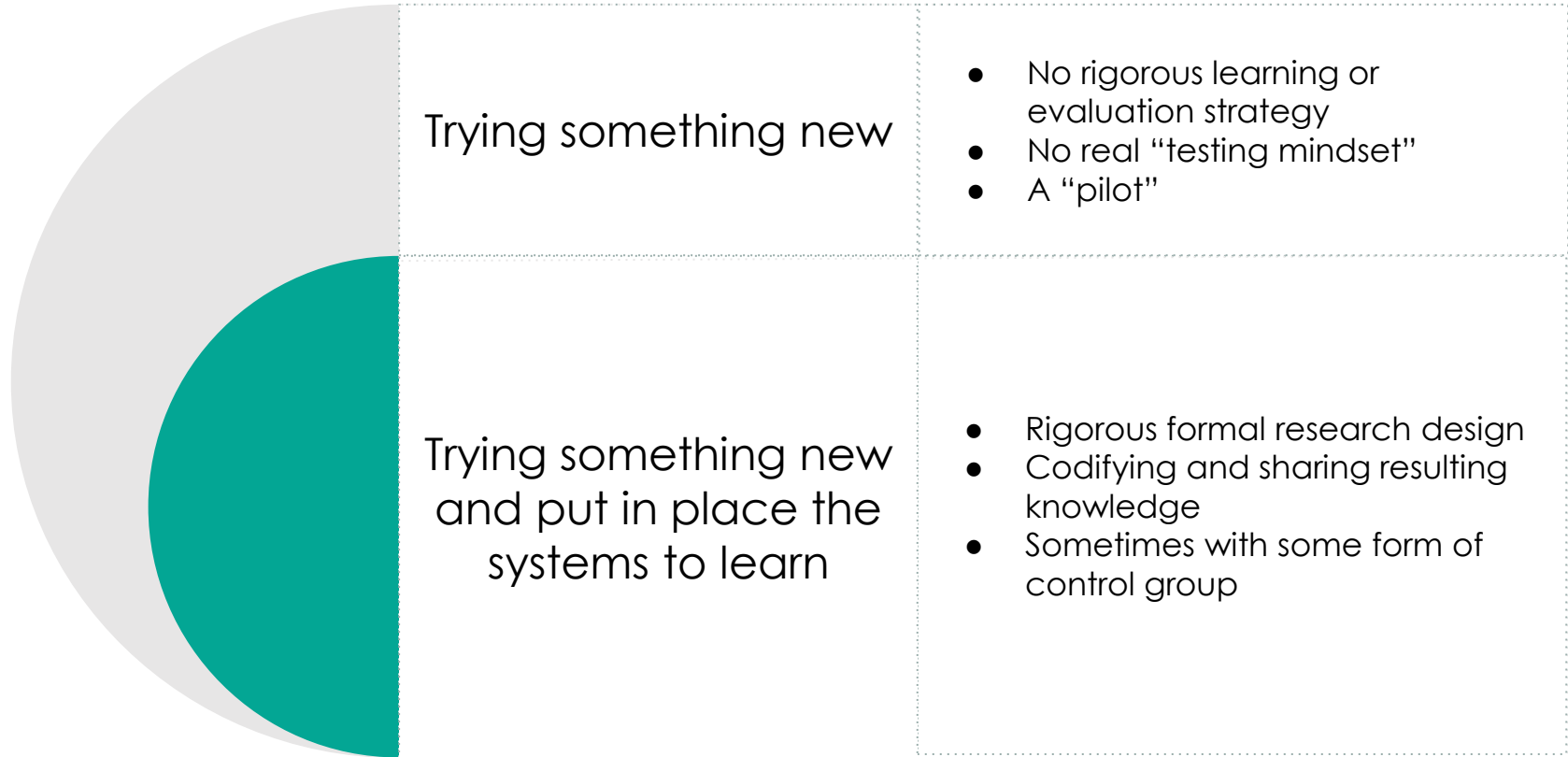
Three ingredients for delivering good policy



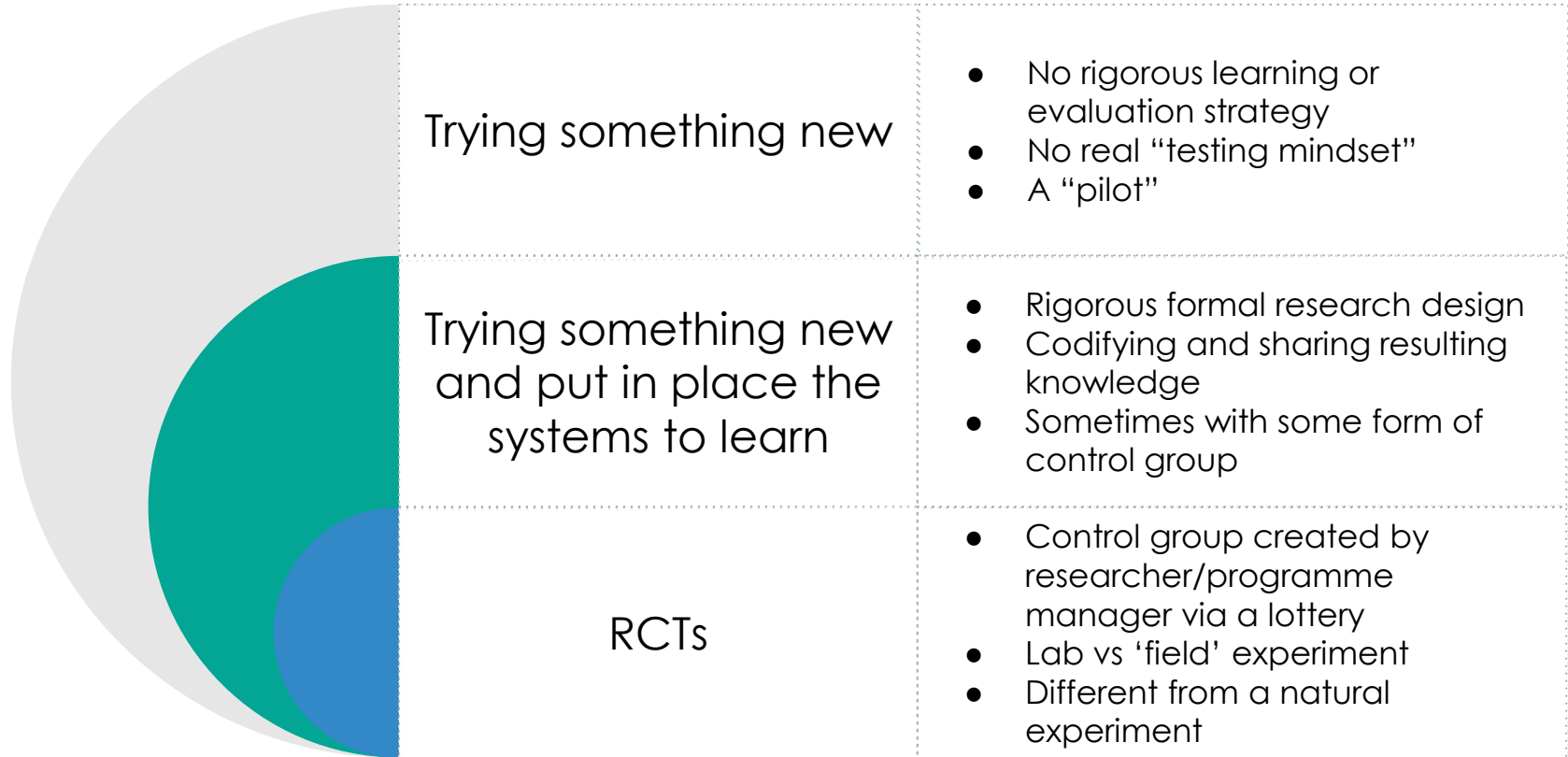
What is really an experiment?



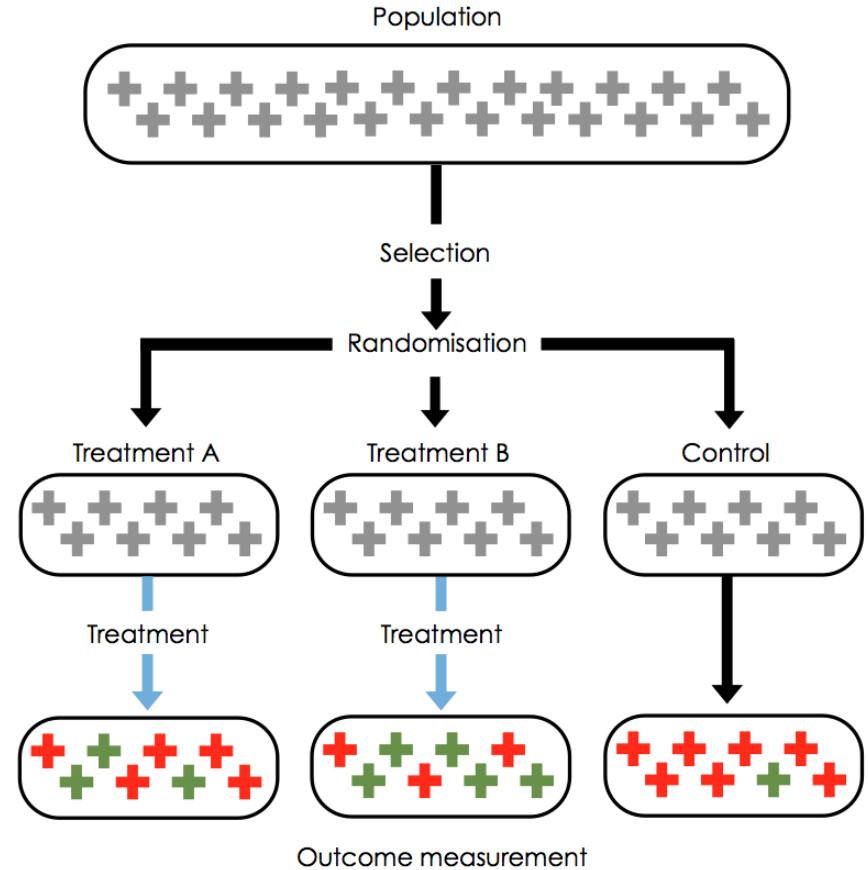
What is really an experiment?



What is really an experiment?



What is a randomised controlled trial (RCT)?



Today

1. Focus on RCTs
2. Give examples across policy challenges & solutions
3. Discuss some of what we've learned about experimenting

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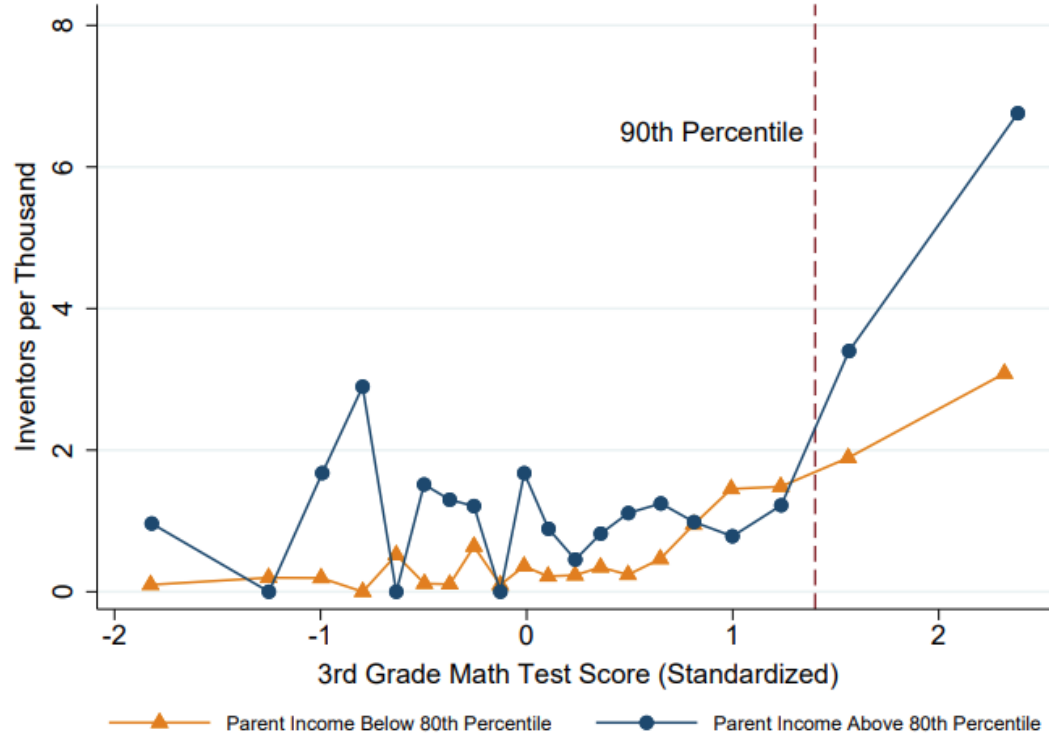
1. Making innovation more inclusive
2. Supporting innovators
3. Funding innovation

The 'lost' inventors

Bell, A, R Chetty, X Jaravel, N Petkova, J Van Reenen. 'Who Becomes an Inventor in America? The Importance of Exposure to Innovation' (forthcoming)

The 'lost' inventors

A. By Parental Income



Increasing exposure to innovation

- K Moberg (forthcoming): online entrepreneurship for 9th graders
- World bank trial to expose 19,000 high-school to STEM & entrepreneurship
- Role models might also address this issue, as shown in a trial with students by Bechtold & Rosendahl Huber (2018); and previously on entrepreneurs (Lafortune & Tessada, 2015)

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Incentivising
more
people to
take part in
innovation

Foster 'Intrapreneurs' –
Weitzel & Rigterig
(forthcoming)

Incentivising students to join
an innovation contest –
Graff Zivin & Lyons 2018

1. Making innovation more inclusive
2. **Supporting innovators**
3. Funding innovation

Fostering collaborations

Among scientists:

- i. 90 minutes sessions increase probability of collaborating by 75% (Boudreau et al 2016)
- ii. Impact of co-location? (Catalini & Ganguli, forthcoming)

Among businesses:

- i. Regular meetings of business owners increased revenue by 8%, profit, innovation, partners and management (Cai & Szeidl 2018)

Collaborations between firms and universities/R& D organisations

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Innovation Vouchers

- i. Dutch innovation vouchers (Cornet et al 2006)
- ii. Nesta's Creative Credits (Bakhshi et al 2015)
- iii. Innovation Vouchers (Rosendahl et al forthcoming)

Training:

- i. Can workshops train academics and industry participants to co-innovate? (Giones, forthcoming)

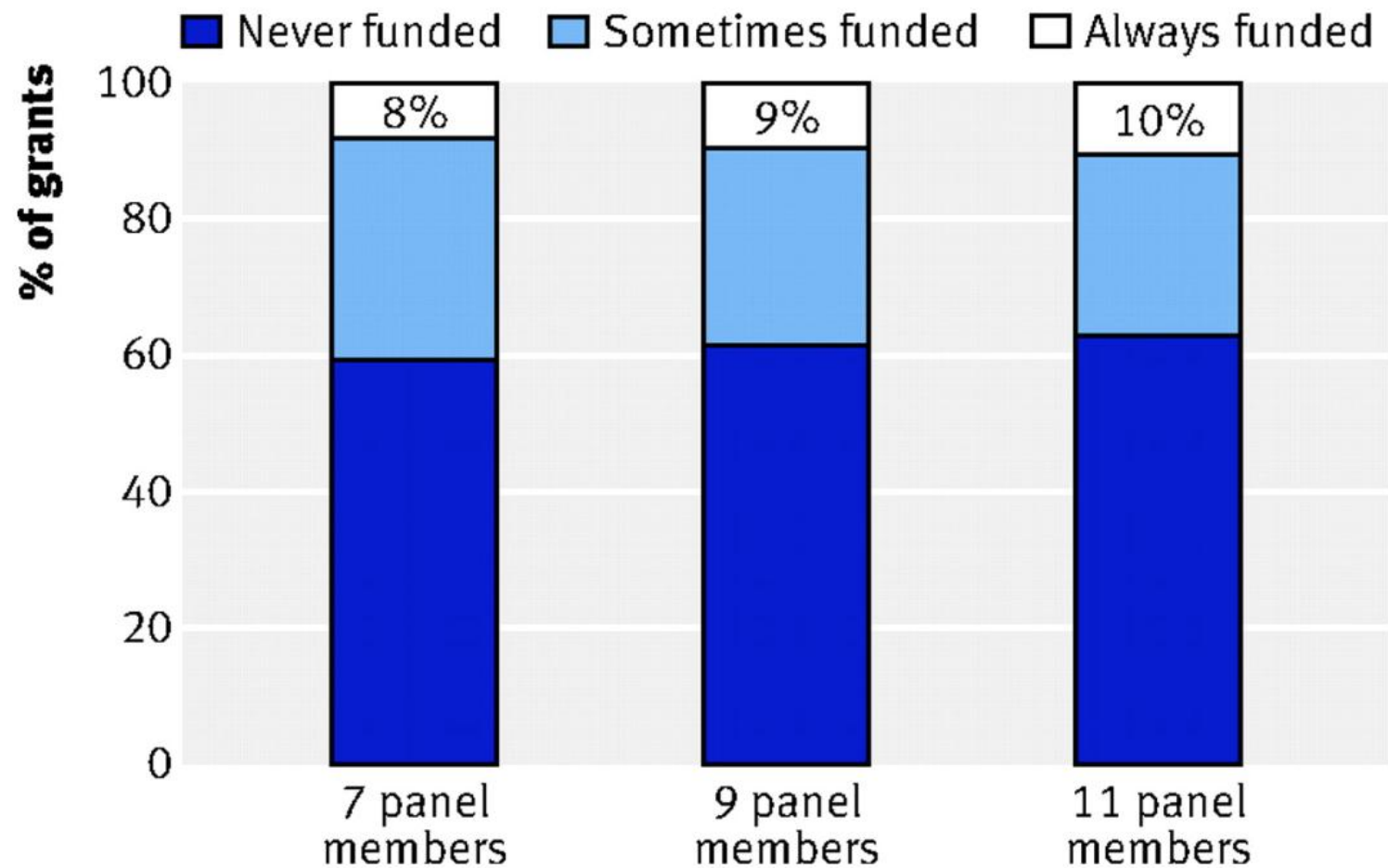
Training entrepreneurs

Training entrepreneurs

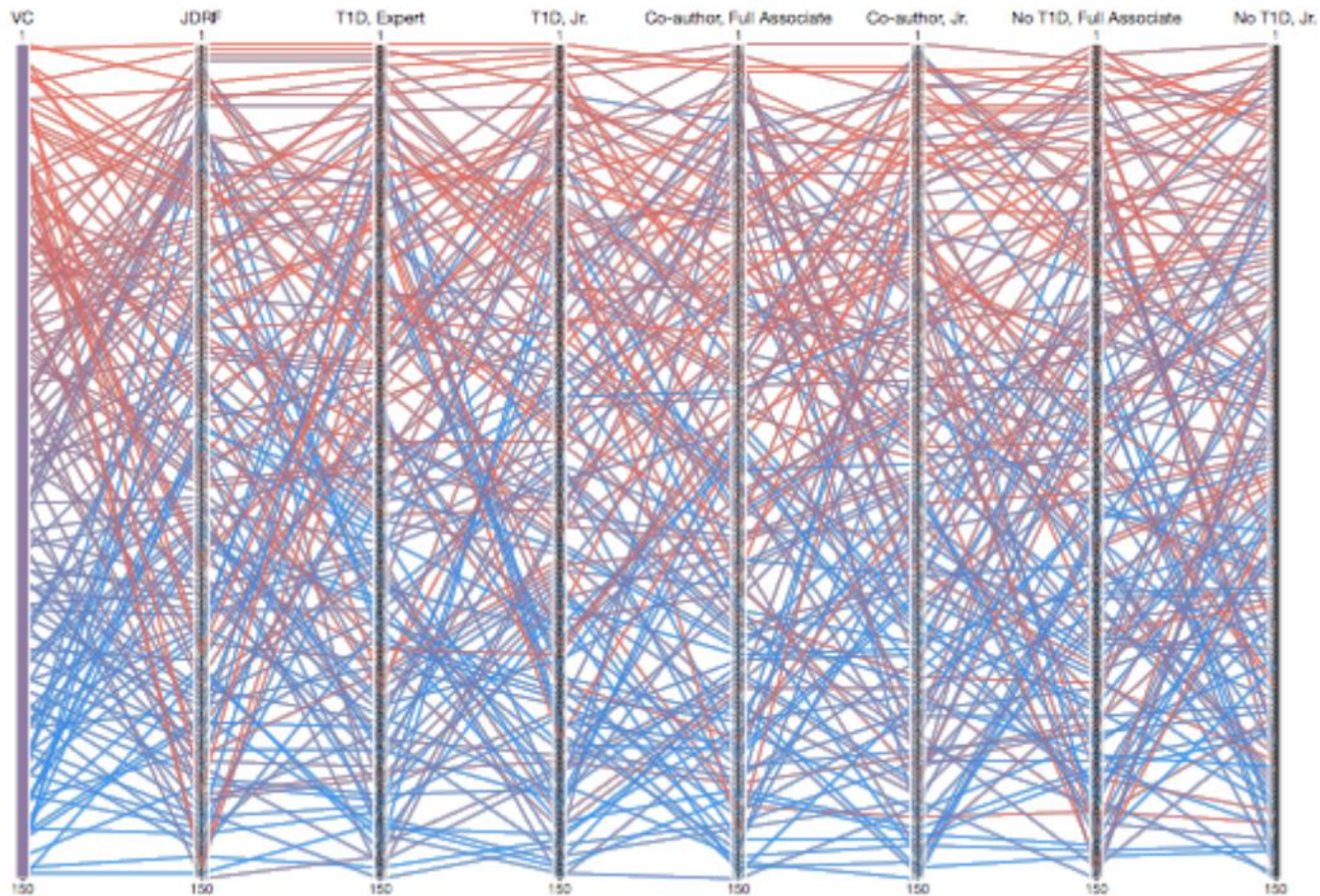
- World Bank trial in West Africa: **traditional business training vs non-cognitive skills** (mindset, entrepreneurial behaviour) (Campos et al, 2017)
- Similar replication in Jamaica (Ubfal & Maffioli, forthcoming)
- Zooming in on key elements: 'scientific mindset' (Camuffo et al 2017); 'structured accountability' (Leatherbee, forthcoming)
- The power of feedback (Wagner 2016)

1. Making innovation more inclusive
2. Supporting innovators
3. **Funding innovation**

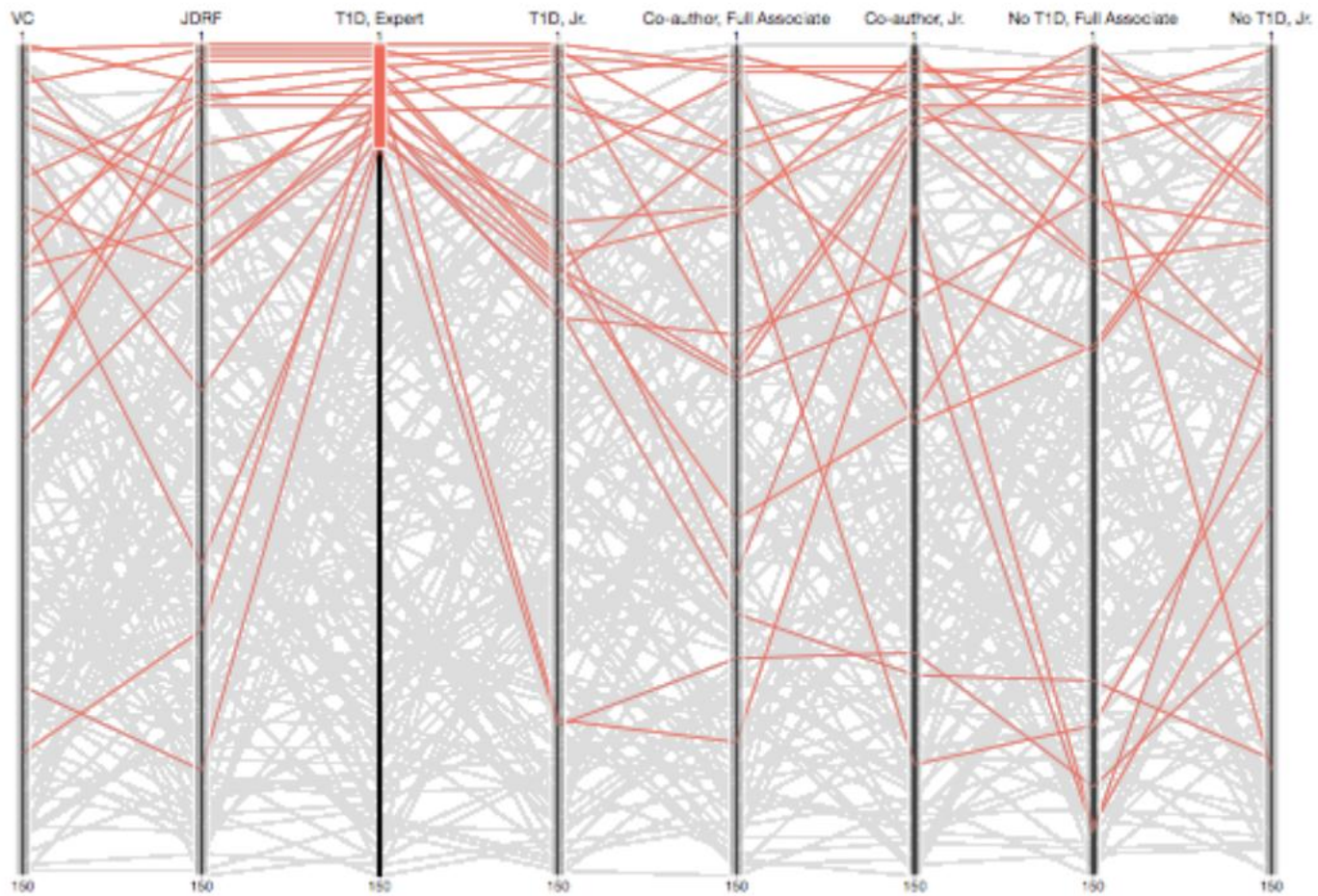
How much noise is there in
grant-funding decisions?



Source: Graves et al 2011, BMJ



Source: Boudreau et al 2016



Source: Boudreau et al 2016

Grant- funding decisions

- i. Boudreau et al
2016 – varying
'intellectual
distance'
- ii. Iacovone et al
(forthcoming)

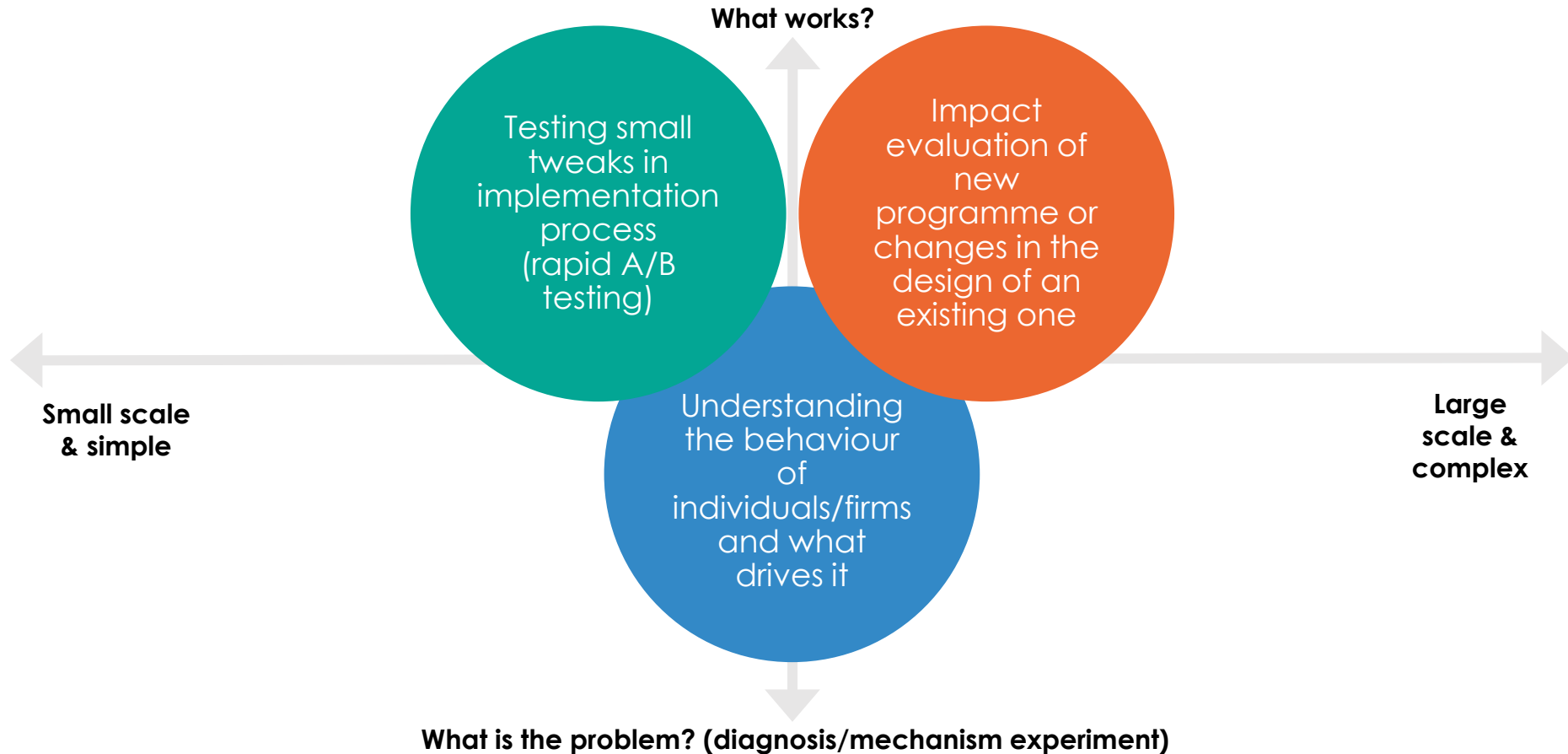
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Some lessons on experimenting in the wild

1. Experiments can take many different forms
2. Messaging trials are a good entry point for policy organisations
3. Experimentation in government needs a change in mindset
4. New types of data & focus on outcome

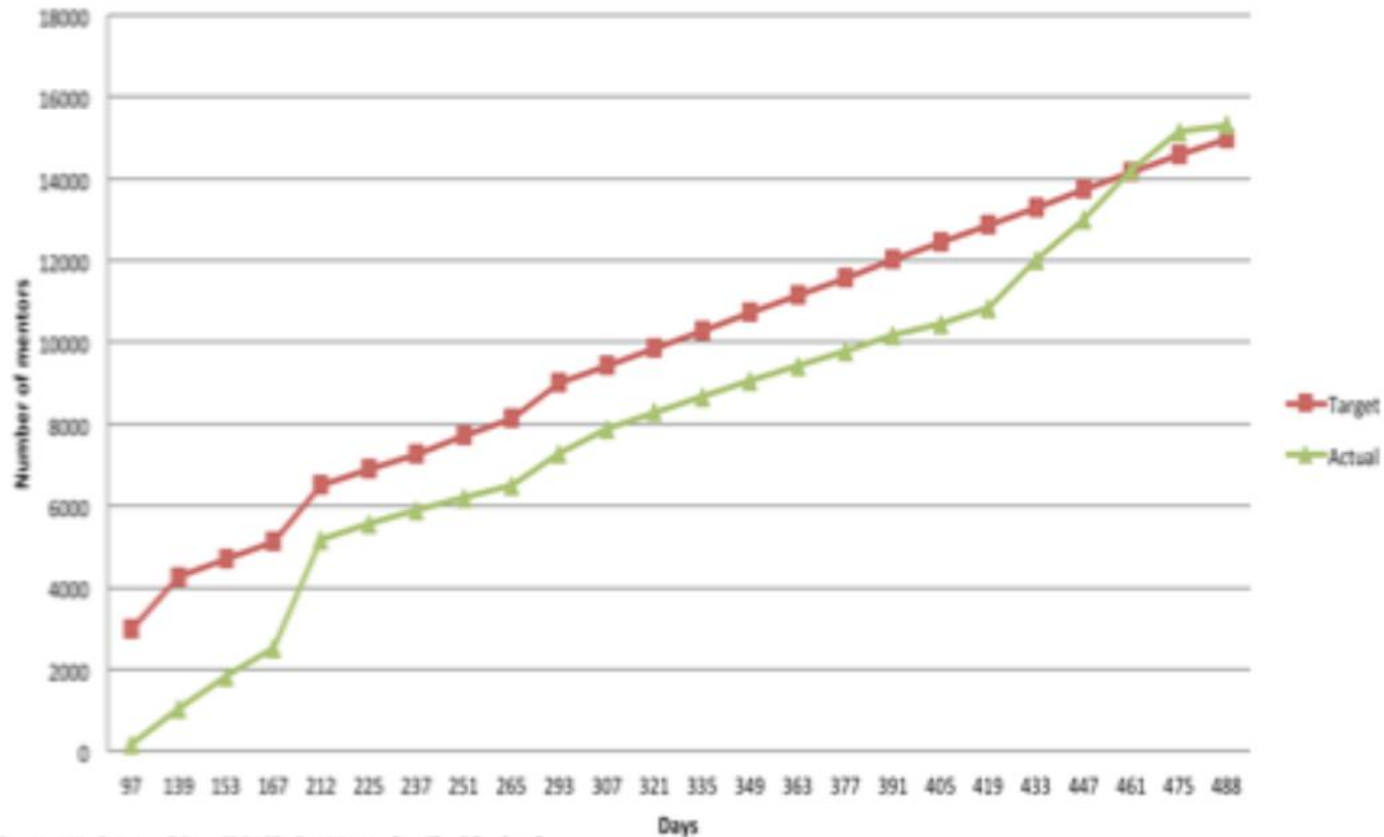
There are multiple ways to use trials



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Comparison of target and actual number of trained mentors



Source: Hudson and Sear (2013), Get Mentoring Final Evaluation

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- RCTs are one tool in the toolbox
- RCTs can be very useful in demonstrating impact
- Small tweaks can sometimes have strong impact
- RCTs have strong *internal validity* – but that doesn't get you *external validity* (not unlike other methods)

Thank you!

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Growing adoption of experimentation



Increasingly, more governments and organisations are using policy experiments

J-PAL is founded at MIT to reduce global poverty. To date, they have run over **900 trials** in **75+ developing countries**

France creates an Experimentation Fund for Youth to fund RCTs that test youth support policies

The UK launches the 'Education Endowment Foundation', which to date has funded **130 trials** with **900.000 pupils** in UK schools

Finland and Canada PMs make experimentation a key political goal, with a PM's experimentation office and mandating dedicated budgets



Education
Endowment
Foundation



Department for
Business, Energy
& Industrial Strategy

2003

2009

2011

2014

2015

2016

2017

2018

IGL is launched as a **global partnership of government agencies and ministries** based at Nesta

The UK's Dept. for Business launches 'Growth Vouchers', a **£30M RCT** to evaluate business support provided to almost **30,000 SMEs**

The European Commission launches a new **€4M call** for innovation agencies to test new pilots using RCTs

The UK's Dept. for Business launches 'Business Basics', a **£8M fund** for RCTs on innovative ways to encourage tech diffusion for SMEs