Experimenting in University-Industry Collaboration

An Innovation Growth Lab Ideas Handbook

IGL Innovation Growth Lab

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Glossary

This glossary provides definitions of key terms and concepts to help readers navigate the vocabulary associated with experimentation and bringing scientific innovations to market.

Additionality
The extent to which an intervention leads to outcomes that would not have occurred in its absence.

Business lab
A dedicated environment where entrepreneurs and researchers can develop, test, and refine business ideas and products.

Directionality
The strategic focus or intended direction that public R&I policies seek to guide within the broader innovation ecosystem.

Equity gap
The difficulty that early-stage, high-potential businesses, particularly, face in accessing sufficient equity investment to scale their innovative ideas or technologies.

Experiment
A systematic method for testing hypotheses or exploring innovations in a controlled setting.

Professor's privilege
Legal concept in some countries in which academic researchers, typically professors, retain the ownership of intellectual property (IP) rights to their inventions or discoveries, rather than the institution they work for. This allows them greater control over the commercialisation of their research.

Intellectual property (IP)
Legal rights that protect creations of the mind, such as inventions, designs, trademarks, and literary or artistic works. IP laws grant creators exclusive rights to use, commercialise, or license their innovations, ensuring they can benefit from their ideas and prevent unauthorised use by others.

Knowledge valorisation
The process of translating research and innovation into practical applications, creating economic or societal value and benefiting businesses, policymakers and wider communities.

(Behavioural) Nudges
Subtle interventions or cues designed to influence people's decision-making and behaviour without restricting their choices, often by altering the environment or presenting information in a way that steers them towards a desired outcome.

Randomised controlled trial (RCT)/Randomised experiment
A type of experiment in which units are randomly assigned to different forms of an intervention (known as 'treatments') or to a control group.

Self-efficacy
The belief in one's ability to succeed in specific situations or accomplish tasks, influencing motivation and performance.

SME (small or medium-sized enterprise)
A business that meets certain size criteria, typically regarding employee count, revenue or balance sheet. For example, in the EU, an SME is defined as a business with fewer than 250 employees as well as an annual turnover not exceeding €50 million or an annual balance sheet not exceeding €43 million.

Science commercialisation
The process of turning scientific research and discoveries into marketable products and services.

Technology transfer office (TTO)
University unit responsible for managing the commercialisation of research outcomes, including securing intellectual property rights, licensing technologies, and facilitating partnerships between researchers and industry to bring innovations to market. TTOs are also known as Technology Licensing Offices (TLO) or Valorisation Units, among other terms.

University-industry collaboration
Partnerships between academic institutions and businesses to drive research, innovation and knowledge exchange.

Urban lab
A real-world testing environment within a city where researchers and businesses experiment with new technologies and solutions for urban challenges.

The handbook

The handbook is a compilation of feasible experimental ideas in different areas of university-industry collaboration to tackle the common barriers that hinder the journey from discovery to invention to innovation.

What it is

This handbook is an ideas bank of experiments in university-industry collaboration. It sets out areas for intervention and provides realistic experiments to address them. It presents a wide range of experimental ideas, intentionally mixing small-scale experiments that are easier to implement with more ambitious larger-scale experiments that could still be conducted within a particular institution. System-level experiments would also be valuable, but are more difficult to set up so have not been included here.

The handbook aims to meet policy practitioners' appetite for ideas, learning and evidence generation. Policymakers and programme implementers are facing increasing political demands to exploit the potential of university-industry collaboration, while also needing to meet a rising burden of proof to fund their activities. This puts programme designers and implementers in need of direction and expertise to address these simultaneous goals, which this handbook aims to help with.

The handbook aims to illustrate what could be feasible rather than covering all potential ideas. There are many other opportunities for experiments than those listed here, so we invite readers to use it as a first step to explore what experiments might be best to address the challenges their institutions are facing.

The ultimate goal of this handbook is to catalyse an increase in the use of experiments to improve the success of university-industry collaboration initiatives. It does so by providing structure, ideas and examples. As policymakers and implementing organisations become more comfortable with experimentation, they will increasingly identify opportunities to use experiments to optimise or evaluate their activities. This handbook aims to be an instrument to advance that process.

Who it is for

This handbook is written with policymakers, policy implementers and intermediaries working in university-industry collaboration in mind, as well as academic researchers. These actors can all influence the ecosystem from different points of leverage. Policymakers can embrace experimentation as an approach to improve the impact of their university-industry collaboration initiatives; for them, this handbook shows where experimentation can realistically be expected. Policy implementers tasked with developing, executing and evaluating programmes, will get specific direction about how they can practically experiment to bring policy priorities to fruition. For intermediaries in university-industry collaboration, such as technology transfer officers at research institutions, the handbook provides ideas and direction to apply the scientific method not just to develop technologies but to advance them to the market as well. Finally, for academic researchers looking to advance an impactful body of knowledge in university-industry collaboration, this handbook gives them clarity over policy priorities.

How to use it

The handbook is structured around a matrix of **key issues**, which target researchers and businesses along four major areas of intervention:

Motivation | Capabilities | Resources | Matching

For each key issue, the handbook describes the challenges, presents proposals for experiments to address them and includes examples of existing experiments and programmes where experiments could be applied.

The challenge of university-industry collaboration

University–industry collaboration can help bridge the gap between groundbreaking discoveries and marketable products or services. While scientific research is primarily driven by the quest for knowledge, industry seeks to translate that knowledge into practical innovations that can impact society, stimulate economic growth, and address global challenges. However, this process is fraught with complexities and barriers.

Efforts to promote university–business collaboration have grown, yet these initiatives frequently face challenges such as misaligned goals, cultural differences, and limited resources. Navigating the complex landscape of intellectual property, funding, and regulatory requirements further complicates the path from lab to market. As a result, many promising scientific discoveries struggle to achieve their full commercial potential.

There is also still very limited evidence on the effectiveness of the different types of activities undertaken by research institutions and innovation funders. This is in part due to the limited use of robust counterfactual evaluation methods, such as randomised experiments. Innovation scholars have undertaken much research to improve our understanding of the different challenges and enablers of university–industry collaboration, but have typically used qualitative case studies or cross-sectional analysis of quantitative data.

Players in the ecosystem

The university-industry collaboration ecosystem is composed of numerous key players, each contributing to the chain from discovery to market. Researchers and academic institutions generate new knowledge and innovations. Technology transfer offices facilitate the transition of research into commercial opportunities, managing intellectual property and licensing. Investors, including venture capitalists and angel investors, provide funding for start-up founders and entrepreneurs. Industry partners – large and small – offer market expertise, scalability and identification of business needs. Government bodies and policymakers create supportive frameworks and provide funding and regulations. Collaboration among these players is essential for successful university-industry collaboration.

Valorisation channels

The channels for commercialising knowledge and discoveries are numerous, each structured differently and requiring specialised skills to choose from and execute effectively. Some channels start from a new scientific breakthrough while others are driven by specific business challenges. Certain approaches follow the traditional technology transfer route, whereas others focus on broader knowledge valorisation activities, drawing from technological developments to social scientific insights. We have identified seven types of valorisation channels with distinct characteristics, as shown in the table on the **next page**.

Valorisation channels

	Prerequisites	Formalisation method	Execution	Results
Spin out New company formed to commercialise university research or technology innovations	Entrepreneurial & technical skills Funding Business model IP	Incorporation	Financing Product/service development Operations Sales	New company New products/services
Technology licensing Granting rights to use university-developed intellectual property for commercial purposes	IP	License agreement	Exploitation of technology through use and/or sales	Company benefits Compensation for licensing
Joint research Collaborative projects between academia and industry to develop new technologies	Research scope definition Relationship	Contract	Research for improved problem understanding, and/or solution testing	Solution and/or new process/product (with shared IP)
Contract research Industry-funded research conducted by universities to address specific commercial challenges	Scope definition Relationship	Contract	Attempt to solve specific problem of company	Solution to predefined industry problem (without shared IP)
Consultancy Expert advice provided by academics to businesses for commercial innovation	Problem definition Relationship	Contract	Think through problem with specialised knowledge	Summarising report
People movement Academics transferring to companies or company employees transferring to labs	Expertise	Employment contract Secondment agreement	Application of specialised knowledge	Knowledge incorporation into research or companies
Knowledge diffusion Spread of academic research and expertise through informal interactions, training or publications	Research outputs Expertise Absorptive capacity	None	Knowledge sharing and absorption	Knowledge incorporation into companies

Why experiment?

Policymakers often face challenges without clear solutions. Many options are considered but typically only one is taken forward. Under pressure to act, this is often the existing approach, even when there is little or no evidence of the chosen option's effectiveness. As a result, new policies or programmes frequently fail to deliver the expected outcomes.

Experimentation is the process of trying new approaches and testing them to learn whether they work. Testing at a relatively small scale enables policymakers and programme implementers to generate evidence about the impacts of an intervention before deciding whether to scale it up or whether additional work is needed.

Experimentation promotes innovative solutions to policy challenges, fosters a culture of continuous improvement, and helps de-risk the process of exploring new programme ideas. Although it may involve a slightly higher initial investment in learning and evaluation, experimentation can reduce overall costs by enabling organisations to end ineffective programmes early on. By exploring alternative approaches, it also helps identify options that deliver the same, or even better, outcomes in a more cost-effective manner.

While there are various ways to learn from policy experiments, randomised controlled trials (RCT) are the proven method to test interventions, build robust evidence, and help to improve the design of programmes. RCTs are widely used in many policy areas, such as health, education or social policy, but have been less commonly applied to innovation policy, despite their potential.

Randomised experiments (RCTs) involve randomly assigning units – whether individual people, businesses, research groups, or other entities involved in the programme – to different forms of the intervention, or (in some cases) to a control group that does not receive an intervention at all. This random assignment makes it unlikely that there are any systematic differences between the groups, both in terms of obvious, observable characteristics (such as gender, age, and qualifications) and more subtle, unobservable traits (such as motivations, experience of entrepreneurship, attitudes to risk, and so on). As long as the sample is sufficiently large, this means one can be confident that any differences in outcomes between the groups are a result of the interventions being tested.

How to experiment

Experimentation can be used to:

- **Test the effectiveness** of a policy or programme, by comparing it to a control group that does not (yet) have access to the programme. For example, several studies have evaluated whether innovation vouchers promote collaborations between businesses and external knowledge providers [1] [2]. In these experiments, businesses applying for an innovation voucher were randomly selected either to receive the voucher or to a control group that did not receive vouchers; then the collaborative activities of the two groups were followed over subsequent years.

- **Optimise** the design of a programme, by comparing different variations in how it is implemented, or testing the extra value generated by including additional components in the programme. For example, this could involve comparing online and in-person delivery of a training course or testing different messages to attract applicants.

- **Probe the assumptions** underlying a policy or programme **or the mechanisms** by which it works. For example, in a survey of academic researchers, a study team mentioned different rewards or incentives to different groups of respondents to see how this affected their willingness to engage in a collaboration outside academia [3]. This revealed useful information about researchers' motivations to be involved in commercial partnerships and other outside work.

Although experimentation is a key element of the scientific method, it has not yet been widely used in efforts to improve the commercialisation of technologies and discoveries or to promote university-industry collaboration. However, it is both feasible and valuable. The pre-conditions necessary for experimentation are all present in this policy space: interventions often target numerous individuals (e.g. researchers) and organisations (e.g. companies), meaning that experiments can be based on large samples; there is a diverse range of programmes, such as learning modules, business development support and funding allocation, among others; and interventions are often delivered in an institutionally centralised manner through intermediaries like technology transfer officers and innovation agencies. This policy space is therefore well-suited to systematically test different interventions to learn and scale the most cost-effective ones to promote university-industry collaboration.

A key consideration when implementing an experiment is that it needs to be planned for from the start of a programme. Unlike more traditional forms of programme evaluation, randomised experiments cannot be set up retrospectively. Although this implies an additional set of factors to consider at the programme design stage, those involved in implementation have often appreciated that this challenges them to think through the details of how their programme is designed and the results it is intended to have. This can result in more effective programmes being carried out, even before the experiment itself starts to generate learnings.

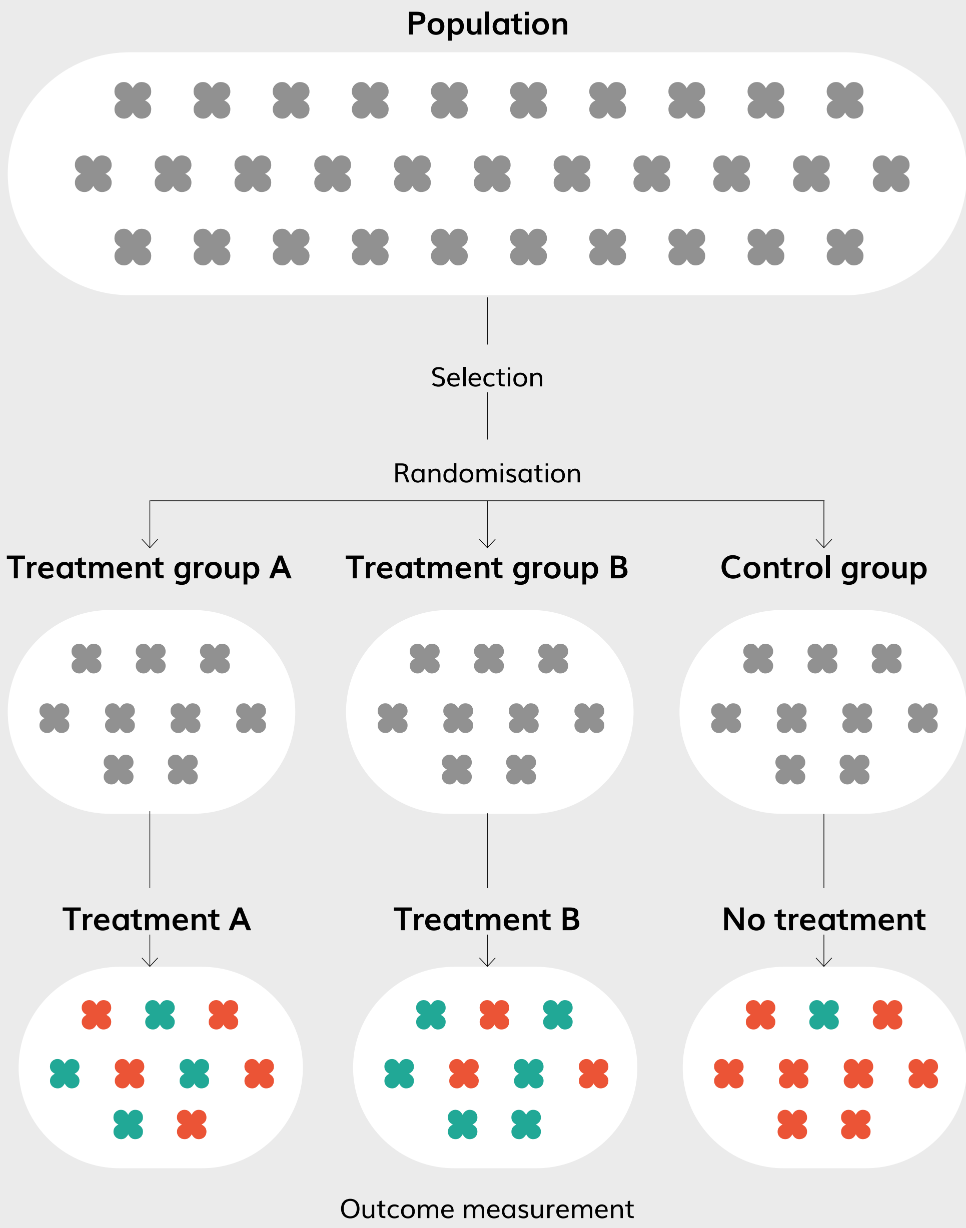
Read more

1 Cornet, M., Vroomen, B., & van der Steeg, M. (2006). Do innovation vouchers help SMEs to cross the bridge towards science?

2 Kleine, M., Heite, J., & Rosendahl Huber, L. (2022). Subsidized R&D collaboration: The causal effect of innovation vouchers on innovation outcomes. Research Policy, 51(6), 104515.

3 Sormani, E., Baaken, T., & Van Der Sijde, P. (2022). What sparks academic engagement with society? A comparison of incentives appealing to motives. Industry and Higher Education, 36(1), 19–36.

Experimental design example



Overview of key challenges

The key issues matrix presents key challenges in university-industry collaboration. It is the result of research interviews and workshops with relevant stakeholders, which identified important policy and programmatic challenges.

The framework groups the interventions around the challenges they address – relating to motivation, capabilities, resources, or matching – or the actors they target – researchers or businesses, or both.

Some of the experimental ideas proposed focus on interventions that target academic researchers and researchers at non-corporate labs (corporate researchers operate according to company R&D goals and are well embedded within those processes). Other experimental ideas focus instead on interventions targeting businesses, particularly small and medium-sized enterprises (SMEs), as these often face more difficulties to collaborate with universities. And some experimental ideas target both sets of actors simultaneously.

Interventions regarding researchers' Motivation target intrinsic motivations to engage in science commercialisation and extrinsic motivations, as well as misunderstandings or misconceptions. On the business side, interventions target awareness and incentives.

Interventions addressing Capabilities target researchers' non-scientific communication skills and business skills. For businesses, these capacity-building interventions tackle their ability to stay up-to-date on scientific discoveries and to identify their technological development and partnership needs.

Because capacity-building interventions such as training can take many forms (online vs. offline, intensive vs. spread out, one-to-one vs. group support) and target multiple actors, they lend themselves especially well to experimental initiatives. It is for this reason that, for each target, finding the right way to engage them in training is an area of discovery of its own.

When Resources are being addressed, there are three dimensions that affect both actors: access to funding (for commercialisation or business R&D), access to human resources (e.g. business expertise, IP lawyers) and access to infrastructure and other forms of non-financial support (e.g. research labs or urban labs).

Challenges around Matching commonly target both researchers and businesses simultaneously and include finding uses for technologies, developing technologies for pre-existing challenges, establishing and building trusting relationships between actors, and developing successful collaborations.

The following pages describe these issues one by one and proposes experimental ideas to address each of these challenges.

Key issues matrix

	Researchers Academic and lab researchers focused on investigation, knowledge generation and scientific discovery outside of corporate R&D labs			Businesses Small and medium-sized enterprises (SMEs) engaged in commercial activities to generate profit		
Motivation Drivers influencing businesses and researchers to pursue commercialisation efforts	Increasing incentives for commercialisation 1.1	Nurturing intrinsic motivation 1.2	Addressing informational gaps 1.3	Raising awareness of the possibility of collaboration 1.4	Addressing misconceptions about university-industry collaboration 1.5	Increasing the returns to collaboration 1.6
Capabilities Skills and competencies necessary for successful science commercialisation processes	Improving non-technical communication skills 2.1	Developing commercialisation skills 2.2	Finding the most effective format for capability building 2.3	Improving absorptive capacity and understanding of their technology needs 2.4	Developing abilities to establish collaborations 2.5	Finding the most effective format for capability building 2.6
Resources Financial, human, and infrastructural assets required for effective commercialisation	Designing effective funding programmes 3.1	Providing access to business expertise 3.2	Providing access to other forms of support 3.3	Designing effective funding programmes 3.4	Unlocking access to talent and expertise 3.5	Providing non-financial support 3.6

Researchers & Businesses

Matching Aligning innovations with market needs and fostering effective partnerships	Identifying potential uses for scientific discoveries 4.1	Identifying technologies to address particular challenges 4.2	Building new relationships between researchers and businesses 4.3	Executing effective collaborations 4.4

Motivation

This section examines motivation-driven interventions to enhance university–industry collaboration. For researchers, it explores strategies to increase incentives and foster intrinsic motivation. For businesses, it highlights approaches to raise awareness of collaboration opportunities and improve understanding of their benefits, facilitating more effective engagement between both sectors.

Increasing incentives for commercialisation

1.1

Theme

Motivation | Capabilities | Resources | Matching

Target

Researchers | Businesses

Academic institutions continue to prioritise traditional metrics like publications and grants in academic careers, offering limited incentives for entrepreneurial activities. Working on industry problems may have a higher real-world impact but not lead to top journal publications. The end of professors' privilege in European countries has further reduced incentives and added complexity to commercialisation with the involvement of universities in the process.

Enhancing financial rewards for commercialisation may motivate researchers to engage in commercialisation activities by increasing their stake in the financial outcome, which may be done by exploiting existing or new patents and tackling researchers individually or as a group.

A potential experiment

Would increasing researchers' share of licence income increase the likelihood that patents get commercialised?

University TTOs could identify a number of patents in their portfolio that after a certain period of time have not yet been commercialised, and could randomly allocate them to three groups. For the first set of patents, the inventor would be allocated a larger percentage of licensing income if the patent is commercialised within a certain timeframe. For the second group, the university would give back the patent to the inventor, who would get 100% of any potential licence income. The third group would serve as the control group, with no financial incentive for the inventor. The experiment would track differences in commercialisation rates within the three groups over a period of time, as well as changes in the licensing conditions and licensees' characteristics.

Other possible experiments

Monetary incentives for invention disclosures

Offer a bonus for each invention disclosed to the TTO that leads to a patent. This payment could be an advance on the inventor's potential license income or an additional reward.

Monetary incentives for post-patent commercialisation

Test the impact of giving inventors a bonus, beyond licence income, for ongoing support during commercialisation.

Individual vs. group incentives

Explore reallocating licence income shares as research funding for the inventor's lab, rather than to the university or the individual.

Career incentives for commercialisation

Increase the emphasis on successful commercialisation (patents, licences, spin-offs) in academic promotion criteria through informational sessions or by adjusting promotion rules.

Workload reduction

Experiment with interventions that reduce teaching hours in exchange for additional time spent in commercialisation activities.

Nurturing intrinsic motivation

1.2

Theme

Motivation | Capabilities | Resources | Matching

Target

Researchers | Businesses

Researchers' strong attachment to their academic identity and vision of industry as a career backup plan might hinder their motivation to engage in commercialisation. But an emphasis on personal satisfaction and the desire to make an impact can become important non-financial drivers for researchers to turn scientific discoveries into practical applications. Institutions can foster this by creating environments that celebrate commercialisation, offering industry collaboration opportunities, and providing mentorship from successful academic entrepreneurs. Emphasising the personal fulfilment and significance of translating research into real-world solutions helps researchers see commercialisation as a core career aspect, aligning their passion with professional goals and overcoming the inertia of traditional academic values.

A potential experiment

Would emphasising the social impact of science commercialisation (rather than its potential economic profitability) increase researchers' willingness to engage in commercialisation and/or change the profile of researchers getting involved?

A university TTO could test different email framings for promoting commercialisation activities, such as an information session or training course. Researchers would be randomly assigned to receive emails emphasising either profit motives or social impact motives. The experiment would measure initial engagement with the emails and subsequent enrollment in the sessions or courses. It would analyse differences in engagement levels and intentions between groups, and assess whether different messaging influences the type and composition of researchers who participate. This could potentially involve investigating which messaging best promotes engagement from groups that are typically underrepresented.

Other possible experiments

Messaging experiments to normalise the idea of commercialisation

Design messaging experiments that encourage engagement in commercialisation through:

- Relatedness, influencing scientists' perceptions that this is aligned with their identity and that they have the basic competencies required to be successful.
- Peer effects, showcasing other similar academics' success.
- Making the knowledge transfer mandate of the university more salient.
- Perspective-taking towards potential beneficiaries of the commercialisation.

Peer mentoring

Test whether peer mentoring from scientists with commercialisation experience outperforms traditional expert mentoring to develop a taste for industry among scientists. The expectation is that this method would result in higher intrinsic motivation and persistence in the exploration of opportunities for science commercialisation.

Addressing informational gaps

1.3

Theme

Motivation Capabilities Resources Matching

Target

Researchers Businesses

Researchers often do not have access to the knowledge and resources needed to navigate the complex process of bringing innovations to market. Many researchers misunderstand or lack awareness of commercialisation opportunities, funding sources, or the steps required to patent and licence their discoveries. This knowledge gap can hinder their ability to effectively engage in commercialisation efforts. To overcome these barriers, institutions can provide targeted training, clear guidelines, and access to experts in technology transfer. Bridging these informational gaps can empower researchers to confidently pursue commercialisation, maximising the impact of their scientific work.

A potential experiment

Do informational interventions to address misconceptions increase the motivation to participate in commercialisation activities?

Randomly assign a group of researchers to an informational session aimed at addressing misconceptions about commercialisation, such as perceived bureaucracy, low success rates or lack of institutional support. A control group would not be invited to the session. An indicator of the initial effect would be whether the researcher goes on to register for a follow-up session with the TTO to explore potential commercialisation. Mid- and long-term outcomes could include industry collaboration, invention disclosures, patent registration, and licensing. Impacts across different types of researchers could be compared, such as those based in research groups with and without prior commercialisation experience.

Other possible experiments

Role model interventions

Create opportunities for researchers to engage with other academic entrepreneurs who have overcome the existing barriers, as compared to more standard informational sessions on commercialisation and funding opportunities.

Roadmap

Experiment with providing a stylised roadmap to commercialisation that researchers would need to follow to help them understand and envision the steps involved, as compared to a less structured offer of services.

Experimental examples

Emphasising extrinsic rewards attracts more financially motivated entrepreneurs and deters socially motivated entrepreneurs from applying for grants

Ina Ganguli, Marieke Huysentruyt, Chloé Le Coq (2021)

How do nascent social entrepreneurs respond to rewards? A field experiment on motivations in a grant competition

This field experiment, conducted with one of the UK's largest social entrepreneur support agencies, tested how different messages affect the application behaviour and performance of nascent social entrepreneurs. A total of 431 participants were randomly assigned to receive one of three messages: a standard message highlighting the opportunity to do good (intrinsic incentive), or one of two messages emphasising either financial rewards or in-kind support (extrinsic incentive). Results showed that extrinsic incentives attracted fewer, more financially oriented applicants and "crowded out" the more prosocial candidates. The selection resulting from the extrinsic incentive cues led to worse performance despite higher initial application effort, suggesting a potential downside to using extrinsic incentives in some contexts.

A similar experiment could be set up to explore what types or messages are more effective in motivating researchers to explore commercialisation.

Female role models in science encourage girls to pursue STEM careers

Thomas Breda, Julien Grenet, Marion Monnet, Clémentine Van Effenterre (2023)

How Effective are Female Role Models in Steering Girls Towards STEM? Evidence from French High Schools

A large-scale field experiment showed that brief exposure to female role models in science positively influences high school students' perceptions and choices of STEM majors. The intervention reduced gender stereotypes and made high-achieving girls more likely to pursue male-dominated STEM fields in college. The most effective role models were those who highlighted STEM careers without focusing too heavily on the gender imbalance, leading to a more positive shift in students' attitudes and choices regarding science, technology, engineering and mathematics fields.

Similar RCTs could be set up to explore the impact of exposure to commercialisation (through role models, short programmes, or information) in researchers' choices.

Grant design influences researchers' strategies but has limited impact

Kyle Myers, Wei Yang Tham (2023)

Money, Time, and Grant Design

This study tested how research grant design influences academic researchers' strategies. Offering hypothetical grants with randomised attributes, the results showed that longer grants increased risk-taking, particularly among tenured professors, indicating that job security and grant duration are complementary. Larger grants led to less focus on speed, suggesting that competition for resources drives research pace. However, the effects of grant design on research strategies were small. Researchers also valued funding over grant duration, with money preferred over time. These findings suggest that grant design mainly impacts who applies for funding rather than how researchers conduct their work.

A similar experiment could be used to test what resources are needed to motivate academics to engage in commercialisation, such as what size of commercialisation grant would be required, what support they would need, or what license revenues they would expect, or what licence revenues would they expect.

Raising awareness of the possibility of collaboration

1.4

Theme

Motivation Capabilities Resources Matching

Target

Researchers **Businesses**

Many SMEs rely on traditional products, services, and business models, often underestimating the benefits of investing in innovation. Collaborations with researchers can drive innovation, improve products, and give SMEs access to cutting-edge technologies and expertise. Yet many remain unaware of these opportunities. Raising awareness through targeted outreach, information sessions and showcasing successful partnerships can help SMEs understand the value of research collaborations. By demonstrating how these partnerships can lead to innovative solutions and competitive advantages, companies in traditional sectors can be encouraged to embrace new approaches and enhance their growth and success.

A potential experiment

What measures are most effective in raising awareness of the possibility of university-business collaboration in SMEs?

An innovation agency could test different awareness-raising interventions on a group of innovation-active SMEs, such as those that have applied for R&D tax credits or innovation grants or have responded positively to innovation surveys. R&D or innovation managers of that SMEs in a sector or region would be randomly allocated to different outreach interventions testing different language, messages, medium and format, among others. For instance, one group could get emails or physical mailings raising awareness about science commercialisation and showcasing the resources available, and another group could be invited to an event with case studies, peer learning and/or role models. The effectiveness and return on investment of different outreach approaches could be measured through reactions to a call for action at the end of each activity, e.g. to attend a networking event at a local university or apply for an innovation voucher.

Other possible experiments

Saliency of funding availability for collaboration

Test awareness-raising interventions to draw attention to the possibility of using existing funding sources for collaboration. This could be tested in open, recurring calls – to make time for the connections to be established and explored – or in more structured calls. This might be combined with support in matching.

Showcasing relevant research groups in their region

Test awareness raising messaging that is targeted based on the content of the innovation proposals they have submitted (e.g., you are working on x, so here are are some excellent research groups in your region that also work on x).

Addressing misconceptions about university-industry collaboration

1.5

Theme

Motivation | Capabilities | Resources | Matching

Target

Researchers | Businesses

Many SMEs harbour misconceptions about collaborations with universities and research institutions, assuming that these are overly complex, bureaucratic, time-consuming, or primarily beneficial to the universities. In reality, these partnerships can offer significant advantages, including access to cutting-edge research, advanced technologies and specialised expertise. Misunderstandings about intellectual property rights, confidentiality and the alignment of goals can also create barriers. By clarifying these misconceptions through education, transparent communication and demonstrating successful case studies, SMEs can be better informed about the true potential and practical benefits of engaging in collaborative research, ultimately leading to more productive and mutually beneficial relationships.

A potential experiment

Do experiential or informational interventions work best in reducing misconceptions about university-business collaboration and increasing the engagement of SMEs?

Randomly assign innovation-active SMEs to either:

a. Receive an informational brochure

b. Get access to an online guide on collaboration

c. Be invited to a talk/peer-learning event with other businesses that have collaborated before.

d. Or be invited into the university to understand the research process and meet researchers.

The four interventions would end with a call to action to register to explore collaborations. The effectiveness of the different interventions could be compared by measuring registration numbers in each group.

Other possible experiments

Role models

Test interventions by exposing SMEs to role models, comparing the impact of peer role models (academic entrepreneurs) versus other entrepreneurs.

Awards for universities' engagement with SMEs

Introduce an award for higher education institutions by business associations based on how effectively they support small businesses. Test whether emphasising this award in communications increases SME engagement.

People-centred vs. innovation project approaches

Compare the effectiveness of people-centred approaches (universities as talent sources) versus innovation-project approaches (universities as knowledge partners) in attracting SMEs.

Trust-enhancing interventions:

Use case studies to test interventions highlighting how universities can address the four elements of trust: benevolence (acting in the interest of SMEs), integrity (adhering to agreements), competence (bringing expertise) and predictability (e.g. organising to meet deadlines).

Increasing the returns to collaboration

1.6

Theme

Motivation Capabilities Resources Matching

Target

Researchers **Businesses**

Many SMEs hesitate to engage in collaborations with universities due to concerns about whether the time and resources required justify the potential benefits. This leads to the question of how and by how much to increase the returns to collaboration to make it sufficiently attractive, with a range of possibilities. Interventions can focus on: reducing barriers through streamlined processes; clear patent and IP ownership guidelines; targeted support; prioritise lowering direct costs by offering cheaper access to specialised knowledge and expertise; centre on enhancing benefits through higher profit share for businesses in joint commercialisation endeavours.

A potential experiment

Do higher education institutions offering a broader set of support to SMEs collaborating with academics increase the number and success of those collaborations?

Randomly assign collaboration projects between researchers and businesses to include an additional package of support aimed at reducing the cost of the collaboration for businesses. This package may include management training, IP support, a case manager, IP audits for other products and/or peer learning. Compare this to a group receiving the standard level of support, such as basic assistance with research collaboration and administrative support. The effectiveness of the intervention could be measured by tracking the progress and success of these collaborations, assessed by milestones such as patent filings, product development, market entry and joint publications; SMEs' satisfaction and perceptions of the value of the collaboration could also be monitored, as well as their decisions about continuing or repeating the collaboration.

Other possible experiments

Changes in commercial terms

Test changing the commercial terms for a random set of collaborations to make them more profitable for SMEs.

Profit-enhancement vs. cost-reduction

Compare interventions centred on making collaboration cheaper and more accessible (reducing barriers or reducing direct costs) versus making it more profitable (e.g. getting more equity) to understand their relative value in incentivising collaborations.

Standard IP agreements

Test interventions to make standardised IP agreements available, to reduce friction and negotiation costs.

Experimental examples

Climate change messaging can shift innovators' attention and actions

Climate change framing and innovator attention: Evidence from an email field experiment

Jorge Guzman, Jean Joohyun Oh, Ananya Sen (2023)

A field experiment tested how climate change messaging influenced innovators' attention. Innovators were more responsive to messages highlighting imminent climate impacts or higher human costs, especially when their location or technological focus aligned with the issue. The study found that framing the urgency of climate change increased engagement, as shown by higher application rates to a technology competition. These findings suggest that targeted messaging can effectively shift innovators' attention towards climate change, potentially driving more green innovation, with responses varying by individual characteristics such as exposure to climate risks and prior climate-related work.

A similarly designed experiment could be used to test the most effective messages to nudge businesses to explore collaborations with academia.

Providing information can boost demand for business advice, but not practices

Missing Information – Why Don't More Firms Seek Out Business Advice?

Miriam Bruhn, Caio Piza (2022)

A field experiment in Brazil tested whether providing small firms with information about business practices could encourage them to seek advice and improve performance. 866 firms received an information sheet comparing their practices to others and recommending five improvements. The treatment increased demand for advice by seven percentage points over six months. However, there was no lasting impact on business practices or performance, and firms were less satisfied with their performance compared to the control group. The results suggest that while information prompts more advice-seeking, it does not necessarily lead to significant improvements.

A similar benchmarking experiment could be conducted with R&D-active businesses on their approach to collaboration with universities.

Capabilities

This section explores interventions aimed at building the skills and competencies necessary for successful university–industry collaboration. For researchers, it covers the development of non-technical communication and commercialisation skills. For businesses, it focuses on enhancing absorptive capacity and collaboration skills, ensuring both parties can effectively engage and leverage their strengths.

Improving non-technical communication skills

2.1

Theme

Motivation **Capabilities** Resources Matching

Target

Researchers Businesses

Researchers excel at identifying and filling scientific knowledge gaps, honing communication skills tailored to a specialised, academic audience. However, they may struggle to convey the value and implications of their work to non-experts, such as investors, industry partners, or the general public. Effective communication is crucial for securing funding, forming collaborations, and bringing innovations to market. By offering training in clear, concise, and persuasive communication, institutions can support researchers to bridge the gap between complex scientific concepts and practical, real-world applications, making their work more accessible and appealing to broader audiences.

A potential experiment

Would a workshop to analyse the key elements of their research from a market perspective improve researchers' ability to communicate with businesses?

Academic researchers interested in commercialisation would be invited to pitch their discoveries and potential commercial applications to businesspeople and investors. The treatment group would first attend a preparatory session focused on analysing key aspects of their discovery and learning to communicate it using market-friendly language, including business vocabulary and analogies. The control group would not be invited to this preparatory session. Researchers from both groups would then present their discoveries to a panel of businesses, industry experts, and investors (who would be unaware of which of the researchers received the treatment). The panel would evaluate the presentations based on clarity, inspiration, and relevance.

Other possible experiments

Combined effects of training and practice sessions

Extend the initial experiment by adding a third group, in which participants receive both training and an opportunity to practise their presentations and receive feedback before pitching.

Training to develop research analogies

Test a training programme that uses exercises like improvisational theatre to help researchers create effective analogies for explaining their work, then measure the understanding of non-expert audiences.

Vocabulary training

Test a programme focused on teaching the business vocabulary researchers need to communicate effectively with industry, including key terms, their meanings, and how to "talk the talk".

Communication channels with companies

Train researchers in different formats (e.g., in-person presentations, blog posts, newsletters, academic papers) for sharing research updates with industry, and test which methods are most effective.

Developing commercialisation skills

2.2

Theme

Motivation | **Capabilities** | Resources | Matching

Target

Researchers | Businesses

While researchers excel in technical expertise, they may lack the knowledge and business acumen needed to understand the different commercialisation channels. For example, they may not have a good understanding of market demands, intellectual property management or financial planning. Providing targeted training in areas like entrepreneurship, negotiation and business strategy can equip researchers with the skills they need to successfully bring their innovations to market. By bridging this skills gap, institutions can empower researchers to take a more active role in the commercialisation process, enhancing the impact of their scientific work.

A potential experiment

Would an entrepreneurship skills audit and training programme improve a research team's ability to develop actionable steps for their commercialisation journey?

Research teams interested in commercialisation would be randomly divided into two groups. The treatment group would undergo an entrepreneurship skills audit to identify their current skills, knowledge gaps, and areas needing improvement. They would then receive targeted training based on the audit findings. The control group would not receive the audit or additional training and would proceed with their current approach. Both groups would be evaluated on their ability to develop actionable steps for their commercialisation journey, including recognising opportunities, pitching ideas, and planning next steps. Outcomes would be assessed by the clarity, feasibility, and progress of their commercialisation plans.

Other possible experiments

Hiring instead of developing skills

Extend the above experiment with a third group that receives resources to hire in or contract external specialists with the required skills, instead of developing those skills internally.

Self-efficacy and skills-oriented module-based programme

As a part of a training programme to increase researchers' commercialisation skills, randomly allocate the order of participation in the different modules, to assess which module is most effective in closing skills gaps and promoting self-efficacy. Programme modules could include:

- Recognising the commercialisation potential of one's ideas
- Taking a customer-centric and market-centric perspective
- Product development
- Financial training
- Negotiation
- Pitching & raising money
- Creating business models
- Implementing commercialisation strategy
- Mentoring

Finding the most effective format for capability building

2.3

Theme

Motivation **Capabilities** Resources Matching

Target

Researchers Businesses

Researchers need to develop a range of competencies to commercialise, from understanding market dynamics to managing intellectual property and engaging with industry stakeholders. Establishing what training to provide, when to provide it, to whom, and what format to deliver it in – traditional classroom training, workshops, online courses, or hands-on experiential learning – are challenges in themselves. Evaluating the effectiveness of these formats requires assessing how well they improve researchers' abilities to navigate the commercialisation process, apply their knowledge in real-world scenarios, and achieve successful outcomes in bringing innovations to market.

A potential experiment

Do more scalable versions of support (workshops, AI-based feedback) offer the same results as one-to-one support at different stages of the commercialisation journey?

Researchers would be randomly assigned to different support groups at various stages of their commercialisation process. The stages could include early idea development, prototype creation and market readiness. Participants in each stage would receive support either through scalable formats (workshops and group sessions, online self-paced learning) or personalised one-to-one support. The effectiveness of the support would be assessed by evaluating the progress made in developing and advancing their commercialisation plans, including the quality of their plans, engagement levels, and tangible outcomes such as patents or industry collaborations.

Other possible experiments

Individual vs. team-based training

Test commercialisation skill formats oriented towards individuals against those oriented towards teams. Team training could involve more than one person from a research team participating in existing training opportunities, or new training formats could be developed that emphasise group activities.

Concentrated vs. spread-out capacity building

Test more concentrated versions of capability building (e.g. bootcamps or entrepreneurship week) against more spread out versions (e.g. workshop series).

In-person vs. hybrid vs. online training

Test different combinations of in-person, online or hybrid training models to compare effectiveness at different levels of scalability.

Experimental examples

Growth training boosts sales for entrepreneurs scaling ventures

Reddi Kotha, Balagopal Vissa, Yimin Lin, Anne-Valérie Corboz (2023)

Do ambitious entrepreneurs benefit more from training?

A field experiment with 181 early-stage entrepreneurs in Singapore tested the impact of training in growth-enhancing business tools on scaling new ventures. The training covered tools for business-model design, leveraging networks, and team-building, and included interactive sessions and personalised coaching. Entrepreneurs who received the training experienced significantly higher sales growth — 73% compared to 30% in the control group. Entrepreneurs with more ambitious growth expectations saw even greater sales increases, up to 100%. These findings suggest that targeted growth training can help entrepreneurs scale their ventures, particularly those with higher growth aspirations.

A similar experiment could be used to test the impact of training programmes (such as Harvard's Technology Entrepreneurship: Lab to Market) or to understand for which founders the training would be more impactful.

Psychology-based initiative training boosts microenterprise profits more than traditional business training

Francisco Campos, Michael Frese, Markus Goldstein, Leonardo Iacovone, Hillary C. Johnson, David McKenzie, Mona Mensmann (2017)

Teaching personal initiative beats traditional training in boosting small business in West Africa

A field experiment in Togo tested the effectiveness of a psychology-based training programme teaching personal initiative to microenterprise owners, compared with traditional business training. The personal initiative approach, which fosters a proactive mindset and focuses on entrepreneurial behaviours, resulted in a 30% increase in firm profits, compared to just 11% for traditional business training. This impact was sustained over two years, and the programme proved cost-effective, paying for itself within a year. The findings suggest that psychology-based training may be more effective in improving the performance of self-employed business owners in developing countries.

A similar RCT could be used to compare training on the practicalities of developing spinouts vs. the attitudes required for success, in programmes such as the NSF I-Corps.

Innovation education boosts students' creative performance, but negatively impacts mathematical performance

Saloni Gupta (2023)

Can innovation be taught in schools? Experimental evidence from India

A study evaluated an education programme for 6,224 8th-grade students from disadvantaged backgrounds, teaching them to develop frugal innovations. The programme showed a significant positive impact on students' innovative abilities, as measured by a novel scale and a lab-in-the-field game, with modest improvement of 0.20 and 0.12 standard deviations, respectively. However, the gains in innovation came at the cost of reduced interest and performance in mathematics, which declined moderately by 0.30 and 0.13 standard deviations. These findings highlight the possible unintended consequences of untested training.

A similar experiment could be set up to test whether there are negative impacts or unintended consequences on scientific careers from having scientists think more about commercialisation.

Improving absorptive capacity and understanding of their technology needs

2.4

Theme

Motivation | **Capabilities** | Resources | Matching

Target

Researchers | **Businesses**

Many SMEs often struggle to leverage scientific discoveries for more effective innovation given limited resources and expertise. This gap can be bridged by increasing their absorptive capacity – the ability to find, understand, assimilate, and apply new scientific information. To assimilate and apply scientific discoveries strategically, properly identifying technology needs is a crucial step that helps guide investment decisions. Targeted support in staff training, knowledge management, and fostering continuous learning can strengthen SMEs' absorptive capacity, helping them align technology adoption with business goals, make strategic innovation decisions, and engage effectively with research and development partners.

A potential experiment

Does external support for technology needs assessments help SMEs to start more effective collaborations?

Amongst businesses participating in an informational session on university-business collaboration, half are assigned to receive training to identify needs compatible with university collaboration and half only receive an invitation to explore collaborations with a pre-determined group of researchers. The number of collaboration attempts and successful collaborations would be monitored over time.

Possible outcomes: The treatment group may initiate more collaborations due to clarity of the needs, or may initiate fewer but more successful collaborations because they know that they do not have suitable projects.

Other possible experiments

Training on technology needs self-assessment

Randomise SME managers into a training programme to identify technology needs compatible with university collaborations (i.e. right speed/urgency, scope, actors involved). It could also be expanded to test different versions of innovation management training programmes.

Absorptive capacity audit

Randomly offer an audit assessing SME's absorptive capacity to incorporate research discoveries into their work, and provide recommendation actions to improve it (either as an online benchmarking tool or a face-to-face session).

Innovation management system training

Test the effect of an innovation management system training on engagement with new scientific discoveries and development of new technologies.

Developing abilities to establish collaborations

2.5

Theme

Motivation **Capabilities** Resources Matching

Target

Researchers **Businesses**

Small and medium-sized enterprises often lack the experience or resources to initiate and manage collaborations with academic institutions. To establish effective partnerships, firms need to understand the type of researcher and collaboration that best fits their needs. This requires navigating academic processes, identifying relevant expertise, and aligning goals with university capabilities. Additionally, learning about various collaboration channels and their requirements, such as intellectual property considerations, can help businesses make informed choices that align with their strategy and capacity, ensuring more successful and mutually beneficial collaborations.

A potential experiment

Would access to a one-stop shop for companies to explore different collaboration options increase the success of collaborations?

SMEs in the middle range of innovation activity (measured by applications for R&D funds and/or innovation survey responses) would be divided into three groups. One group would receive an invitation to a one-stop shop (managed by an innovation agency or a university) to explore different collaboration options based on the company's ideas or technology needs and would then be given access to a network of researchers interested in commercialisation. Another group would only receive an invitation to the network, and the rest of the companies would be left in the control group. The ensuing companies' R&D investments, collaborations and hiring could be tracked as outcomes.

Other possible experiments

Information session on university-business collaboration

Test the effect of information sessions on possible collaboration opportunities and channels of collaboration. Different types of information sessions could be tested, in terms of content, structure and speakers.

Collaboration mentors vs. facilitators

Give access to collaboration mentors providing business advice vs. collaboration facilitators focused on creating the right connections.

Finding the most effective format for capability building

2.6

Theme

Motivation | **Capabilities** | Resources | Matching

Target

Researchers | **Businesses**

Businesses need to build a variety of capabilities to effectively collaborate with academic institutions, from understanding research processes to managing intellectual property and navigating collaboration channels. However, different businesses have varying needs, so a one-size-fits-all approach may not work. The challenge lies in choosing between multiple formats: workshops provide broad knowledge, mentorship offers personalised guidance, online learning is flexible, and immersive programmes foster deeper understanding. Additionally, developing company-wide capabilities that are well integrated into existing processes is crucial for long-term success. Assessing the effectiveness of these formats involves measuring how well they enhance collaboration, align goals, and drive market-ready innovations.

A potential experiment

Do more scalable versions of support (e.g. workshops, AI-based feedback) offer the same results as one-to-one support?

Businesses would be randomly assigned to different support groups. They would receive support either through scalable formats (workshops and group sessions) or personalised one-to-one support, and the outcomes would be compared.

The effectiveness of the support would be assessed by evaluating the progress made in developing and advancing their collaboration and technology development plans, including the quality of their plans, engagement levels, and tangible outcomes such as patents or products.

Other possible experiments

In-person vs. digital support

Test variations of in-person versus digital support: more general advice might be possible digitally but achieving a deeper understanding of the company's processes might require some in-person contact.

One-time vs. continued support

Test the effectiveness of providing one-time support versus a more extensive (but still time-limited) support package, versus ongoing support over a longer timeframe.

Concentrated vs. spread-out

Test concentrated versions of capability building (e.g. bootcamps, hackathon) against other forms of spread-out support (one-to-one, workshops).

Experimental examples

A scientific approach improves idea termination and reduces strategic pivots

Arnaldo Camuffo, Alfonso Gambardella, Danilo Messinese, Elena Novelli, Emilio Paolucci, Chiara Spina (2024)

A scientific approach to entrepreneurial decision-making: Large-scale replication and extension ↗

The impact of applying a scientific approach to entrepreneurship was tested in four RCTs, involving a total of 759 firms. Analysis across the four studies shows that this approach led to more efficient idea termination and fewer strategic pivots, with firms making few or no repeated changes in strategy. The scientific method helped entrepreneurs refine their search for viable ideas and encouraged methodical doubt, making them more careful in selecting ideas. These findings highlight the benefits of applying scientific decision-making practices in entrepreneurship, improving efficiency and strategic focus.

A similar approach could be used to test what content is more effective in building businesses' innovation capabilities.

Insourcing and outsourcing outperform business training in improving practices

Stephen J. Anderson, David McKenzie (2022)

Improving business practices and the boundary of the entrepreneur: A randomized experiment comparing training, consulting, insourcing and outsourcing ↗

A study in Nigeria tested different approaches to improving business practices for small firms. It compared traditional business training with insourcing workers or outsourcing tasks to professionals. The results showed that both insourcing and outsourcing were more effective than business training, achieving similar outcomes at half the cost. These findings suggest that linking firms to external expertise through insourcing or outsourcing can be a more efficient and cost-effective way to improve business practices, compared to training entrepreneurs in every necessary skill.

A similar approach could be used to compare approaches to provide businesses with the capabilities they need for innovation.

Regular business network meetings increase revenue and foster peer learning

Jing Cai, Adam Szeidl (2018)

Interfirm relationships and business performance ↗

A study of 2,820 young Chinese firms tested the impact of business networks on firm performance by organising monthly meetings for managers over at least one year. The results showed an 8% increase in revenue, along with significant improvements in profits, inputs, partnerships, borrowing and management practices. These benefits persisted for a year after the meetings ended. Firms with higher-quality peers experienced greater growth. The study also found that managers shared valuable business information and formed more partnerships in regular meetings, demonstrating the power of peer learning and enhanced supplier-client matching.

A similar approach could be used to test the impact of peer learning networks for business collaborating with universities.

Resources

This section addresses the financial, human, and infrastructural resources required to support university–industry collaboration. It examines effective funding programmes, access to business expertise, and the provision of non-financial support for both researchers and businesses, ensuring the necessary resources are in place to drive successful collaboration and innovation.

Designing effective funding programmes

3.1

Theme

Motivation | Capabilities | **Resources** | Matching

Target

Researchers | Businesses

Funding sources to promote university-industry collaborations are becoming more prevalent, yet a better understanding is needed of how to make this funding more impactful. Key challenges include ensuring additionality — making sure the funding generates value that would not otherwise be realised — and establishing the most impactful timing in the commercialisation process. Additionally, there are questions about how the funding should be delivered — lump sum, in stages, performance-based — and what, if any, support should the funding be complemented with — whether training, advice, or infrastructural support.

A potential experiment

Would providing access to small-scale proof-of-market funding increase commercialisation success?

A TTO at a university or other research institution could invite researchers interested in commercialisation to apply for small commercialisation grants. The small grants would fund proof-of-market studies to commercialise the outputs of their research. It would then randomly allocate the funding to a portion of eligible applicants who requested it. By tracking the commercialisation outcomes of both funded and unfunded projects, one could estimate the impact of the seed grants.

Other possible experiments

Randomisation of grant purpose

Following the same idea as above, but changing what the grant money is allocated for. All researchers are allocated grants, but the funding would cover one of the following:

- Their own time
- Their time and costs to take external training on commercialisation
- Bringing in external commercial expertise
- A new team hire to pursue commercial opportunities

Review process

Test different ways to reduce the impact of reviewers' biases on the funding decisions taken by assessment panels.

Funding delivery variations

Test effects of different funding amounts or funding arrangements (e.g. lump sum or incremental disbursements) as the project reaches certain milestones.

Attracting funding applicants

Test different messaging trials to nudge researchers to apply for commercialisation funding.

Providing access to business expertise

3.2

Theme

Motivation | Capabilities | Resources | Matching

Target

Researchers | Businesses

While researchers excel in their technical fields, they often lack knowledge in areas such as business development, marketing and legal matters, which are essential for bringing innovations to market. To bridge this gap, institutions can facilitate connections with industry experts, business advisors and legal professionals who can offer guidance on commercialisation strategies, market analysis, intellectual property and regulatory requirements. By integrating these diverse perspectives, researchers can better navigate the complexities of commercialisation, enhance the market potential of their discoveries, and accelerate their journey from lab to market.

A potential experiment

How would receiving a commercialisation assessment by a business expert at the start of the commercialisation journey impact its trajectory?

Researchers would be randomly assigned to receive either feedback from business experts on the commercial potential of their invention or standard institutional services. Expert feedback, which may include early venture assessments by investors, would provide insights into the viability of their ideas and guidance on whether to pursue them. Researchers' subsequent steps and successes would be tracked. The impact of this early assessment would be compared to those who did not receive such feedback. Those receiving expert assessments may follow a more targeted commercialisation path if the feedback is encouraging, or otherwise pivot to alternative strategies, such as academic publishing.

Other possible experiments

Providing mentorship opportunities

Give a subset of researchers access to mentors and compare their commercialisation journey to those not receiving mentorship.

Variation in mentor's area of expertise

Give all researchers access to mentors but randomly vary the area in which the mentor has experience – as an academic entrepreneur, venture capitalist or commercialisation consultant. Measure the effect on planned developments and the next steps taken.

Variation in intensity of mentoring support

Compare one-off mentoring (one-on-one, with a team, or at a hackathon) to ongoing mentoring at different stages of the commercialisation journey.

Providing access to other forms of support

3.3

Theme

Motivation | Capabilities | **Resources** | Matching

Target

Researchers | Businesses

Beyond financial backing and mentorship, researchers need access to specialised facilities with essential equipment and administrative resources, as well as potential users and real-world spaces like urban labs to develop, test, and scale their innovations. Without such infrastructure, progress can be hindered, development delayed, and the potential of promising discoveries limited. Providing researchers with the necessary tools and environments is crucial for bridging the gap between scientific discovery and market-ready products, ensuring that innovations can successfully reach and impact the market. This leads to questions about what type of access matters and what the best systems are to structure, support and regulate access.

A potential experiment

Would providing access to labs for commercialisation research increase commercialisation success?

An experiment could be used to test the extent to which access to lab resources matters for researchers trying to commercialise their research. Where demand exceeds the availability of labs, a vetted cohort of researchers with a commercialisation idea could be offered access to the labs via lottery.

Other possible experiments

Randomising the timing of access

Expand the experiment above to randomise the time at which researchers are given access to the lab. Those granted early access could then be compared to those given access later, in terms of commercialisation outcomes (e.g. applying for commercialisation-specific funding).

Access to different types of labs

Expand the experiment above to explore the effect of providing access to different types of labs (research, business or urban labs) depending on the stage of commercialisation.

Length of access

Vary the time available to access a lab to assess the point at which additional efforts yield progressively smaller benefits.

Experimental examples

Intensive management consulting leads to lasting improvements in firm practices

Nicholas Bloom, Aprajit Mahajan, David McKenzie, John Roberts (2020)

Do management interventions last? Evidence from India

A randomised experiment providing management consulting to Indian weaving firms found that performance was significantly higher at treatment plants than control plants a full nine years later. Improved management practices spread within firms but not widely across firms. Key challenges included managerial turnover and insufficient time from directors, underscoring the importance of retaining key employees for sustaining improvements. This suggests that intensive management interventions can have long-lasting effects on firm practices and productivity.

Similar experiments could be conducted to test the impact of intensive acceleration programmes for science commercialisation (such as Activate or the Creative Destruction Lab).

Additional patent assistance helps reduce the gender gap in patenting

Nicholas A. Pairolero, Andrew Toole, Peter-Anthony Pappas, Charles deGrazia, Mike Teodorescu (2022)

Closing the gender gap in patenting: Evidence from a randomized control trial at the USPTO

A randomised controlled trial at the United States Patent and Trademark Office tested the impact of providing extra assistance to patent applicants without legal representation. The study found that both men and women benefited from the additional help, but women showed an 11 percentage point greater increase in the likelihood of obtaining a patent. The effects were most significant for U.S. inventors, new inventors, and technology areas where women had previously faced the greatest disadvantage. These findings suggest that offering more support during patent examinations could help close the gender gap in patenting.

A similar experiment could be conducted to test the support provided by tech transfer offices in universities to their communities.

Standardised evaluation framework reduces the gender gap in startup funding

Amisha Miller, Saurabh A. Lall, Markus Goldstein, Joao Montalvao (2023)

Asking better questions: The effect of changing investment organizations' evaluation practices on gender disparities in funding innovation

A global field experiment with 1,871 investment decisions examined the impact of changing an organisation's evaluation framework on gender disparities in funding early-stage startups. By systematising the evaluation process with prompts on risk, reward and progress, the experiment encouraged investors to assess startups more consistently and consider competence more dynamically. This adjustment reversed the gender gap in funding, eliminating biases that typically led to women receiving fewer resources. The findings suggest that changing how investment organisations assess startups in uncertain contexts can help reduce gender disparities in funding innovation.

A similar experiment could be conducted in the context of proof-of-concept or seed funding competitions to test how the assessment process may bias the selection of who gets funded.

Designing effective funding programmes

3.4

Theme

Motivation | Capabilities | **Resources** | Matching

Target

Researchers | **Businesses**

SMEs are often financially constrained, making it essential that funding opportunities are accessible, flexible and tailored to their needs. Funding sources to promote collaborations between industry and academia – such as innovation vouchers, some R&D grants, and larger programmes like Horizon Europe – are becoming increasingly common. This creates a challenge to maximise their impact, including questions around directionality, additionality, timing, assessment processes, and type of funding. Additionally, there are questions about how funding structures can influence innovation to be incremental or disruptive, and how to best measure these outcomes.

A potential experiment

Does anonymising funding proposals reduce assessment biases?

This experiment would test whether anonymising the applicants' identity in the evaluation process for funding applicant's would improve access to funding for less-well known SMEs. In the context of a collaborative R&D grants programme (or another innovation funding programme), the reviewers would be randomised to see the proposal either unblinded (with the full information about the applicants) or blinded (with the applicant information removed). To ensure equal treatment, each proposal would be read blinded by some reviewers and unblinded by others. The scores from blinded vs. un-blinded reviews conditional on applicant 'reputation' (such as company size or prior relationship with the funder) would be compared. It would also be possible to measure whether blinding increases the chances of more novel and riskier proposals using text-based measures of novelty and risk-taking.

Other possible experiments

Attracting applicants

Testing different messages and approaches to target potential applicants and nudge them to apply.

Designing application and review processes

Testing how much information proposals should contain (i.e. their length), and how the assessment process is structured and managed (i.e. the role of AI tools).

Offering in-kind top-up support

Testing the impact of offering different types of in-kind support (such as consultants or advisors) on top of the financial grant.

Collaborative R&D grants

Test different variations of existing collaborative R&D grants against each other. For instance, testing the effect of applying to collaborative grants with or without a pre-existing research partner on the quality of the match and the success of the collaboration; or testing the effect of the ability to change the partner throughout the project.

Residencies with academic teams

Test the effect of grants or fellowships to enable entrepreneurs or employees to spend time with academics and explore opportunities in commercialisation.

Unlocking access to talent and expertise

3.5

Theme

Motivation | Capabilities | **Resources** | Matching

Target

Researchers | **Businesses**

Collaborations with scientific institutions often require some internal technical expertise. Involving early career scholars can enhance SMEs' absorptive capacity, maximising the value derived from these partnerships. However, SMEs frequently struggle to connect with university talent due to bureaucratic barriers and misaligned priorities. Lengthy and complex hiring processes deter SMEs from pursuing collaborations, and there is often a lack of awareness about the specific expertise available within universities. By facilitating smoother pathways for collaboration – such as internships, joint projects or consultancy opportunities – universities can enhance access to vital talent, fostering innovative growth and improving outcomes for SMEs.

A potential experiment

Would placing early-career university researchers in SMEs unlock further industry-university collaboration and improve SMEs' innovation performance?

Interested SMEs would apply to have a doctoral student or early career researcher placed in their business to support research that addresses a business need. SMEs in the treatment group would be given access to a student (either at no cost or partially subsidised). SMEs in the control group would not get the student placement (or alternatively would be asked to fully cover the cost). Innovation performance, joint research papers and/or follow up industry-university collaboration would be tracked. An extension of this experiment would compare different approaches to give access to PhD-grade research knowledge (e.g. internship, regular meet-ups, course projects).

Other possible experiments

Incentivising researchers and SMEs to participate in placement schemes

Compare different messaging and incentives.

Making placements work

Experiment with the design of the programme (e.g. structure, matching process) and potential top-up support.

Financial incentives for SMEs hiring PhDs

Test their impact on hiring and innovation performance (could also be compared to other ways to give access to talent, such as subsidised consultancy).

Industry-based researchers at academic labs

Test the impact of visiting positions in academia for industry-based researchers.

Industrial doctorates

Test different features or models of industrial PhD programmes, in which doctoral students undertake their research under joint supervision of a business and a university.

Providing non-financial support

3.6

Theme

Motivation Capabilities **Resources** Matching

Target

Researchers **Businesses**

Beyond financial support, SMEs require intellectual property (IP) expertise and access to specialised infrastructure. Expert guidance in IP and IP strategy can help businesses identify, protect and exploit their innovations and approach collaborations more securely. While SMEs often lack the resources to invest in high-end facilities, universities possess advanced labs, equipment, technology and software that could significantly boost innovation. However, aligning the use of this infrastructure with the specific needs and timelines of SMEs can be difficult, due to scheduling conflicts, high operational costs and the complexity of university procedures.

A potential experiment

Would offering IP audits to SMEs improve IP creation and exploitation?

An agency that offers IP audits (or other forms of IP advisory support) to SMEs interested in improving IP exploitation or developing further IP in collaboration with universities could randomly assign interested SMEs to two groups: the treatment group would receive a full IP audit, with an expert advisor identifying both existing IP and potential IP assets and making recommendations on how best to manage them. The other group would act as a control group, either not receiving any form of support or alternatively getting a low-cost form of support (e.g., access to a guide, online toolkit, or self-assessment tool). The experiment could track outcomes such as IP registrations, or other changes in how SMEs manage their IP or approach collaborations with others to further develop it.

Other possible experiments

IP audits to unlock access to finance

Test whether an IP audit that provides an assessment of the value of an SME's IP makes it easier for them to access external finance.

Innovation management support

Provide access to external advisors to support SMEs in improving their innovation management processes.

Improving access and utilisation of scientific infrastructure

Test the impact of improving SMEs' access to scientific lab equipment in university labs or other public organisations. Different experiments could test how best to reach SMEs and increase their demand for access, the level of flexibility offered in terms for access, and the additional support provided (i.e. mentored vs. independent lab access).

Experimental examples

Innovation vouchers drive SME-university collaboration with mixed long-term effects

Marco Kleine, Jonas Heite, Laura Rosendahl Huber (2022)

Subsidized R&D collaboration: The causal effect of innovation vouchers on innovation outcomes ↗

Oksana Balabay, Lydia Geijtenbeek, Jaap Jansen, Oscar Lemmers, Marcel Seip (2019)

Het langetermijneffect van innovatievouchers voor mkb-bedrijven op bedrijfsresultaten ↗

Maarten Cornet, Björn Vroomen, Marc van der Steeg (2006)

Do innovation vouchers help SMEs to cross the bridge towards science? ↗

Innovation voucher schemes in the Netherlands and the UK were successful in encouraging SMEs to collaborate with knowledge institutes and experts, driving short-term innovation activity. Dutch vouchers spurred new projects and boosted R&D participation and employment growth over the long term, but the impacts on turnover and productivity are less clear. In the UK, innovation vouchers led to immediate improvements in product development and internal processes, but the benefits appeared to have faded within two years. Overall, these studies suggest that vouchers can encourage knowledge exchange and short-term outcomes, but there is more to be learned about whether they can generate sustained impacts on productivity and innovation.

Group-based management consulting outperforms individual approach in boosting performance

Leonardo Iacovone, William Maloney, David McKenzie (2022)

Improving management with individual and group-based consulting: Results from a randomized experiment in Colombia ↗

A study with Colombian auto parts firms tested two approaches to improving management quality: intensive one-to-one consulting and a more cost-effective group-based consulting model. Both approaches led to similar improvements in management practices (of 8-10 percentage points), but the group-based intervention had larger and more consistent effects on firm sales, profits and labour productivity. In contrast, the individual consulting approach had smaller and less robust impacts on performance. The results suggest that group-based models offer a scalable and effective way to improve management practices, particularly in developing countries.

A similar approach could be used to compare how to provide commercialisation and collaboration support to firms.

Proximity and social interaction drive knowledge spillovers in co-working spaces

Maria P. Roche, Alexander Oettl, Christian Catalini (2022)

(Co-)Working in close proximity: Knowledge spillovers and social interactions ↗

A study at a large U.S. technology co-working hub examined the effect of physical proximity on knowledge spillovers between startups. The random assignment of office space to 251 startups revealed that proximity positively influenced knowledge sharing, as seen in the adoption of web technologies used by nearby peers. The effect was strongest for startups located within 20 metres of each other, with social interactions playing a key role. Notably, knowledge spillovers were greatest between startups that socialised together but were dissimilar. The study suggests that balanced diversity and socialisation drive better startup performance in co-working spaces.

A similar approach could be used to explore whether making it easier for business-based researchers to access or work in university laboratories would unlock knowledge diffusion and collaboration.

Matching

This section highlights interventions focused on aligning innovations with market needs and fostering effective partnerships. It explores strategies for identifying potential uses for scientific discoveries, addressing business challenges with appropriate technologies, and building relationships between researchers and businesses to ensure successful and impactful collaborations.

Identifying potential uses for scientific discoveries

4.1

Theme

Motivation · Capabilities · Resources · **Matching**

Target

Researchers · **Businesses**

Universities possess a substantial catalogue of scientific discoveries and technologies that remain uncommercialised, since the applications are unclear or suitable commercialisation partners and pathways are lacking. Finding more effective ways to exploit this underutilised knowledge could contribute to new inventions that create value for society. A key step is to identify potential uses for technologies, which can be challenging given the distance between scientific discoveries and market needs. The needed interventions aimed at identifying unexploited scientific discoveries and technologies and finding uses for them can take place within the university or through collaborations with external stakeholders.

A potential experiment

Can action-based commercialisation courses help identify uses for scientific discoveries and accelerate their commercialisation?

A research institution (or a consortium) with a large number of codified but unexploited discoveries could randomise a subset of these discoveries into an intervention to identify potential uses. Discoveries in the treatment group could be assigned to multidisciplinary teams (consisting of PhD students/post-docs and MBAs) to explore over three months the potential uses and commercialisation routes for that discovery. The teams would also consider any constraints that the technology would need to overcome to prove valuable for use. The experiment would compare the commercialisation success of the discoveries that had been through the programme against the ones that had not – and potentially also assess unintended effects on participating researchers' future careers.

Other possible experiments

Approaches to identifying uses

Compare different approaches to identify uses alongside the example above, such as:

- Changing the incentives for researchers who invented the technology to participate.
- Allocating an expert commercialisation advisor to support the team.
- Testing online dissemination platforms.
- Using some open innovation platforms/challenges.

Knowledge management and AI/ML tools

Explore the effectiveness of different tools to collate and codify the portfolio of technologies that a university (or region) has, and the effectiveness of AI/ML tools to identify potential uses.

Meet-ups for ideation and team formation

Explore the potential of hackathon-style meetups for team formation and idea generation.

Identifying technologies to address particular challenges

4.2

Theme

Motivation | Capabilities | Resources | **Matching**

Target

Researchers | **Businesses**

Universities and research institutions hold substantial knowledge and expertise that can help address businesses' technical challenges. However, it is often unclear what the most appropriate technology might be to help overcome a particular problem that a business faces. With the rapid pace of scientific advancements, even well-informed companies can struggle to pinpoint which emerging technologies or discoveries will best suit their needs. Creating mechanisms that make it easier for businessess to identify potential technologies and select the most appropriate one can unlock new industry-university collaborations and contribute to accelerate the development of innovative solutions.

A potential experiment

Can innovation brokers help businesses identify and incorporate recent technology developments from academia?

An organisation that provides innovation brokerage services could randomise a subset of R&D-active businesses to have preferential access to innovation advisors that assess the business' technology challenges and identify scientific developments in relevant areas that might be useful. The experiment could compare whether the businesses that have had access to the service (or have been encouraged to use it) establish more academic collaborations, build on knowledge from a broader range of technology fields, innovate more successfully, develop more patents, or cite more academic publications in their patent applications. The experiment could also compare the effectiveness of different types of advisors and brokerage processes or explore different pricing or subsidy approaches for the service.

Other possible experiments

More accessible knowledge

Test different approaches to make academic knowledge more accessible for companies, such as open-access publications, application-oriented summaries, a platform providing Wikipedia-like curated summaries of technology developments by area, or active promotion actions of research developments for SMEs.

Innovation competitions

Experiment with the design and implementation of open innovation competitions, challenge prizes and hackathons. For example, behavioural nudges could be used to increase participation (targeting both companies and researchers), incorporating "live" challenges within university courses' class assignments, different framings for challenges, or alternative levels and forms of support for proponents and respondents.

Digital innovation brokerage

Explore the effectiveness of different digital innovation brokerage tools to identify potential academic collaborators and the value of complementing artificial intelligence with human intelligence (in the form of expert advisors that guide and support users through this process).

Building new relationships between researchers and businesses

4.3

Theme

Motivation | Capabilities | Resources | **Matching**

Target

Researchers | **Businesses**

Successful commercialisation requires bringing together academics with the right expertise and motivation with business partners who can bring novel technologies to market. Matching technologies to business opportunities or needs is generally insufficient unless effective collaborations can be built to take these opportunities forward. This matching process involves identifying the right partners in both industry and academia, bringing them together to explore opportunties for collaboration, and building the necessary trust for meaningful collaborations to emerge.

A potential experiment

Do innovation vouchers create successful industry-academia collaborations?

Innovation vouchers provide small amounts of funding to SMEs interested in establishing new collaborations with academic institutions. Innovation voucher schemes are often oversubscribed and the funding amounts are small, so using a lottery can be a fairer and more efficient approach to allocate them than traditional scoring systems. An experiment could randomly allocate innovation vouchers among all eligible applicants (after screening out those applications below the required threshold).

The experiment would measure whether new collaborations are created, and track long-term outcomes in terms of innovation performance and continued collaboration. Variations of the voucher could also be tested, such as different amounts, more flexible rules on how it can be used (only universities vs. also other knowledge providers), or the value of providing in-kind support on top. It could also explore whether a one-time voucher is sufficient for sustained collaboration after overcoming the initial search frictions, or whether continued support might be needed.

Other possible experiments

Structured events

Explore the impact and how best to structure interactions during events that bring together industry and academia (such as conferences, networking events, engagement workshops and matchmaking sessions for funding calls), e.g. testing "speed dating" schemes between researchers and businesses.

Scientific infrastructure

Test how to encourage businesses to use universities' technical facilities, and how best to leverage this initial encounter to build further collaborations.

Doctoral alumni

Test approaches to encourage more doctoral students to consider industry careers, while also keeping them connected to their former colleagues in academia after they have moved on.

Venture studios and accelerators

Test approaches to assemble founding teams for spin-outs that combine the right technical and management expertise.

Executing effective collaborations

4.4

Theme

Motivation | Capabilities | Resources | **Matching**

Target

Researchers | **Businesses**

Developing strong, valuable and long-lasting relationships is often the most challenging aspect of university-industry collaboration. These partnerships require trust, clear communication, and alignment of goals, which can be difficult to achieve given the differing priorities and cultures in academia and business. Failed collaborations can reduce the appetite of both parties to collaborate in the future with each other or others in the sector. Intermediary organisations, such as Technology Transfer Offices (TTOs), innovation brokers, and research liaison offices, can play an essential role in facilitating these collaborations by building trust, reducing frictions, mediating potential conflicts, managing expectations, addressing logistical and bureaucratic issues, and helping execute smooth collaborative projects. In this way, intermediaries ensure that projects stay on track, adapt to evolving needs, and maintain the transparency required to build lasting trust and further collaboration.

A potential experiment

What relationship-strengthening or management activities are effective at building trust and reducing friction, contributing to long-lasting impactful collaborations?

This experiment would explore the impact of different relationship-strengthening interventions on the success and longevitiy of university-industry collaborations. The participants could be recruited among the existing portfolio of university-industry collaborations within an institution (i.e. collaborations with SMEs through innovation vouchers, R&D collaborative grants or sponsored research). Existing or new relationships (i.e. business-researcher pairs) would be randomly assigned to variations in management practices and support (e.g. the addition of project managers, communication frequency, structured project planning, and collaborative work practices) to evaluate their effects on trust-building, friction reduction, and partnership longevity.

Other possible experiments

Licensing

Explore simplified IP licensing approaches (e.g. the Lambert toolkit), give away university discoveries that have not been commercialised (e.g. Easy Access IP) or assess licensing restrictions on commercialisation success (e.g. exclusivity).

Simplified administrative processes

Explore ways to minimise bureaucratic hurdles by simplifying contract negotiations and paperwork, offering SMEs a more seamless experience when entering into collaborations.

Organisational design/capabilities

Explore how to improve the ways of working of TTOs and innovation brokers; for instance, changing their incentive structure, providing capacity building/training for their staff, or changing their internal processes.

Feedback

Implement regular feedback sessions with SMEs to gather insights on their experiences and suggestions for improvement. This can help universities adjust their strategies and better meet SME needs.

Experimental examples

Reducing search costs significantly increases collaboration among scientists

Kevin J. Boudreau, Tom Brady, Ina Ganguli, Patrick Gaule, Eva Guinan, Anthony Hollenberg, Karim R. Lakhani (2017)

A field experiment on search costs and the formation of scientific collaborations

A field experiment at Harvard Medical School tested how search costs influence scientific collaboration. Researchers were randomly assigned to pairs participating in a 90-minute information-sharing session as part of a grant funding opportunity. The experiment found that the likelihood of paired researchers co-applying for grants grew by 75%. These results suggest that even in well-connected academic settings, significant friction exists in matching scientists for collaboration. Lowering these barriers can enhance research partnerships, potentially leading to more successful outcomes.

A similar approach could be used to test interventions that bring together researchers and businesses to get to know each other.

AI business assistant improves performance for high-performing entrepreneurs

Nicholas G. Otis, Rowan Clarke, Solène Delecourt, David Holtz, Rembrand Koning (2023)

The uneven impact of generative AI on entrepreneurial performance

A field experiment in Kenya tested the impact of a Whatsapp-based AI-powered business assistant on small business performance. While the overall treatment effect was not significant, high-performing entrepreneurs saw a 15% improvement in revenue and profits, while low performers experienced an 8% decline. The performance gap arose from differences in how entrepreneurs selected and implemented the AI's advice, not from the quality of advice provided. These results highlight that generative AI can influence business decisions, but its effects may be uneven, with higher potential for skilled entrepreneurs.

A similar approach could be used to test the impact of providing tech transfer officers with AI tools, e.g. Scientifiq.

Design thinking increases confidence and creative thinking in students

Hayagreeva Rao, Phanish Puranam, Jasjit Singh (2021)

Does design thinking training increase creativity? Results from a field experiment with middle-school students

An experiment in rural India tested whether training on design thinking could help school children become more creative. The results showed that the training boosted students' confidence and improved their ability to generate and expand on ideas. However, the quality of their ideas, such as originality and flexibility, was lower compared to those who did not receive the training. The confidence boost was especially noticeable among female students, while both boys and girls showed improvements in thinking of new ideas and developing them further. Overall, the training helped students think more creatively, but not always in the most original ways.

A similar experiment could be set up to compare different approaches to identify potential uses of novel technologies, e.g. MIT i-Teams.

About this handbook

This handbook was written by Sara García Arteagoitia ↗ and Albert Bravo Biosca ↗ at the Innovation Growth Lab (IGL) ↗ as part of the ATTRACT Phase 2 socioeconomic project "Using novel experimental approaches to boost science commercialisation success: A Pilot Study (NEXT)" ↗ with Elimar Pires, Laia Pujol, Angelo Romasanta and Jonathan Wareham from Esade and Albert Banal Estañol from Pompeu Fabra University (UPF) and the Barcelona School of Economics (BSE). The NEXT project was funded with European funds through the ATTRACT Phase 2 Socioeconomic Studies. ↗ The authors are not responsible for any use that may be made of the information and results presented in this Handbook.

ATTRACT ↗ is an EU-funded initiative aimed at accelerating technology transfer and impact through a collaborative ecosystem. The programme brought together some of Europe's largest research infrastructures – CERN, the European Southern Observatory (ESO), the European Synchrotron Radiation Facility (ESRF), the European Molecular Biology Laboratory (EMBL), European X-Ray Free-Electron Laser (European XFEL) and Institut Laue-Langevin (ILL) – working together with industry and investors to drive transformative progress in technology with practical applications across various sectors. ATTRACT funded 170 innovation projects and supported 18 teams with prototyping and development, advancing detection and imaging technologies for scientific, industrial and societal applications.

About the Innovation Growth Lab

IGL is a global policy lab that supports the development of productive, inclusive and sustainable economies through the application of 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.

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 Partners include leading institutions that support our mission, and the IGL Research Network has over 150 researchers working on experimental research in this field.

Our IGL Partners

Key to our mission is to advance policy experimentation and help organisations become experimental. IGL has worked with over 50 government agencies worldwide to help them design their first experiments. We have also successfully campaigned for increased investment through experimentation funds: both the UK and the European Union launched dedicated funding calls for experiments in innovation and growth policy, legitimising the value of policy experimentation and supporting many organisations to run their first experiments.

Driving experimental research is core to our work. We have engaged with policymakers from over 45 countries to create opportunities for experimental research, enabling over 70 academic researchers to set up RCTs on different policy programmes. We have also directly supported more than 70 trials in over 30 countries, tackling a range of questions across innovation, entrepreneurship and growth policy.

Through our capacity-building work, funding and events, we have seeded a growing global community of policymakers, practitioners and researchers engaged in policy experimentation in this field, collaborating with over 120 organisations to advance this agenda. Find out more about IGL and how we can collaborate here:

Website LinkedIn

IGL Innovation Growth Lab

What's next?

Innovation Growth Lab

This handbook is part of IGL's broader initiative to advance university-industry collaboration through experimentation. Our goal is to develop a portfolio of experimental and data-driven projects that build the evidence base and provide actionable insights to accelerate science commercialisation and foster stronger university-industry partnerships.

At IGL, we are working to bring together researchers, practitioners, policymakers, funders, and other stakeholders to create a vibrant ecosystem where innovative ideas are tried and can flourish. Through ideation, testing and scaling, we aim to help develop cost-effective, impactful solutions to the pressing challenges facing university-industry collaboration.

We also seek to ignite a wave of experimentation in this space – encouraging organisations and governments to test new approaches, learn from outcomes, and share insights. Our vision is to embed a culture of experimentation that drives continuous improvement and innovation in science commercialisation practices.

If you are interested in collaborating with us - whether as a government agency, a technology transfer office, a researcher or a funder – we invite you to join this effort. Together, we can shape the future of university-industry collaboration by building smarter, more effective ways to bridge the gap between academia and industry.

Reach out to us to explore partnership opportunities, shape new projects, or share your insights and challenges. Let's work together to design and test new solutions that accelerate innovation and deliver meaningful impact: **innovationgrowthlab@nesta.org.uk**

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IGL Innovation Growth Lab

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