



# Building Pre-Commercial Challenge Spaces: Innovation Calls, Regulatory Adaptation and Productivity Pathways in Financial Services



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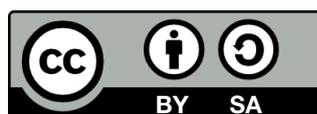
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# Financial Regulation Innovation Lab

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## Who are we?

The Financial Regulation Innovation Lab (FRIL) is an industry-led collaborative research and innovation programme focused on leveraging new technologies to respond to, shape, and help evolve the future regulatory landscape in the UK and globally, helping to create new employment and business opportunities, and enabling the future talent.

FRIL provides an environment for participants to engage and collaborate on the dynamic demands of financial regulation, explore, test and experiment with new technologies, build confidence in solutions and demonstrate their ability to meet regulatory standards worldwide.

FRIL is part of the Glasgow City Region Innovation Accelerator programme, funded through Innovate UK on behalf of UK Research and Innovation. The Innovation Accelerator programme is investing £130 million in 26 transformative R&D projects to accelerate the growth of three high-potential innovation clusters, including the Glasgow City Region.

## What is Actionable Research?

FRIL will integrate academic research with an industry relevant agenda, focused on enabling knowledge on cutting-edge topics such as generative and explainable AI, advanced analytics, advanced computing, and earth-intelligent data as applied to financial regulation. The approach fosters cross sector learning to produce a series of papers, actionable recommendations and strategic plans that can be tested in the innovation environment, in collaboration across industry and regulators.

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## Abstract

This paper examines how challenge-led innovation calls can help shape and guide the emergence of a business and policy ecosystem around current regulatory problems in financial services. Drawing on field materials from the first three Financial Regulation Innovation Lab (FRIL) innovation calls held in 2024, it argues that relatively small publicly supported challenge programmes can identify promising firms. As importantly, they can create structured pre-commercial spaces in which financial services companies, fintechs, and intermediaries can articulate common problems, test emerging solutions, and develop pathways towards pilots and adoption.

The paper is situated in a wider policy context in which productivity, innovation and sector growth have again become central concerns in UK policy. The UK's Modern Industrial Strategy identifies Financial Services and Digital and Technologies among priority sectors for long-term growth, while recent policy developments around procurement innovation show growing interest in reducing barriers between innovative smaller firms and large institutional end users (UK Government, 2025a). The Productivity Institute, meanwhile, has argued for a broader understanding of productivity centred not only on output-input ratios but also on coordination, knowledge use, capability development and diffusion (Coyle, 2021; Jones, 2023; UK Government, 2025b; van Ark, de Vries and Pilat, 2024).

The paper treats FRIL as an intervention in productivity-relevant processes. Across the first three calls, the immediate challenges for financial-services firms were compliance-related: AI-enabled compliance simplification, ESG and sustainability compliance, and Consumer Duty compliance. Yet the practical work extended beyond compliance into data, reporting, governance, customer processes, and operational change. The first call was structured around sponsor-specific use cases, provided strong lead-user access, and tended towards concentrated matching within particular firms. Later calls, especially the ESG-focused second call, moved towards co-developed challenge statements and multi-sponsor backing, creating stronger conditions for shared learning, diffusion, and wider ecosystem formation.

It is too early to claim direct measured productivity gains at the programme level. However, the evidence from the three calls is sufficient to identify several plausible productivity pathways: clearer problem articulation, reduced search and matching frictions, faster pre-

commercial validation, reduced manual effort in compliance-related processes, and stronger conditions for diffusion and reuse. The central policy lesson is that innovation calls work best when they are treated both as competitions for technical ideas, and as mechanisms for shaping and guiding pre-commercial ecosystems around current business and policy problems.

# 1. Introduction: productivity, innovation and regulation-driven adaptation

Productivity is once again central to UK economic policy, but public discussion still often treats it too narrowly. The UK's Modern Industrial Strategy is framed as a ten-year plan to increase business investment and grow priority sectors, including Financial Services and Digital and Technologies (UK Government, 2025a). Yet productivity is often discussed as if it were a matter of what happens inside individual firms: better employees, better management, stronger capital investment, or faster technology adoption. These matter, but they do not exhaust the issue.

The UK Productivity Institute (a programme funded by the Economic and Social Research Council) offers a broader and more analytically realistic account. Coyle (2021) argues that productivity in a modern knowledge-based economy depends both on inputs and outputs narrowly understood, and on coordination, institutional quality, knowledge use, and the organisation of economic activity. Van Ark, de Vries and Pilat (2024) place further emphasis on diffusion, absorptive capacity, and the institutional conditions through which innovation is translated into better economic performance. Further, Jones (2023) argues that the link between innovation and productivity is not automatic but depends on how innovation is translated into use. This raises different questions: how do firms innovate, and how does policy identify the kinds of institutional arrangements that help firms identify problems, find partners, test solutions, and move from experimentation to adoption?

That question is especially important in financial services. Financial services is both a major sector and an enabling sector for the wider economy. At the same time, it is shaped significantly by regulatory and reporting requirements. In such settings, regulation is often presented only as a drag on productivity. That is too simple. In regulation-intensive sectors, regulatory change can also be an agent of business and organisational change, creating focused demand for new tools, processes, and capabilities. The critical issue is whether firms and ecosystems have access to mechanisms that help translate regulatory requirements into workable practices without excessive friction, duplication, or delay. The UK Financial Conduct Authority's (FCA) continuing work on the Consumer Duty, for example, makes clear that regulatory change increasingly reaches into firms' operational routines, monitoring systems, customer communications, product and service development, and governance arrangements (Financial Conduct Authority, 2022; Financial Conduct Authority, 2025a; Financial Conduct Authority, 2025b).

This paper examines one such mechanism: challenge-led innovation calls developed and delivered through the Financial Regulation Innovation Lab (FRIL) over 2023 to 2025. Its central argument is that these calls can be understood as a way of shaping and guiding the emergence of a business and policy ecosystem around shared regulatory problems in financial services. The immediate driver for sponsor firms, typically large financial services firms, is compliance. The practical response extends into broader organisational adaptation: new data practices, new reporting routines, new customer processes, many offered by small start-up and scale-up fintechs, and new ways of embedding regulatory obligations in operational practice.

The term 'ecosystem' is used here in a pragmatic rather than a doctrinal sense. The paper does not seek to engage with research-led debates about whether ecosystems are conceptually superior to networks or clusters. Instead, an ecosystem denotes a problem-centred arrangement in which financial-services firms, fintechs, researchers, and intermediaries are brought together in structured pre-commercial interactions around shared regulatory challenges. The value of the ecosystem lens lies in its emphasis on interdependence, complementarities, and boundary conditions, rather than treating innovation as generated solely within a single firm (Adner, 2017; O'Connor and Audretsch, 2023; Stam and Van de Ven, 2021).

The paper, therefore, adopts a pragmatic approach to its core concepts. Productivity is treated not simply as a narrow firm-level output-input ratio, but as something shaped by coordination, capability formation, diffusion and institutional conditions (Coyle, 2021; Jones, 2023; Van Ark, de Vries and Pilat, 2024). An ecosystem is understood as a structured, problem-centred arrangement in which multiple actors are brought together in pre-commercial interactions around shared challenges (Adner, 2017; O'Connor and Audretsch, 2023; Stam and van de Ven, 2021). Procurement of innovation is treated as a formal contracting issue and as part of a wider policy process through which demand can be made generative or supportive of innovation, provided that problem definition, capability mix, intermediary support, and adoption conditions are organised effectively (Chiappinelli, Giuffrida and Spagnolo, 2025; Grimbert, Zabala-Iturriagagoitia and Valovirta, 2024). Within this framing, orchestration and intermediation become central because the shaping of relationships, complementarities, and adoption conditions is itself part of the innovation process (Baraldi and Wagrell, 2022; Gomes et al., 2026).

The paper also sits in a wider policy landscape. FRIL formed part of a broader project funded by Innovate UK within the UK Government's Innovation Accelerator programme, a place-based initiative spanning Glasgow City Region, Greater Manchester and the West Midlands funded for 2023 - 2025 and extended into 2025 - 2026 (UKRI, 2025). FRIL, a partnership between FinTech Scotland, University of Glasgow, and University of Strathclyde, has mostly a private sector focus, though involving credit unions and engaging in policy questions such as financial and digital inclusion. More recently, government has also moved to strengthen public-sector innovation adoption through measures including Procurement Innovation Champions and the review of internal barriers to buying from innovative scaling companies (UK Government, 2025b).

FRIL also sits alongside adjacent challenge-led innovation approaches in the UK policy landscape. In Scotland, the Scottish Government's CivTech programme brings the public, private and third sectors together around real problems through a challenge-based process designed to engage smaller innovative suppliers and develop practical digital solutions (CivTech, no date a; CivTech, no date b). In financial regulation, the FCA's TechSprint approach similarly brings together participants from across and outside financial services to address industry challenges, and the FCA has reflected on the evolution and lessons of that model (Financial Conduct Authority, 2020; Financial Conduct Authority, 2026). FRIL was distinct in purpose and design, but these adjacent initiatives reinforced the value of challenge-led, pre-commercial formats for organising innovation around current institutional problems.

This matters now because UK policy is increasingly concerned with supporting innovation supply and with improving the institutional conditions under which innovation can be adopted,

diffused, and used productively. That concern appears in different but overlapping ways across the UK's Modern Industrial Strategy, Innovation Accelerator, the Productivity Institute's work on diffusion and capability, and more recent UK Government interest, through its Department for Science, Innovation and Technology (DSIT), in procurement innovation and institutional demand. FRIL is useful in this context because it offers a field-based example of how challenge-led, pre-commercial collaboration can reduce the distance between innovative smaller firms and large institutional users in a regulation-intensive sector (Coyle, 2021; UK Government, 2025a; UK Government, 2025b; UKRI, 2025; van Ark, de Vries and Pilat, 2024).

The paper contributes in three ways. First, it offers a field-based account of how challenge-led innovation calls can shape and guide the formation of a pre-commercial ecosystem around current regulatory challenges. Second, it identifies a set of productivity-relevant pathways through which such programmes may matter, without overclaiming direct aggregate productivity effects. Third, it distils design principles that are potentially shareable beyond financial services, especially in settings where public or regulated institutional demand shapes innovation adoption.

The paper proceeds as follows. Section 2 introduces FRIL as a challenge-led intervention. Section 3 presents evidence from the first three innovation calls. Section 4 analyses the productivity pathways suggested by that evidence. Section 5 develops policy implications and design principles. A concluding section then draws out the wider significance of challenge-led ecosystem guidance in regulation-intensive sectors.

## **2. FRIL as a challenge-led innovation intervention**

In policy terms, FRIL matters because it draws attention to the institutional middle layer between high-level policy ambition and firm-level outcomes. FRIL contributed elements of a conventional research project and provided a funding stream for a specific innovation activity. More significantly, it created a structured mechanism for bringing together financial services firms, fintechs, researchers, and intermediaries to address current problems in regulation-intensive areas of financial services. Alongside its innovation calls, FRIL included work streams in actionable research, skills development, and knowledge exchange, forming a collaborative project team across FinTech Scotland, University of Glasgow, and University of Strathclyde – with a secondee from the FCA joining the project during 2024 and 2025. FRIL was funded by Innovate UK from April 2023 to March 2026 under the UK Government's Innovation Accelerator programme, and as a place-based initiative, was guided by the Glasgow City/Region Partnership of local authorities.

Innovation in financial services rarely emerges through simple bilateral market transactions. It often requires problem articulation, access to lead users, technical and domain expertise, iterative engagement, and opportunities for testing in a pre-commercial setting. FRIL's central contribution was to shape and guide that interaction. At its core, the programme convened and organised a pre-commercial challenge space around shared regulatory and compliance pressures.

FRIL did not simply support individual projects. It helped shape and guide an ecosystem-like configuration in which sponsor firms, fintechs and intermediaries could align complementary capabilities around compliance problems. This is one of the main reasons the ecosystem

framing is useful here. It highlights that the relevant unit is not the isolated firm, but the configuration of actors through which innovation becomes possible, credible, and actionable. FRIL can therefore be understood as a funding mechanism for pilot and pre-commercial projects, as well as a form of orchestration and intermediation. It structured interaction helped define challenge boundaries as pre-commercial, organised access between actors, and contributed to the conditions under which innovation could move from problem recognition towards validation and possible adoption (Adner, 2017; Baraldi and Wagrell, 2022; Gomes et al., 2026).

For each innovation call, the project established a small steering group of participating financial services firms to enable sponsors to influence the agenda and help shape the use cases. In practice, this typically involved one-hour meetings every two or three weeks over the three months leading up to a call. This created space for sponsor firms to state their own problems, compare priorities, build familiarity with one another, and begin identifying where apparently firm-specific issues might in fact be shared.

The focus of the first three innovation calls was chosen through careful consultation with financial services firms and regulators. Soon after the establishment of an Industry Advisory Group for FRIL during 2023, these themes were identified in outline as a suggested programme of work, reflecting both sponsor priorities and the wider innovation agenda in Scottish and UK financial services. This agenda also aligned with the FinTech Scotland Research and Innovation Roadmap, which identified financial regulation innovation and the simplification of compliance as priority areas for collaborative research and innovation (FinTech Scotland, 2022; FinTech Scotland, 2023).

The three calls were connected by a common concern about compliance, but they addressed different challenges for financial services firms. The first call focused on whether machine learning and AI could simplify compliance and reporting in ways that would remain credible to regulators and useful to firms. This was relatively close to day-to-day operational concerns and visible opportunities for process improvement. The second call, on ESG and sustainability compliance, was more externally oriented and involved horizon-scanning across a newer, more complex domain shaped by evolving reporting expectations, emerging knowledge requirements, and the challenge of translating science, policy, and standards into workable reporting and assurance practices. The third call, on Consumer Duty, involved a somewhat different community, with a stronger emphasis on digital and financial inclusion, consumer vulnerability, and the challenge of evidencing good customer outcomes. It also broadened participation to include credit unions alongside larger retail-bank functions and customer compliance teams.

FRIL-aligned white papers have also begun to emerge across the three challenge domains, including work on AI and RegTech for simplifying compliance (MacNeil, Cummins, Azzutti and Otioma, 2025), ESG and sustainability reporting (Finch, Li and Anderson, 2025), and Consumer Duty and consumer outcomes (Finch and Otioma, 2025).

This steering-group dynamic is analytically important. It shows that the calls were not simply designed by the project team and then presented to firms. They were jointly shaped through repeated interactions with sponsors. That interaction helped financial-services firms develop familiarity with one another in this specific setting, build trust around the pre-commercial purpose of the exercise, and gradually move from separate sponsor-owned use cases towards more shared challenge spaces. In policy terms, this matters because it shows that ecosystem

guidance requires more than funding. It depended on repeated sponsor engagement, intermediary coordination and a bounded environment in which firms were willing to collaborate before procurement and competitive concerns reasserted themselves.

The programme's pre-commercial character was crucial. As a publicly funded programme (though Innovate UK), the calls were not immediate procurement exercises. They created a bounded exploratory setting in which firms could articulate and compare problems, engage with fintechs, and experiment with possible solutions before any formal contracting. This boundary distinguished the challenge space from ordinary procurement, supplier management, and routine corporate activity. It made collaboration easier while keeping the exercise oriented towards practical application. In this sense, the programme had close antecedents from which to shape an ecosystem. It guided the emergence of a structured pre-commercial ecosystem to address current business and policy problems.

The design of the innovation calls also drew selective inspiration from adjacent challenge-based models, including CivTech in Scotland and the FCA's TechSprint approach. FRIL was distinct in purpose and design, but these initiatives reinforced the value of working from clearly defined institutional problems, structured interaction, and bounded collaborative experimentation (CivTech, no date a; Financial Conduct Authority, 2020).

This matters because design guidance is part of implementation. The value of the innovation calls depended on selecting strong firms. Typically, 16 fintechs were selected from a larger pool of applicants to take part in each call, most from the UK, though some international participants were included. Value also dependent on how the process itself was structured. The preparatory sponsor work, the formulation of use cases, the 12-week sequence from kick-off through deep dives to demo day, and the follow-on funded work for selected firms. The innovation call process and its implementation by the project team were part of the intervention itself.

In evidential terms, the paper draws on pseudonymised programme materials from the first three FRIL innovation calls, including use-case documents, company-level reports, award-outcomes summaries, and field-based involvement in the design and delivery of the calls. In all, 16 awards were made across the first three innovation calls. The aim is not to claim a formal action-research design, but to use embedded programme evidence to analyse how challenged innovation calls shaped and guided pre-commercial collaboration around regulation-driven problems in financial services.

### **3. Evidence from three innovation calls**

The first three FRIL innovation calls can be understood as related interventions in regulation-driven challenge domains in financial services. Although their substantive emphasis differed – AI-enabled compliance simplification, ESG and sustainability compliance, and Consumer Duty compliance – they addressed a common problem: how to create a structured pre-commercial setting in which financial services firms, fintechs, and intermediaries could engage with current regulatory and operational pressures.

Although all three calls referred to compliance-related innovation, they addressed different types of regulatory challenge: process simplification close to firms' existing operational concerns; more outward-facing horizon-scanning and knowledge translation around ESG; and

a Consumer Duty agenda with stronger digital-inclusion and vulnerability dimensions. Seen this way, the calls were successive attempts made in 2024 to shape and guide an ecosystem-like challenge space around problems that firms initially experienced as compliance burdens. In practice, these problems, expressed as challenge statements, use cases, and their preliminary solutions, are extended into wider issues of data, reporting, governance, customer processes, and operational adaptation.

The first call shows the value of the model in its earlier form. Its use cases were largely sponsor-specific, with individual financial services firms bringing distinct operational and regulatory challenges. This created strong lead-user relevance and gave fintechs direct exposure to current organisational needs. At the same time, it encouraged more concentrated matching around particular sponsors. Call 1 was therefore effective as an early mechanism of access and validation, but it still operated mainly through sponsor-specific problem ownership rather than through a fully shared challenge space.

The second call, focused on ESG and sustainability compliance, marks a significant development in the programme's design. Here, challenge statements were no longer simply separate sponsor-owned problems. They were worked up through repeated interaction among financial-services firms and the project team, producing a more collaborative and clearly bounded environment. This mattered because it altered the character of the ecosystem being guided. The programme was no longer simply matching fintechs to lead users; it was helping sponsors recognise shared challenge areas and creating stronger conditions for joint sponsorship, wider validation, and potential diffusion.

The third call extends the model into Consumer Duty and related consumer-protection and fraud and compliance problems. This is important because it suggests that the mechanism is not specific to ESG compliance and reporting alone. Rather, it appears portable across different regulation-intensive domains in financial services. What carries across is the underlying logic: challenge-led, sponsor-shaped, pre-commercial collaboration around problems that are immediately compliance-related but operationally much broader. The Consumer Duty call also had a wider public-policy dimension, since the compliance challenge overlapped with broader concerns about digital inclusion, consumer vulnerability and the ability of firms to evidence and improve customer outcomes under the FCA's evolving expectations (Financial Conduct Authority, 2022; Financial Conduct Authority, 2025a; Financial Conduct Authority, 2025b).

**Table 1. FRIL innovation calls 1–3: challenge design, sponsor structure and innovation/productivity pathways**

Innovation call	Main compliance domain	Use-case / challenge design	Sponsor structure	Main innovation/productivity pathways evidenced	Main programme learning point
Call 1 (April to June 2024)	AI-enabled compliance simplification and related regulatory-compliance operations	Primarily firm-specific use cases. Individual financial-services firms brought distinct problems.	More anchor-firm-centred. Matching was relatively concentrated around particular sponsor firms.	Direct access to live end-user problems; faster validation of relevance; operational efficiency gains through automation and improved monitoring.	Early model showed the value of lead-user access, but remained closer to a sponsor-specific bilateral structure than a shared ecosystem challenge space.
Call 2 (July to September 2024)	ESG / sustainability compliance	Co-developed shared challenge statements shaped through repeated interaction among financial-services firms and the project team.	More clearly multi-sponsor. Awarded propositions were often backed by more than one financial-services firm.	Reduced search and matching costs; accelerated product development and business development; shorter routes from lead to pilot; stronger diffusion conditions through multi-firm engagement.	Important design shift from sponsor-specific use cases to a shared pre-commercial challenge space with stronger conditions for collaboration and diffusion.
Call 3 (October 2024 to December 2024)	Consumer Duty compliance and related consumer-protection / fraud-compliance problems	Structured challenge model applied to Consumer Duty and adjacent compliance problems, including data, dashboards, communications, and fraud/compliance tools.	Sponsor-backed pre-commercial development with continuity in overall programme architecture.	Acceleration from proposition to credible pilot; operational time savings; support for measurable compliance and customer-outcome processes.	Extension of the FRIL model into another regulatory domain, suggesting that the mechanism is portable across different financial-services compliance challenges.

*Notes: (1) The three calls are treated here as related interventions in regulation-driven financial-services problem domains rather than as unrelated thematic exercises. (2) The table*

*summarises dominant design features and reported pathways evidenced in the current field materials rather than every individual case. (3) The progression from Call 1 to Call 2 is especially important because it indicates programme learning in the design of challenge-led ecosystem formation. (4) Reported productivity effects are best read as case-based evidence of plausible pathways rather than full causal estimates of aggregate productivity impact.*

Taken together, the three calls suggest that FRIL evolved from an initial sponsor-specific lead-user model towards a more collaborative challenge model, while remaining focused on regulation-driven adaptation in financial services. The programme progressively refined how sponsor firms, fintechs, and intermediaries were brought into structured interaction to address current problems. The calls were developed through repeated interactions between the FRIL team and participating financial services firms, with mini-steering groups giving sponsors scope to influence the agenda and shape the use cases. Over time, this helped move the programme from separate sponsor problems towards more shared challenge spaces. The significance of that shift is not merely organisational. It points to a set of mechanisms – clearer problem articulation, reduced search and matching frictions, faster pre-commercial validation, and improved conditions for reuse and diffusion – through which challenge-led innovation may support productivity-relevant adaptation. Those mechanisms, which we term ‘productivity pathways’ are the focus of the next section.

## **4. Productivity pathways in guided pre-commercial challenge spaces**

It is too early to claim direct measured productivity gains from FRIL in any aggregate sense. The programme is relatively small, the calls are recent, and the available evidence is strongest on use-case development, sponsor engagement, pilot formation, and reported operational effects within individual cases.

The six productivity pathways identified here are best understood as the product of an abductive reading of the evidence. They emerged through iteration between a sensitising conceptual frame drawn from the productivity, ecosystem, and procurement-for-innovation literatures, and recurring themes in the field materials from the first three FRIL innovation calls. In this sense, the analysis moved neither deductively from prior theory nor inductively from the empirical material alone, but through an iterative process of concept development and refinement (Sætre and van de Ven, 2021; van Hulst and Visser, 2025). The literature highlighted coordination, capability, diffusion, complementarity, adoption conditions, and institutional design as possible sites of productivity-relevant change (Adner, 2017; Coyle, 2021; Jones, 2023; van Ark, de Vries and Pilat, 2024). Recent work on public procurement for innovation further reinforces the importance of problem definition, capability mix, and the preconditions for adoption, while also warning against simplistic assumptions that innovation policy effects are easy to measure or attribute (Chiappinelli, Giuffrida and Spagnolo, 2025; Grimbert, Zabala-Iturriagagoitia and Valovirta, 2024; Kundu et al., 2025).

The empirical materials then showed repeated patterns around problem articulation, sponsor interaction, partner matching, pre-commercial validation, operational time-saving claims, and the growing possibility of reuse and diffusion across firms and calls. The pathways are

therefore an analytically informed account of where productivity-relevant effects appear most plausibly to arise in this programme. In Productivity Institute terms, the significance of FRIL lies less in direct measurement of firm-level productivity outcomes at this stage than in its apparent intervention in diffusion, coordination, capability formation, and adoption conditions (Coyle, 2021; Jones, 2023; van Ark, de Vries and Pilat, 2024).

The significance of these six pathways lies in the fact that FRIL did not intervene only at the level of individual firms and technologies. It intervened in the pre-commercial challenge space, through which firms, fintechs, and intermediaries recognised problems, aligned capabilities, tested solutions, and explored routes towards adoption. In that sense, the programme can be understood as acting on productivity-relevant coordination processes rather than only on particular innovation outputs.

#### **4.1 Problem articulation and regulatory translation**

A first pathway is better problem articulation. In regulation-intensive settings, one barrier to innovation is that firms often experience compliance pressure as a broad burden rather than as a clearly specified innovation problem. FRIL repeatedly converted diffuse regulatory and operational concerns into bounded use cases and challenge statements. This reduced wasted search and increased the chances that the innovation effort was directed towards a live operational need rather than a generic market opportunity.

This is clearly visible in Call 1. One funded firm described the programme's appeal as the opportunity to work closely with a large bank on a live onboarding problem and to deepen its understanding of the complexity of business account opening. The sponsor challenge itself was highly specific: roughly 65,000 new business accounts per year, five to seven working days to receive a full third-party report, three days to receive critical information, and 43% of applicants requiring manual intervention once flagged. In response, the work was narrowed to concrete deliverables focused on real-time data, automated risk logic, and prototype risk modelling. That is a vivid example of how a broad compliance burden was translated into a workable innovation challenge.

#### **4.2 Reduced search, matching and access frictions**

A second pathway is reduced search, reduced matching, and reduced access friction. The calls helped fintechs reach credible lead users and helped financial-services firms identify relevant solutions more quickly. In several cases, firms reported that FRIL materially shortened the path from initial contact to meaningful pilot engagement. This is exactly the sort of institutional friction that often slows the adoption of innovation in large organisations. The productivity relevance of such arrangements lies partly in the way ecosystem-like coordination can reduce search frictions, align complementary capabilities, and improve the prospects for validation, reuse and diffusion across organisations (Adner, 2017; Cozzolino and Geiger, 2024).

The ESG award materials provide especially strong evidence here. One firm reports that direct access to an industry partner and weekly calls saved at least nine months of business development time, because the programme created a route to understanding the customer problem and refining the solution against a live use case. Another firm reports that the time

for a lead to convert to a pilot in financial services is usually around six months, whereas the FRIL-supported pilot took a maximum of two months and avoided customer-acquisition costs because the programme itself created the relevant industry connections.

### **4.3 Pre-commercial validation and credibility-building**

A third pathway is pre-commercial validation and credibility-building. FRIL created a bounded space in which smaller innovative firms could demonstrate relevance before full procurement or formal commercial contracting. This is especially important for startups and scaleups that would otherwise struggle to qualify under ordinary supplier-assurance routines in procurement.

The participant material supports this strongly. In Call 1, one firm explicitly describes the value of being able to work closely with a large banking organisation, understand the complexities of onboarding in practice, and develop a functioning KYB product that would have been difficult to shape in isolation. In later calls, the same logic appears in a more developed form: firms are not only being exposed to a single sponsor but also gaining access to structured sponsor interaction, mentoring, and follow-on work that help them demonstrate organisational relevance before full commercial rollout. The value here lies not simply in technical testing, but in becoming credible in the eyes of large corporate users.

### **4.4 Operational efficiency and process improvement**

A fourth pathway is operational efficiency and process improvement. Several cases report concrete time and workflow savings, including reduced checking times, lower manual effort, faster monitoring, and improved reporting or dashboarding. These examples do not justify claims of programme-wide productivity impact, but they do show that the programme addressed processes in which compliance burden, manual intervention and delay could be materially reduced.

The refreshed materials are strong here. In Call 1, the proof of concept aimed to replace the three-day wait for critical information with real-time access to data and to reduce manual intervention associated with flagged cases. In the ESG material, one grant winner reports saving 75–110 hours per report and a roughly 90% reduction in processing time, while another estimates that sustainable investment teams could save around 2 weeks of work by querying verified primary data rather than relying on searches, downloaded reports, and manual requests. In the Consumer Duty and fraud-related material, one firm reports that intervention time fell from around 30 minutes per fraud case to under two minutes, alongside an estimated 90% reduction in time spent per case. Another reports large reductions across data collection and management effort, basic performance analysis and commentary generation, and report generation. These examples make the compliance–productivity connection tangible: not because regulation automatically creates efficiency, but because challenge-led innovation can help firms respond to regulatory pressure in ways that reduce manual effort, speed up information handling, and improve operational routines.

## 4.5 Diffusion and adoption conditions

A fifth pathway is diffusion and adoption conditions. One of the recurring weaknesses in productivity performance is not simply the creation of innovation, but the uneven spread of useful practices and tools. The move from sponsor-specific use cases to shared challenge statements in Call 2 created better conditions for learning and solutions to travel beyond single bilateral relationships.

The empirical material suggests that these wider effects were beginning to appear. One Call 1 firm reports that its enhancement project has opened opportunities not only with the original sponsor but also with other financial services companies and larger legal firms with onboarding obligations. In the ESG call, one firm describes follow-on opportunities, including a Government-linked programme and another financial services-related programme, while another refers to broader market-entry benefits linked to multi-sponsor exposure. These patterns do not constitute a formal network analysis, but they do indicate widening opportunities for validation, reuse, and diffusion across the ecosystem.

The emphasis on diffusion and adoption conditions is important. In much policy debate, innovation is still treated as if the main problem were invention alone. The FRIL evidence suggests otherwise. A substantial share of the relevant work lay in creating the organisational and inter-organisational conditions under which innovation could become adoptable: repeated sponsor interaction, recognition of shared problem spaces, the development of credibility, and the clarification of what would need to happen before procurement or wider use could follow. This is one reason the programme is useful for current debates on productivity and procurement alike.

## 4.6 Sponsor learning, orchestration and programme learning

A final pathway is sponsor learning, orchestration and programme learning. Across the first three calls, FRIL learned to structure interactions more effectively: from sponsor-specific use cases in Call 1 to shared challenge spaces in Call 2, with the structured pre-commercial model then carried into Call 3. But this was not only learning inside the project team. It was also learning among sponsor firms themselves, as repeated interaction made it easier to identify shared problems, build trust and support co-developed challenge spaces. In that sense, the programme was not simply producing outcomes within calls; it was refining the mechanism through which regulation-driven innovation could be organised.

Taken together, these pathways support a disciplined conclusion. FRIL does not yet provide a basis for claiming direct measured productivity gains at the programme level. It does, however, provide credible evidence that challenge-led innovation can intervene in recognised productivity-relevant processes: clearer problem articulation, lower search and matching costs, faster pre-commercial validation, reduced operational friction, and stronger conditions for diffusion. This, in turn, sets up the policy question: if these pathways matter, how should such programmes be designed?

## 5. Policy implications and design principles

The evidence from the first three FRIL innovation calls suggests that the policy value of challenge-led innovation lies not only in the specific projects funded, but in the design of the pre-commercial process through which problems are articulated, relationships are formed, and pathways to adoption are created. In this sense, design guidance is not separate from implementation. It is part of the mechanism that produces outcomes.

A first implication is that innovation calls should be treated as ecosystem-shaping instruments rather than merely as grant competitions. The value of the calls did not lie only in selecting winning firms. It also lay in convening sponsor firms, clarifying challenge areas, and creating a credible setting in which fintechs could engage with live problems.

A second implication is that problem articulation should be co-developed with participating end users before launch. The contrast between Call 1 and Call 2 shows how the problems are framed materially and how it affects the ecosystem that emerges around them. If the aim is to support wider ecosystem formation rather than isolated bilateral pairings, sponsors need structured opportunities to shape use cases together in advance.

A third implication is that repeated sponsor interaction matters. The mini-steering groups were not peripheral. They created a forum where financial services firms could compare priorities, build familiarity, and identify where apparently separate problems might be shared. One-off launch events are unlikely to be enough.

A fourth implication is that a clearly bounded pre-commercial space should be protected. The calls appear to have worked in part because participating firms understood the setting as exploratory and pre-commercial rather than as immediate procurement. This reduced pressure for premature contracting and made it easier to engage with novel suppliers around still-evolving problems. This is highly relevant to current UK procurement reform, where the Procurement Act 2023 has been framed as creating a more flexible procurement environment, particularly for smaller and innovative suppliers (Cabinet Office, 2025a; Cabinet Office, 2025b).

A fifth implication is that the main barrier is often not invention, but validation and access. Across the calls, the programme repeatedly helped fintechs move more quickly from proposition to credible pilot by giving them access to lead users, sponsor feedback and real organisational settings in which to test relevance.

A sixth implication is that challenge programmes should be designed with adoption pathways in mind. The pre-commercial stage is essential, but it is not enough on its own. This is where the paper connects most directly to the wider DSIT and procurement agenda. Challenge-led innovation and procurement reform are best understood as complementary policy instruments rather than separate domains (UK Government, 2025b).

A seventh implication is that evaluation should go beyond simple output measures. Counting funded firms, demo days, or immediate pilots misses much of what programmes like FRIL are doing. Important value was also created through sponsor learning, trust formation, improved problem articulation, reduced search costs, repeated participation by sponsor firms, and stronger conditions for diffusion and reuse.

We also identify procurement implications for innovative products and services. The FRIL case suggests that procurement-oriented innovation policy should pay more attention to the stage

before formal procurement begins. For many startups and scaleups, the immediate barrier is not innovation but the inability to demonstrate relevance, credibility and organisational fit under ordinary supplier-assurance, procurement, and contracting routines. Recent work on public procurement for innovation similarly argues that procurement can be generative or supportive of innovation, but only where needs are defined appropriately, the relevant capabilities are assembled, and public or institutional buyers can organise the route from problem recognition to adoption (Chiappinelli, Giuffrida and Spagnolo, 2025; Grimbert, Zabala-Iturriagoitia and Valovirta, 2024). FRIL indicates that challenge-led, pre-commercial processes can help address this by providing institutional users and innovative suppliers with a bounded space to articulate problems, test potential solutions, and clarify adoption pathways before formal procurement takes over. In this sense, challenge-led innovation and procurement reform should be treated as complementary rather than separate policy instruments (Cabinet Office, 2025a; Cabinet Office, 2025b; UK Government, 2025b).

More broadly, the lessons from FRIL align with other UK challenge-based innovation formats, including Scotland's CivTech programme and the FCA's TechSprints, both of which suggest that carefully designed challenge spaces can help reduce the distance between institutional demand and innovative smaller suppliers (CivTech, no date a; Financial Conduct Authority, 2020).

Taken together, these points suggest a broader lesson for innovation, productivity, and procurement policy. Small innovation calls can create wider economic value when they are designed not as isolated competitions for technical ideas, but as mechanisms for shaping and guiding pre-commercial ecosystems around current business and policy problems. In regulation-intensive sectors, this matters especially because firms are also responding to regulatory pressure, organisational adaptation, and changing expectations around data, reporting, governance and customer outcomes.

## 6. Conclusions

This paper has argued that the first three FRIL innovation calls are best understood not as separate competitions, but as an evolving mechanism for shaping and guiding a business/policy ecosystem around regulation-driven problems in financial services. The calls addressed different compliance domains – AI-enabled compliance simplification, ESG and sustainability compliance, and Consumer Duty compliance – and shared a common logic: each created a pre-commercial space in which financial services firms, fintechs, and intermediaries could articulate problems, test emerging solutions, and begin to establish pathways to pilot and adoption.

The evidence does not justify claims of direct measured productivity gains at the programme level. That would be premature. It does, however, support a disciplined conclusion. FRIL appears to have intervened in a set of recognised productivity-relevant processes: problem articulation, search and matching, pre-commercial validation, operational improvement, and diffusion. In doing so, it suggests that regulation can create focused demand for new tools, practices, and capabilities. Whether that demand becomes productive depends on the mechanisms available to help firms translate compliance requirements into workable organisational practice.

The broader policy lesson is that challenge-led innovation programmes are most valuable when treated as processes of guided ecosystem formation rather than only as competitions for promising firms. Their effectiveness depends on design: repeated sponsor interaction, co-developed challenge statements, clearly bounded pre-commercial spaces, and credible routes towards adoption. Where those conditions are present, even relatively small programmes can create wider value by reducing friction between innovation supply and institutional demand.

The paper has clear limits. It is based on three completed calls within one programme and does not claim a formal causal evaluation of productivity impact. The evidence is strongest on mechanisms, participant experience, sponsor interaction and reported operational effects within individual cases. This is consistent with wider academic caution that the impacts of innovation-oriented procurement and institutional innovation policy are methodologically difficult to isolate and assess cleanly (Kundu et al., 2025). The contribution is therefore best understood as a disciplined, shareable account of productivity-relevant pathways and design principles rather than a definitive impact assessment.

While derived from a specific programme in financial services, the productivity pathways identified here are likely to be shareable beyond FRIL itself. They should not yet be treated as universally generalisable in any strong causal sense, but they do offer portable policy insights for other challenge-led innovation settings in which regulatory or institutional pressures create demand for pre-commercial collaboration, validation and adoption support.

For policymakers, the central implication is that small challenge-led programmes can create value not only by supporting innovators, but by improving the conditions under which innovation becomes adoptable, usable and productive. For research, the implication is that the shaping and guiding of business/policy ecosystems around live regulatory problems deserves more sustained attention as a mechanism linking innovation, organisational adaptation and productivity.

Two short appendices follow. Appendix A summarises the evidence base and analytical approach used in the paper. Appendix B provides a compact overview of the first three FRIL innovation calls and the different challenge domains, sponsor configurations and pathway emphases they involved.

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## 8. Appendix A. Evidence base and analytical approach

This paper draws on pseudonymised programme materials from the first three Financial Regulation Innovation Lab (FRIL) innovation calls. The decision to focus on these three calls reflects the current state of the programme and the evidence available at the time of writing. Of the six innovation calls developed within FRIL, data from the first three provide sufficiently complete evidence for the present policy paper. One later call did not proceed to funded outcomes, one has completed the process but is not incorporated here, and one remains ongoing. The three calls analysed in this paper, therefore, provide the strongest evidence base for examining how challenge-led innovation calls operated in practice.

The evidence base includes use-case documents, company-level reports, award-outcomes summaries, and field-based involvement in the design and delivery of the calls. All company materials used for the analysis were pseudonymised. The aim of the paper is not to provide a formal impact evaluation or a full causal analysis of programme effects. Rather, it uses embedded programme evidence to identify recurring mechanisms, design features, and productivity-relevant pathways within the first three calls.

The three calls addressed different but related regulatory challenge domains in financial services. Call 1 focused on AI-enabled simplification of compliance and related regulatory operations. Call 2 focused on ESG and sustainability compliance. Call 3 focused on Consumer Duty compliance and related consumer-protection, fraud, inclusion and vulnerability issues. Although different in emphasis, all three calls were organised around the challenge of translating regulatory or compliance pressures into workable pre-commercial innovation opportunities.

The productivity pathways identified in the paper were developed abductively. They emerged through an iterative process between a sensitising conceptual frame drawn from the productivity, ecosystem, and procurement-for-innovation literatures and recurring themes in the empirical materials from the innovation calls. In this respect, the analysis followed an abductive logic of theory development and refinement rather than a purely deductive or inductive procedure (Sætre and Van de Ven, 2021; van Hulst and Visser, 2025). The literature highlighted coordination, capability, diffusion, complementarity, adoption conditions, and institutional design as possible sites of productivity-relevant change. The field materials then revealed repeated empirical patterns around problem articulation, sponsor interaction, partner matching, pre-commercial validation, reported operational time-saving claims, and the growing possibility of reuse and diffusion across firms and calls. The resulting pathways should therefore be read as analytically informed interpretations of where productivity-relevant effects appear most plausibly to arise in this programme.

The paper is based on engaged, field-based research rather than detached observation. The authors' involvement in the programme provided access to steering-group interaction, challenge development, sponsor discussions, demo-day evaluation and follow-on project activity. For the purposes of this policy paper, these materials are used not to make a formal action-research claim, but to interpret FRIL as an evolving intervention in challenge design, ecosystem guidance, orchestration/intermediation and pre-commercial innovation around regulation-driven problems.

This appendix also clarifies the scope of the claims made in the main text. The paper does not claim direct measured productivity gains at the aggregate programme level. Instead, it

identifies plausible and partly observed productivity pathways and distils design principles that may be shareable beyond FRIL itself, especially in challenge-led innovation settings where institutional demand, regulation or procurement shape the route from innovation to adoption.

## 9. Appendix B. Summary of the first three FRIL innovation calls

Innovation call	Main domain	Primary challenge character	Main sponsor/community feature	Main pathway emphasis
Call 1	AI-enabled compliance simplification	Operationally close to firms' existing compliance and reporting routines; emphasis on whether machine learning and AI could simplify regulatory and onboarding processes in ways credible to firms and regulators	More sponsor-specific and anchor-firm-centred; stronger emphasis on direct lead-user access and live operational problems	Problem articulation, access, early validation, operational process improvement
Call 2	ESG / sustainability compliance	More outward-facing and horizon-scanning; emphasis on newer reporting, assurance and knowledge challenges linked to ESG, sustainability data and emerging standards	More collective and multi-sponsor; broader shared challenge development across financial-services firms	Matching, validation, sponsor learning, diffusion and wider ecosystem coordination
Call 3	Consumer Duty / inclusion / fraud-compliance	More mixed social, digital and regulatory challenge; emphasis on customer outcomes, vulnerability, inclusion, fraud prevention, dashboards and evidence of compliance in practice	Broader community including retail banks, customer compliance teams and credit unions	Operational improvement, inclusion/vulnerability, adoption pathways, wider policy relevance

*Notes: (1) The three calls were all nested in compliance-related innovation, but differed in proximity to firms' existing operational concerns, the maturity of the regulatory domain, and the communities of participating organisations. (2) Call 1 was closest to existing firm-level compliance operations. Call 2 involved a more external and exploratory knowledge challenge around ESG and sustainability. Call 3 combined compliance with wider public-policy concerns around vulnerability, customer support and digital inclusion. (3) The variation across calls is analytically useful because it shows that the FRIL mechanism was not tied to a single regulatory topic, but was portable across different regulation-intensive problem domains.*

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