

## The Innovation Growth Lab

Driving policy impact through experimentation, data and evidence

The Innovation Growth Lab (IGL) is a global policy lab for more impactful innovation and productivity policies



## About us

IGL is a **global policy lab** that helps governments develop more effective policies to increase innovation and productivity.

We are on a mission to foster productive, sustainable, and inclusive economies through novel **policy ideas**, **experimentation**, **data and evidence**.

We work with policymakers, researchers, practitioners and funders to address key policy challenges in the fields of science, innovation, entrepreneurship and business policies.

To advance our mission, IGL brings together a network of leading governments and foundations who share our vision - the IGL Members.





# A global collaboration

IGL is a global collaboration launched in 2014 in partnership with a group of governments and foundations. We are a **non-profit** organisation run by a core team based at **Nesta** and the **Barcelona School of Economics.** 

We span the boundaries of policy and research.

Our IGL Members include leading institutions that support our mission, and the IGL Research Network has over 250 researchers working on experimental research in this field, including the IGL Scientific Committee members:

Nick Bloom Stanford Business School | Dietmar Harhoff Max
Planck Institute for Innovation & Competition | Karim Lakhani
Harvard Business School | Josh Lerner Harvard Business School
| Fiona Murray MIT Sloan | Mark Schankerman LSE | Scott Stern
MIT Sloan | John Van Reenen LSE | Reinhilde Veugelers
KULeuven | Heidi Williams Dartmouth





























How do we get to better policies?

# How do we get to better policies?

We need policies to be effective, efficient and equitable, but it is hard to identify new ideas and know what works best.

Governments spent billions in programmes but rarely invest in policy R&D to ensure that they are as cost-effective as possible.

At IGL we help build more effective organisations, programmes and policies.

Agile

Experimental

Data-driven

Evidence-based



# Our approach to impactful policies

Policymakers often face challenges without clear solutions. Many options are considered but typically only one is taken forward. Under pressure to act, this is usually an existing approach.

Could other options have proved more effective? Could new solutions be explored? If so, how can we tell which ones work?

IGL helps organisations to develop and test new ideas systematically, putting in place structures to enable learning and drive impact.

## **Traditional approach**

Launch a large programme without prior small-scale testing, with one design and the hope that it will work



## Experimental test and learn approach

Start small, trial different designs systematically, learn what works to increase impact and scale it up



## Experimentation can be used in different ways

#### USE

**Diagnosis**: to identify the underlying causes and mechanisms that justify and inform policy interventions

#### **EXAMPLE**

**Research collaborations**: Do "search costs" limit collaborations? An experiment <u>showed</u> how facilitating face-to-face interactions amongst researchers in the same research department would increase collaborations.

Researchers were 75% more likely to collaborate

**Optimisation**: Testing small tweaks in implementation process (rapid fire A/B testing)

More effective messages: the UK Business & Innovation Ministry has run a <u>range</u> of 'nudging' trials, for example experimenting with the wording of emails encouraging people to apply for support programmes.

Additional 9000 applicants from one messaging trial

**Evaluation**: Impact evaluation of new programme or changes in the design of an existing one



Innovation vouchers: <u>UK</u> and <u>Dutch</u> trials enabled by use of lotteries to allocate oversubscribed vouchers. Both experiments show vouchers supported innovation, with the Netherlands trial also showing long term performance benefits.

25% more innovation collaborations in first year (UK)

## Transforming organisations for impact



Output focused counting activities

Conservative "why change?" mindset, no space for new ideas

Static rigid, set-and-forget, change is the exception, inertia

Fear of failure doing things differently is risky

Overconfident single solution, assume answer

Risk-averse risk is to be avoided...(even if this actually more risky)

Learning by accident unplanned, ad hoc, unused

Information poor no data infrastructure or skills

Weak evaluation what participants did or said

Closed protective, insular, limited external engagement

Impact focused measuring outcomes

Curious "what if" mindset and culture

Dynamic change is the norm

Accept failure no innovation without risk

Experimental explore multiple paths, test answer

Risks managed take small risks to avoid large risks

Learning by design intentional, continuous, used

Data rich real time, internal activities and external ecosystem

Robust evaluation what impacts were caused

Collaborative good ideas, evidence and partners outside

Several governments are embracing this

Setting up experimentation funds	i
Building internal capabilities and cultures	(

**Establishing dedicated** 

teams and units

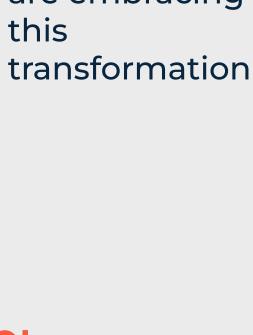


Canada committed to devote a fixed percentage of programme

funds to experimentation, and also included experimentation as a

Finland established the Prime Minister's Office Experimentation Unit

to oversee experiments across the government, and more recently the UK's government Metascience Unit seeks to test and improve





## Mandating experimentation **Running experiments** in-house

core principle in their new innovation agency. The UK government has made <u>Test & Learn</u> a core component to deliver its missions. Many governments are setting up experiments to improve the design of their programmes and evaluate their impacts. These testing) and larger-scale impact evaluations.

## Strengthening and leveraging their data infrastructure

include both testing small-scale operational tweaks (e.g., A/B The European Innovation Council organised a datathon to engage academic researchers to apply the latest data science methods on its data. The <u>UKRI's data sandpit for metascience</u> allowed

researchers to co-create novel research projects using UKRI data.

## IGL is accelerating this transformation globally





Collaborated with over 50
government agencies worldwide to
help them become more
experimental and data-driven,
supporting them to set up their first
experiments and institutionalise the
role of experimentation

Supported over 70 policy experiments in 28 countries, demonstrating the feasibility and value of experimentation in this policy space

Successfully campaigned for the creation of experimentation funds, with both the EU and the UK launching dedicated funding calls for experiments in innovation and business programmes, supporting many organisations to set up and run their first experiments

Reached thousands of policymakers from over 45 countries with our capacity building workshops, events and online resources

Seeded a growing global
community of policymakers and
researchers engaged in
experimentation in this field,
enabling many new collaborations

## What we do



We are pioneers in bringing a data-driven, experimental approach to innovation and growth policy, and have built a global community of actors working in this space.

To achieve our mission, we:

#### Help institutions become experimental

by supporting them
to build skills to
engage in
evidence-based
decision-making,
from ideation to
design and
implementation



# Drive experimental research

by conducting and supporting pilots and RCTs to develop and test ideas and help decide when it is time to adapt, scale or move on



#### Leverage data science & innovation mapping

by creating and using new data sources, methods, and visualisation tools and techniques to inform current and future policy



# Analyse & influence policy

by researching and assessing relevant policy trends, and advocating for an experimental approach to policymaking



#### Convene learning communities

by creating opportunities for exchange and learning between policymakers, researchers, practitioners and funders



## Make evidence more actionable

by collating, analysing and sharing policy ideas and evidence with partners and our policy and research networks





# Our work spans **science, innovation, entrepreneurship** and **business policies**, with 4 priority policy challenges

## Science and innovation funding

Improving how science and innovation funding mechanisms are designed and managed



## University-industry collaboration

Bridging the gap between university and industry to accelerate science commercialisation and drive societal impact



## Inclusive innovation

Creating more inclusive innovation systems and recovering lost innovative potential



## SME technology adoption

Exploring how policy can help businesses to adopt new technologies and practices to boost productivity and transition to net zero





## The IGL team

Our core team are experts in innovation, entrepreneurship, productivity and business growth policy, with backgrounds in government and academia. We are experienced in working with government agencies and organisations aiming to become more experimental and data-driven, and have strong networks with policy and research communities.

### Our wide range of skills include:

- → Experimental research methods
- → Data science and innovation mapping
- → Policy analysis and development
- → Design and facilitation



IGL

Overview & examples of our work

## Experimental organisations



We've supported 50+ government agencies to set up their first policy experiments and helped build capacity through training

## Embedding experimentation in the EU Framework Programme



We are <u>collaborating with DG RTD</u> to incorporate policy experimentation as a pillar in the next Framework Programme, supporting the EU missions by testing different approaches to increase citizens' engagement, and developing an EU Community of Practice for R&I policy experimentation.

#### **IGL** Impact Accelerator

The <u>IGL Impact Accelerator</u> builds experimental capacity by helping organisations turn a current challenge or opportunity into an experimental pilot. Through a unique combination of collaborative workshops and personalised support we have supported over 20 organisations across five editions in becoming more experimental and improving their impact through evidence.

#### **Experiment! Task Force**



We supported innovation agencies across Europe's Taftie network to gain experience in experimental approaches through 'learning by doing'. Through a dedicated <u>two-year task force</u>, 17 agencies explored and developed ideas for setting experiments in motion within their own programmes.

## **Building experimental capabilities**



We are helping iNNpulsa use data and diagnostics to refine their flagship programme's theory of change, then co-design targeted experiments to test new approaches. The resulting evidence is leading to smarter programme design and more efficient implementation, while helping to build a lasting culture of evidence-informed policymaking.

## Experimental research



We've supported over 70+ policy experiments in 28 countries and are helping build an thriving research community

# Creating opportunities for experimental research

(e.g., advocacy, IGL Members, Initiatives, ideas banks, matchmaking)

# Capacity building and access to timely feedback

(e..g, PhD workshop, Masterclasses online training course, mentoring, CFXS, webinar series, trial designs peer review)

## **Unlocking funding**

(e.g., IGL Grants, Seed grants. experimentation funds, such as EU Innosup and UK Business Basics)

## Running experimental research projects

(e.g., optimisation experiments, impact evaluations)

## An example: The importance of heterogeneity

Multiple IGL-supported trials show that different businesses will be helped or harmed by the same intervention (and businesses themselves are not always a good judge of their needs):

- Holding founders in an accelerator more accountable for their decisions from month to month was positive for lower education levels founders but detrimental for more educated ones (<u>Leatherbee et al. 2024 & blog</u>).
- Businesses that had training focused on managerial capital (efficiency) increased sales by 18% more than those that received entrepreneurial training. But found opposite results for those with the highest growth potential: the entrepreneurial training resulted in 43% higher sales than the managerial training (Gonzalez-Uribe et al. 2024 & blog).
- Providing larger than normal loans to SMEs had highly positive effects for some businesses, but negative effects for those who took on too much risk (<u>Bryan et al. 2024</u> & <u>blog</u>).

## Data science



We aim to use data to help shape strategies and understand impacts, creating opportunities for organisations to learn from each other and for researchers to access data and generate novel insights

## ARIA Disruptive Research



We developed indicators to identify disruptive research emerging areas, misalignments between patents and publications, and key individuals and institutions contributing the most disruptive research.

## Data pilots and synthetic datathon



We developed <u>data pilots</u> using cutting-edge approaches and organised a <u>synthetic datathon</u> to enable academic researchers worldwide to use EIC data and frontier methods to address key questions.

## Benchmarking how agencies use data



The <u>benchmarking exercise</u> explored how 9 innovation funding agencies use data for decision-making and strategic operations, considering analytical methods, use cases, data processes and capabilities.

## Google DeepMind AlphaFold Impact



AlphaFold stands apart from other Al-intensive innovations in structural biology and related fields. We are estimating the impact of AlphaFold on scientific research and its contributions to positive societal change.

#### Innovation Data and Policy Network

A growing community of researchers, developers, analysts and leaders who are producing or using insights from data, data science, and Al within science, innovation, business and entrepreneurship policy to achieve positive societal change.

#### Benchmarking how agencies use Al

A project (in development) to study current and potential AI uses in innovation and business agencies, to identify challenges, facilitate peer learning, and develop best practice for safe, effective AI adoption. Reach out if interested in participating.

## Science and innovation funding



Improving how science and innovation funding mechanisms are designed and managed



The experimental research funder's handbook



We worked with the Research on Research Institute (RoRI) and its global consortium of science funders to develop a <a href="https://hon.org/nandbook">handbook</a> showcasing experimental opportunities to improve science funding processes.

Accelerator For
Innovation & ROSE RESEARCH ON RESEARCH INSTITUTE
Research Funding
Experimentation (AFIRE)

A <u>broad platform</u> to support the design, implementation and synthesis of experiments with research and innovation funding. First sprint on Al in review processes with 20+ funders.

UK Metascience Unit Experimentation



We've supported the UK's government newly created <u>Metascience Unit</u> to scope and design the first batch of experimental projects to improve science and innovation funding.

#### **NASA SBIR**



IGL helped the NASA SBIR team to build a more experimental culture and identify experimental opportunities to improve the execution of the SBIR programme, which supports innovation in US small businesses.

## University-industry collaboration

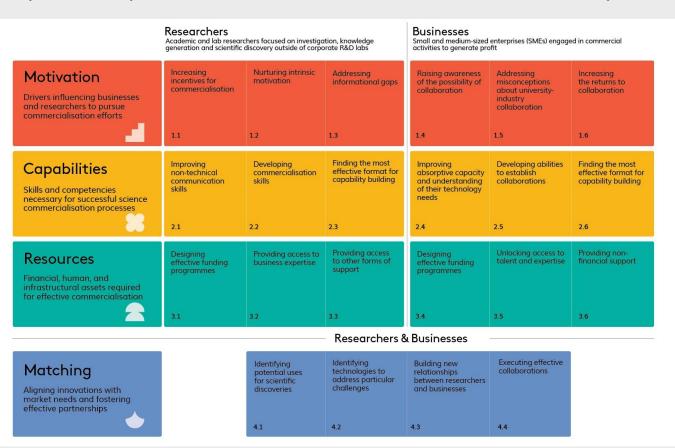


Bridging the gap between university and industry to accelerate science commercialisation and drive societal impact

# Experimenting in University-Industry Collaboration

An IGL Ideas
Handbook with over
100+ experimental
ideas to accelerate
science
commercialisation

We are working to bring together researchers, practitioners, policymakers, funders, and other stakeholders to create a vibrant ecosystem where innovative ideas are tried and scale, by developing a portfolio of experimental pilots and exploring how best to integrate AI in this process.



## Inclusive innovation & lost inventive potential



Creating more inclusive innovation systems and recovering lost innovative potential by broadening opportunities to access science and innovation careers

Lost Inventive
Potential
Experimental
Programme



#### East Kent Colleges Group

The East Kent Colleges Group is a family of six distinct colleges whose mission is to play a leading role for East Kent in developing the economic & social prosperity of the diverse communities we serve.

#### Catalyst Catalyst

Catalyst, an independent nonprofit tech hub in Northern Ireland, supports innovation and entrepreneurship, fostering an inclusive, thriving tech community



#### Social innovation for all

SI4A works with young people, schools and partners to design and deliver social innovation programmes that enable young people from ALL backgrounds to build skills, agency and opportunity

## F4S

#### Founders for Schools

F4S is an award-winning charity connecting young people and educators with volunteers who share career stories to guide future career decisions.



OneTech is a catalyst for inclusion in the startup ecosystem. They provide underserved communities with the network, skills and confidence to start and sustain a business.



LIFT (Leading Inclusive Futures through Technology) aims to build a more inclusive knowledge economy, and focuses on developing the talents of underrepresented

#### IMPERIAL

#### Imperial College London

Imperial College London is a STEM-focused university where staff and students contribute to world-class research and innovation. Their Public and Community Engagement team facilitate the involvement of a diverse range of public and community partners in the creation, application, and discussion of these developments.

**No Limits**: Innovate UK is leading efforts to make the UK's innovation system more inclusive and diverse, and break down barriers in innovation. IGL supported IUK to embed experimental principles within this programme, and to identify specific opportunities to run experiments within it.



## Citizen engagement in EU missions

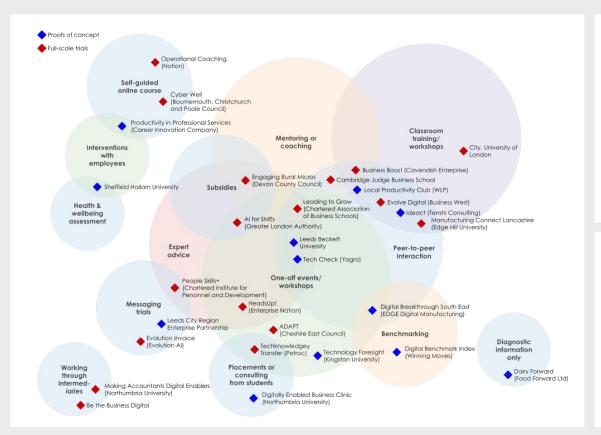


Messaging experiments to increase voting in EU's NetZero Mission Cities initiative.

## SME technology adoption



Exploring how policy can help businesses to adopt new technologies and practices to boost productivity and transition to net zero



### UK Business Basics Fund



An <u>experimentation fund</u> set up by the UK's Department for Business and Trade in partnership with Innovate UK and IGL. It has facilitated <u>32 trials and pilots</u> testing different interventions to encourage SMEs in England to adopt existing technologies and management practices.

#### Other examples:

- Net zero and productivity in SMES: overlaps and evidence needs.
- <u>Rapid evidence review</u> on policies to promote SME digital adoption.
- <u>Testing a portfolio</u> of new support services for SMEs with iNNpulsa, Colombia's innovation agency.

IGL

How we collaborate with government agencies

## IGL

## Becoming an IGL Member

By joining IGL our government members benefit from:

# Why become an IGL Member?

- Bespoke Support: Access to tailored assistance to design experimental programmes, develop data science & Al projects, or build experimental cultures.
- Knowledge Exchange: Opportunities to learn from other IGL member agencies, and tap into our broader policy and research networks.
- Capacity Building: Support in building and enhancing internal capabilities in experimentation, data science, and evidence-based policy-making.
- Collaborative Projects: Participate, shape and learn from IGL's portfolio of projects addressing common challenges shared among our government members.





# Who can become an IGL Member?

The IGL Membership is open to organisations that:

- Design, conduct and/or evaluate policies and/or programmes related to science, innovation, entrepreneurship, business, industrial, and/or economic policy.
- Interested in building and/or supporting more agile, experimental, data-driven and evidence-based cultures, capabilities, programmes and/or policies.
- National, regional and local government departments, ministries and agencies as well as foundations and international organisations.





# Individual support

Our partnership with each member is a collaborative journey, not a one-size-fits-all: a joint policy R&D lab for discovering what it takes to make policy more impactful.

We help members explore policy ideas, develop theories of change for their programmes, build more experimental capabilities within their organisations, adopt data science methods, set up new research collaborations, learn from the latest academic research, scope opportunities for projects, and execute more successfully.

We often work as a confidential 'behind the scenes' partner on live policy development, providing a safe space to explore new ideas. Our support is therefore flexible and responsive, from a quick call to a deep project collaboration, designed to help you build capabilities and turn your policy challenges into tangible and effective action.

"One-to-one support has helped us to establish and frame ideas, and the IGL team is never lacking on suggestions and methods that could be employed. Working with the IGL on our Innovation Vouchers trial enabled us to run our first full-scale RCT, working with leading experts who we otherwise wouldn't have been able to engage with."

**Dan Hodges**, Deputy Director - Strategy, Innovate UK



Individual support examples



experimentation. The journey started with simple A/B tests, and since then it has embedded experimentation in its work programme, secured EU funding for major trials with new innovation schemes, and continues to experiment with new ideas at different stages of development.

IGL has helped Austria's FFG become a recognised leader in



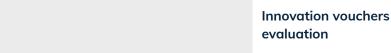
Business Basics programme development

What started as a review of the evidence on SME tech adoption barriers evolved into a deeper collaboration that went from ideation to action. Based on insights from that initial work, we helped the UK government design and deliver a groundbreaking <u>national programme</u> to test new ways of supporting small business productivity.



Al adoption experiment in funding competitions

IGL helped a member agency ensure its new AI decision-making tool would succeed in improving its process for allocating funding. Our support spanned the technical (improving the AI model), the human (addressing barriers to adoption), and the evidential (designing an experiment to measure its real-world impact).



IGL helped Innovate UK set up a randomised controlled trial to evaluate its innovation vouchers programme. We scoped and designed the trial, and then matched the project to researchers from the IGL Research Network. They conducted the analysis and published an <u>academic paper</u>. We're now assessing the long term impact of the vouchers.







## IGL Members: Peer learning and networking



### **Inspiration Sessions**

IGL runs regular sessions to share insights from projects and explore topics of common interest to members. In the last year, sessions have been run on topics including: making the most of business-university collaboration; inclusive innovation; the strategic use of data; future innovation agencies; and learning from failure.

NSPIRATION SESSIONS
By IG! [continue]

#### **Peer Groups**

IGL runs peer learning groups to bring together individuals from across our member organisations. It is a space for practical exchange and collective problem solving, focused on priority topics identified by our members.



#### **Accelerator Programme**

IGL runs an accelerator programme for members that combines group workshops with personalised support and 'office hour' time to help participants develop experimental ideas to a stage where they could be taken forward and implemented.



### **Member Learning Days**

In our last edition in Barcelona, over two days IGL Members took a deep dive into shared challenges in relation to building experimental organisations, explored common policy questions and evidence needs, and created space for peers to build new connections and learn from the experience of others.



## Impact Accelerator

The Impact Accelerator gives members the tools to drive greater impact through experimentation. Through collaborative workshops and personalised support, participants learn together as they plan an experiment tailored to a specific policy challenge, turning theory into a tangible plan to improve outcomes.

#### What participants said:

"It has definitely helped shape our openness to experimentation levels and ability to create more effective interventions using the theories we learned about."

#### Scottish Enterprise.

"Our overall engagement with IGL has been brilliant – the team have been incredibly helpful and are always willing to support/give up their time to help us. The workshops were great – was good to use the learning on our practical example."

#### Innovate UK.

Projects taken through the accelerator include:

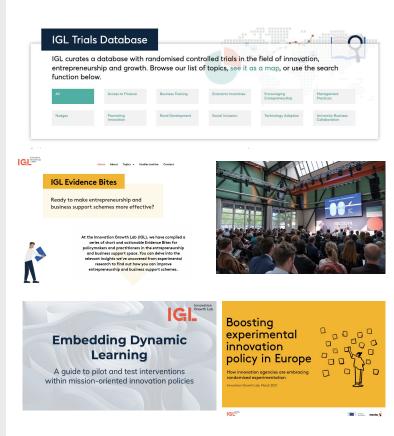
- Exploring ideas for smarter and fairer ways to allocate innovation funding for maximum impact, including designing a pilot of using a lottery to allocate funding amongst high scoring proposals.
- 2. Redesigning innovation support to be more customer-focused by bundling funding with expert advice and simplifying the application journey from start to finish.
- Helping businesses go global by developing options to test a proposed adjustment to public support for boosting export sales by encouraging investment
- 4. Tackling the challenge of SME tech adoption by first using evidence to understand the biggest barriers, then designing a support programme to overcome them and testing different methods to promote and implement interventions.



# Advancing the state of the art

As a non-profit organisation, IGL seeks to generate evidence, build capacity and develop networks and resources that create global public goods and advance good practice globally. The funding we receive from our members also supports this work, which includes:

- → Developing initiatives addressing key policy challenges.
- Building a global community of policymakers and researchers that contributes to advance this mission.
- → Organising events and meetings, including the flagship IGL Global Conference.
- → Producing toolkits and <u>guides</u> to help develop skills and knowledge.
- → Collating new policy ideas, <u>experiments</u> and <u>evidence</u> in this field.
- Writing publications, blogs and newsletters that share policy-relevant insights and evidence, including our monthly newsletter.





## IGL Membership practicalities

- All members are represented at the IGL Steering Board, which meets quarterly and oversees our work.
- IGL Members collectively decide what member-wide activities and projects IGL undertakes.
- Members make an annual contribution as part of a 3-year renewable agreement. This funds individual and group support activities, as well as IGL's public good work to develop and spread best practice.
- IGL is a non-profit initiative and all funding received is devoted to advancing its mission.





IGL

Other ways to collaborate



## Capacity building

IGL has developed a range of workshops for organisations interested in learning how to improve their use of evidence, experimentation, data science and AI in their activities.

The content, level, duration, and format can be adapted to the organisation's needs.

## Examples of modules include:

- Introduction to policy experimentation
- Challenge-based ideation sessions
- Designing and conducting RCTs
- Data science methods for science, innovation and industrial policy
- Theory of change development



1-day face-to-face introductory workshop to policy experimentation with ideation session and trial design work



Capacity building and ideation online workshop series for Latin American government agencies working on digital transformation

#### TAL TECH

One-week intensive training programme on novel data science methods for industrial and innovation policy

## Advisory & consultancy



We regularly support government agencies and other organisations to:

- Identify opportunities to design more impactful programmes
- Build experimental cultures
- Define theories of change
- Set up policy experiments
- Develop data science & Al projects
- Facilitate peer learning
- Undertake other types of research and advisory activities

































National Research Council Canada Conseil national de recherches Canada

















# Project support & sponsoring

Contribute to create global public goods that benefit policymakers and researchers worldwide by sponsoring activities (such as events) and/or supporting projects addressing key challenges (e.g., research projects, peer learning activities, or evidence reviews).





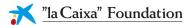


















# Experimentation funds

We collaborate with governments to set up and deliver experimentation funds that identify, develop and test new policy ideas and programmes in order to find more cost-effective approaches to address a particular policy challenge.

For example, we supported the <u>UK</u>
<u>Business Basics Fund</u> and the <u>EU</u>
<u>Innosup</u> experimentation funding call.





# Joining an IGL initiative



IGL initiatives bring together leading organisations, researchers, practitioners and funders to ideate, develop, test and scale cost-effective solutions to address key challenges, such as:

- Accelerating science commercialisation and business-university collaboration.
- Broadening access to science and innovation careers to build more inclusive ecosystems.













# Sign up to our newsletter



www.innovationgrowthlab.org
@IGLglobal
innovationgrowthlab@nesta.org.uk

**Hosted by** 





With the support





