

Evaluation of the Regulators' Pioneer Fund (round 1) – Main Findings Report

Research Report Number: 2021/005

Kantar (Public Division)

Acknowledgements

The Better Regulation Executive (BRE) and Kantar Public UK would like to thank RPF applicants for their support during the research process. We would also like to thank Innovate UK (IUK) and the Department for Business, Energy and Industrial Strategy (BEIS) for their support and insight, particularly in the early stages of the Regulators' Pioneer Fund (RPF) evaluation.



© Crown copyright 2021

This publication is licensed under the terms of the Open Government Licence v3.0 except where otherwise stated. To view this licence, visit <u>nationalarchives.gov.uk/doc/open-government-licence/version/3</u> or write to the Information Policy Team, The National Archives, Kew, London TW9 4DU, or email: <u>psi@nationalarchives.gsi.gov.uk</u>.

Where we have identified any third-party copyright information you will need to obtain permission from the copyright holders concerned.

Any enquiries regarding this publication should be sent to us at: <u>enquiries@beis.gov.uk</u>

Contents

G	Glossary of key acronyms			5
E	xecuti	ive s	ummary	6
1	Int	Introduction		
	1.1 P	Policy	background and rationale for the Fund	_ 11
	1.1	1.1	The role of regulation in promoting innovation	_ 11
	1.2	The	e Regulators' Pioneer Fund	_ 12
	1.2	2.1	The RPF competition	_ 13
	1.2	2.2	Summary of the winning projects:	_ 14
	1.3	Stru	ucture of this report	_ 16
2	Me	ethoc	lology	_ 17
	2.1	Me	thod overview	_ 17
	2.1	1.1	Impact evaluation	_ 18
	2.1	1.2	Process evaluation	_ 18
	2.1	1.3	Evaluation timeline	_ 18
	2.2	Res	search approach	_ 20
	2.2	2.1	Scoping phase	_ 20
	2.2	2.2	Data collection	_ 20
	2.2	2.3	Analysis and reporting	_ 21
3	Ар	plyin	g to the RPF and preparatory activities	_ 24
	3.1	Re	gulators' understanding of the RPF	_ 24
	3.2	8.2 Regulators' motivation for applying for funding		_ 25
	3.3	.3 Experience of the RPF application		_ 26
	3.4	Preparatory activities and research		_ 27
	3.5	Team and project set up		_ 28
4	Im	Impact of the RPF		_ 30
	4.1	Overall impact		_ 30
	4.2	Stimulating and permitting the development of new business innovation		_ 32
	4.3	Reducing the time and cost of introducing new business innovation into markets $_$		_ 36
	4.4 Improving business or investor confidence in how business innovation will be regulated		_ 38	
	4.5	Imp	proving consumer confidence	_ 41
	4.6	Influencing other UK regulators		_ 43
	4.7	Infl	uencing other administrations	_ 46
5	Le	sson	s learnt	_ 49

5.1 O	perational: managing an innovation-enabling project	49
	Team resourcing and setting up internal governance	49
5.1.1	49	
	Project management capacity and approach	
5.1.2	51	
5.1.3	Understanding sectoral challenges and innovation applications	52
5.1.4	Approaching innovative technologies and models	53
5.2 Cu	ultural: fostering collaboration and knowledge sharing	54
5.2.1	Value of building links and networks to tackle shared challenges	54
5.2.2	Best practices in establishing and managing collaborations	56
5.2.3	Fostering internal commitment and collaboration	57
5.3 Fu	and design and administration: suggested improvements to the RPF	58
5.3.1	Upfront clarity on administrative requirements and governance	58
5.3.2	Longer application window and set up process	59
5.3.3	Flexibility with respect to the grant and spending profile	59
5.3.4	Monitoring and reporting flexibility	60
5.3.5	Supportive communications	61
5.3.6	Supporting the continuity of innovative projects	62
6 Implic	ations for future work	63
6.1 Le	essons for future work	63
6.2 O	ngoing evaluation	64

Glossary of key acronyms

Acronym	Definition
BEIS	Department of Business, Energy and Industrial Strategy
BRE	Better Regulation Executive
САА	Civil Aviation Authority
CQC	Care Quality Commission
FCA	Financial Conduct Authority
ICO	Information Commissioner's Office
IPO	Intellectual Property Office
MCA	Maritime and Coastguard Agency
MHRA	Medicines and Healthcare products Regulatory Agency
Ofcom	Office of Communications
Ofgem	Office of Gas and Electricity Markets
OGA	Oil and Gas Authority
RIN	Regulators' Innovation Network
RPF	Regulators' Pioneer Fund
SEPA	Scottish Environment Protection Agency
SRA	Solicitors Regulation Authority

Executive summary

In 2018 the Department for Business, Energy and Industrial Strategy (BEIS) set up the Regulators' Pioneer Fund, a competition to promote cutting-edge regulatory practices that help businesses bring innovative products and services to market.

The £10m Fund was set up to support regulator-led projects aimed at giving innovative businesses the confidence to invest, innovate and deploy emerging technologies for the benefit of consumers and the wider economy.

The key overarching aims of the RPF are:

- enabling economic growth;
- boosting value for consumers;
- fostering a pro-innovation business culture; and
- projecting a pro-innovation image internationally.

15 projects were awarded funding and decided to proceed with the project in October 2018 (see Project Descriptions Report for detailed descriptions)¹:

- **Care Quality Commission (CQC):** Support innovation in health and social care through new ways of engaging with innovative providers (e.g., sandboxing) and encouraging good models of innovation that can maximise benefits while keeping people safe.
- **Civil Aviation Authority (CAA):** Develop a new advisory service, create a new regulatory sandbox, and build a new regulatory lab to support the development of innovation.
- Financial Conduct Authority (FCA): Conduct a study into the feasibility of a crosssector regulatory sandbox.
- Financial Conduct Authority (FCA) (in partnership with Bank of England): Explore the feasibility of codifying and automating some reporting requirements to achieve significant burden reduction for businesses, as well as improve the accuracy of regulatory reporting and analysis.
- Information Commissioner's Office (ICO): Develop the Regulators' Business Innovation Privacy Hub to support other regulators to enable innovation within their sectors in a privacy-respectful way.
- Intellectual Property Office (IPO): Develop AI-based solutions to improve the speed with which innovators and organisations can register an intellectual property right (IPR) or trademark application.
- Medicines and Healthcare products Regulatory Agency (MHRA) with NHS Digital: Develop synthetic datasets of patient data that can be used by innovators and researchers to validate and develop innovative medical devices and software without risks to patient privacy.

¹ In the early stages of the programme, one project decided not to progress. See main report for more details (section 1.2.2).

- Office of Communications (Ofcom): Build a blockchain-based platform for the management and porting of telephone numbers to increase consumer security, improve switching and competition, and cut costs for telephone firms.
- Office of Gas and Electricity Markets (Ofgem): Set up a secure data exchange system which standardises data collection and enables a transformation in the way data is exchanged and managed between regulated marketplace participants.
- Office of Gas and Electricity Markets (Ofgem): Establish the Future Services Lab, which introduces Ofgem's policy designers to agile and user-centred design methodologies so that future energy regulation is created in more consumer-centric and rapid-tested ways.
- **Oil and Gas Authority (OGA):** Collaborate with other regulators and bodies to explore how the UK's existing oil and gas infrastructure can support the take up of clean technologies and solutions from businesses, to accelerate the UK's national transition to net zero emissions.
- Scottish Environment Protection Agency (SEPA): Establish formal collaboration with regulators in the decommissioning sector through the establishment of the Decommissioning Regulatory Hub, to ensure a more joined-up and efficient regulatory experience for businesses.
- Solicitors Regulation Authority (SRA) with Nesta: Launch a competition, the "Legal Access Challenge", providing funding to innovators to develop technologies that broaden access to legal services, particularly for segments of society under-served by the market at present.
- Maritime and Coastguard Agency (MCA): Establish the Maritime Autonomy Regulation Lab (MARLab), where regulators from the MCA and the Department for Transport can work with academia to support industry to promote on-water testing and projects on autonomous shipping.

About the evaluation

Kantar (Public Division) was commissioned by BRE in 2018 to undertake an evaluation of the RPF programme aiming to:

- Determine the extent to which the RPF delivered against its intended goals.
- Identify learnings for Government and regulators, including for potential future funding rounds.

An iterative, mixed-method approach was adopted, which combined elements of impact and process evaluation. The Kantar project team collected data on funded regulators' experiences, challenges and achievements both at an interim stage and following completion of the funding period. The evaluation aimed to build a comprehensive understanding of progress and lessons learnt across the RPF lifespan.

Data collection was based around a series of qualitative case studies with selected regulators and stakeholders, the periodic collection of quantitative management information from regulators, and a final survey of project stakeholder views, allowing findings to be triangulated around these different perspectives. A series of 'wash-up' workshop sessions were also conducted with regulators at the end of the programme to collect their final reflections on the experience of participating in the RPF (all data collection approaches are explained in greater detail in section 2.2.2). The evaluation consisted of two main areas of investigation:

- Impact evaluation
 - Project activities, outputs and outcomes were assessed against seven expected outputs formalised in the programme project logic model, using contribution analysis to draw inferences about the likely impact direction towards intended long-term outcomes and impacts.
- Process evaluation
 - Data was analysed to identify ways in which policy measures like the RPF could better support regulators in potential future iterations, drawing primarily on regulator and other stakeholder experiences of interacting with the Fund and carrying out their funded innovation activities.

Evaluation findings: Impact

Given the macro and long-term nature of the final programme outcomes, analysis focused on assessing the achievement of intermediate activities, outputs and outcomes in the programme logic model. The evaluation sought to identify progress to date and draw inferences about the long-term direction of travel.

Findings from this evaluation suggest that the RPF has been largely successful at enabling funded projects to make progress towards the programme outcomes.

Success is not distributed equally across all of the outcome measures. Evidence indicated that the programme has been particularly successful at stimulating and permitting the development of new business innovations amongst regulators, with a number of new products and processes currently in trial, developed directly as a result of the Fund.

The evaluation found the following progress against each of the key programme outcomes:

- RPF regulator(s) stimulates / permits development of new business innovation (e.g. products, services, processes, business models):
 - Strong positive indications of progress towards the outcome of stimulating and permitting the development of new business innovation, such as products, services, processes and business models. Although no new products had been launched into markets within the 18-month timeframe of the RPF programme, 15 new products, processes or services had entered trials as a result of project activities.
- RPF regulator(s) reduces time or cost of introducing business innovation into markets (e.g. products, services, processes, business models):
 - Positive indications of success were found against the outcome of reducing the time and cost of introducing new business innovation into markets. Regulators were confident that they have achieved this aim, documenting a number of businesses benefiting from reduced time and cost as a result of better advice provided due to the RPF. Some regulators also expected the future launch of innovations due to their projects to lead to further positive outcomes. The majority of stakeholders surveyed in the closing questionnaire also agreed that support they had received from regulators had helped to reduce the time and cost of innovation.

- RPF regulator(s) **improves business or investor confidence** in how business innovation (e.g. products, services, processes, business models) will be regulated:
 - Although changes in aggregate business and investor confidence are challenging to evidence within the 18-month timeline of the RPF programme project, the evaluation detected **some positive indications of success** against this outcome and its related outputs. Most of the evidence against this outcome relates to engagement with businesses and stakeholders (both as activities and outputs) and ensuring positive media coverage for their work, supported by positive feedback in the final stakeholder survey.
- RPF regulator(s) improves consumer confidence in regulation of business innovation (e.g. products, services, processes, business models):
 - Compared to other measures there is **limited evidence of progress** towards this outcome. It must be acknowledged that this is a challenging outcome to evidence within the scope of this evaluation given that both outputs and outcomes involving consumers are expected to occur in the longer-term, placing them outside the timeframe of this work.
- RPF regulator(s) **influences other UK regulators** to take a pro-innovation regulatory approach:
 - This evaluation detected some positive indications of progress against this outcome, as well as contributory evidence of achievement against its related outputs and activities, with extensive evidence of sharing learnings both within the RPF network and without. Regulators documented instances of engagement between regulators, including those outside of the RPF, and new regulatory partnerships.
- RPF regulator(s) **influences other administrations** to align with its regulatory approach:
 - This evaluation detected very early positive indications of success against this outcome, as well as evidence of achievements against its related outputs and activities. Regulators reported engagement with international administrations via conferences or more formal approaches. In some cases, these had led to further engagement with international regulators interested in the project innovation.

Evaluation findings: Progress

Experiences of applying to the RPF:

- Regulators clearly understood the purpose of the RPF to be about encouraging innovation, promoting cutting-edge regulatory practices and changing regulator approaches to new technologies.
- Regulators were usually driven to apply for funding by an existing interest in innovation and saw the RPF as an opportunity to acquire the resources necessary to better understand and address existing innovation challenges.
- RPF applicants largely considered the timeframe for the competition in 2018 to be too short, either in terms of advance notice given or the competition period. They felt that this somewhat limited the resources that they were able to put towards the application and the potential for collaboration with others.

- Regulators reported that preparatory activities such as user research, workshops and consultations with internal and external stakeholders, or investigating similar innovation efforts in other sectors, was a major contributor to success.
- Prior to starting their project's core phases of work, regulators spent time setting up their projects, recruiting the project team, creating work plans and establishing processes.

Operational experience and learnings:

Timely resourcing of projects was often a challenge for regulators, including the sourcing of individuals with the correct skills, and some regulators felt the project had raised lessons about the importance of having a team focused on innovation. Investment in the establishment of clear internal management processes was also highlighted as an important element of delivery.

Evaluation conclusions and recommendations

A series of recommendations emerged for how future initiatives aimed at increasing innovative practices amongst regulators could encourage best practice based on learnings from this work:

- There was a very clear thread in the evaluation showing the importance of creating or achieving senior internal buy-in for the success of projects, which should be stressed in future guidance and supported where possible.
- There was a clear benefit to understanding the needs and challenges of innovators at an early stage to help navigate the regulatory landscape, via user research or proactive outreach activities. If possible, a consideration of this should be encouraged in application activities.
- Likewise, future guidance and application processes could drive a greater consideration of project continuation at the outset, to ensure that projects can continue to build on progress following the end of funding.
- Given the innovative nature of projects, future investment in this kind of innovative project could benefit from a more flexible system of funding, with less rigid constraints on the timing of spend that enables more agile and flexible project management.
- Cross-sector forums such as the Regulators' Innovation Network are seen as invaluable tools for fostering collaboration, and there is value in continued support of such initiatives.
- Future evaluation for this kind of work could benefit from a greater recognition of the diversity of project aims in reporting materials and metrics, potentially mapped in line with milestones for project monitoring against financial objectives.

Overall, regulators were keen for the Better Regulation Executive (BRE) and BEIS to continue to play a supportive role in showcasing regulators as more than just law enforcement agencies.

Whilst this evaluation has produced convincing evidence of progress towards the goals of the Fund, it is worth bearing in mind that the strength of this evidence is necessarily limited by the timeframe of this research. Further follow-up case studies with regulators and key stakeholders could enable an updated understanding of longer-term outcomes.

1 Introduction

1.1 Policy background and rationale for the Fund

The UK Government's Industrial Strategy (2017)² set out a plan "to create an economy that boosts productivity and earning power throughout the UK", built around four 'grand challenges' related to artificial intelligence and data, clean growth, an ageing society and the future of mobility. These challenges are to be supported by five key foundations of productivity (Ideas, People, Infrastructure, Business Environment, Places), within an innovative economy creating a supportive environment for starting a business. Regulation plays a key role in influencing innovation and stimulating investment in the economy. The UK Government has an aim to create a regulatory environment that gives businesses the confidence to invest, innovate and deploy emerging technologies for the benefit of consumers and the wider economy.

In a 2017 report, innovation charity Nesta provided a framework for understanding different modes of regulatory operation, with respect to innovation, and ideas on how to drive regulatory reform³. Similarly, research published by the IPPR (Institute for Public Policy Research) Commission on Economic Justice has highlighted the important role that regulation can play in supporting innovation in sectors such as energy ⁴.

In 2018 the Prime Minister's Council for Science and Technology published advice to the Prime Minister on how to make the UK regulatory landscape more favourable to innovation and investment, with a specific recommendation for greater regulatory experimentation and learning⁵. The advice cited the Regulators' Pioneer Fund programme as an example of how this can be achieved and endorsed an extension of the Fund beyond its then existing funding cycle and its scope.

1.1.1 The role of regulation in promoting innovation

Regulation generally refers to policies whereby the government acts as a referee to oversee market activity and the behaviour of private actors in the economy⁶. Effective regulation is vital for supporting economic growth and promoting competition, as well as protecting consumers, employees and the environment. However, regulation can also be perceived to impose barriers to innovation, by restricting the development of new, improved products and processes; limiting research efforts by firms, or the choice of technologies that are explored and adopted; and increasing the uncertainty and costs of the development process.

There are more than 90 regulators in the UK covering sectors ranging from private markets, like banking or utilities, to public or mixed markets, like healthcare or education. The Government guidance to regulators in recent years has been to consider alternatives to prescriptive regulation. However, research by the National Audit Office (NAO) in 2014⁷ found that regulators favour a prescriptive regulation approach as a tool because it demonstrates more 'decisive action' than alternatives such as education, market-based structures, self-

- ⁶ Organisation for Economic Co-Operation and Development (OECD). Regulatory Reform and Innovation.
- ⁷ National Audit Office (NAO). 2014. Using Alternatives to Regulation to Achieve Policy Objectives.

² Department for Business, Energy and Industrial Strategy. 2017. *Industrial Strategy: building a Britain fit for the future*

³ Nesta (2017) A working model for anticipatory regulation: A working paper

⁴ The IPPR Commission on Economic Justice. 2017. *Time for Change: A New Vision for the British Economy.*

⁵ Council for Science and Technology (2018) *Reforming the governance of technological innovation*

regulation or co-regulation. They also identified an aversion to risk and a lack of knowledge of alternatives to regulation among regulators and Government policy staff. The NAO's research suggests that there is a need to adapt existing regulatory processes to allow for new ways of working and encourage innovative practices.

More recently, Nesta highlighted new pressures facing regulators, including the rapid speed at which new innovations are scaled, the erosion of sectoral and national boundaries, and growing inequalities and power asymmetries between actors in the market⁸. The UK is likely to continue to see fast-paced change as a result of the above shifts, at the same time as it seeks to seize opportunities arising from the UK's departure from the EU.

It is within this context – one of opportunity and necessity – that the Department for Business, Energy and Industrial Strategy (BEIS) set up the Regulators' Pioneer Fund, a competition to promote cutting-edge regulatory practices that help businesses bring innovative products and services to market.

1.2 The Regulators' Pioneer Fund

The Regulators' Pioneer Fund (henceforth RPF or the Fund) was launched by the Better Regulation Executive (BRE) within BEIS in 2018. The Fund's objective is to promote cuttingedge regulatory practices to help make the UK the world's most innovative economy, whilst protecting citizens and the environment. The £10m Fund was set up to support regulator-led projects aimed at giving innovative businesses the confidence to invest, innovate and deploy emerging technologies for the benefit of consumers and the wider economy.

The key overarching aims of the RPF are summarised below:

- enabling economic growth;
- boosting value for consumers;
- fostering a pro-innovation business culture; and
- projecting a pro-innovation image internationally.

RPF put together an original programme logic model to specify the aims of the programme. This provides a framework for mapping the objective of the fund and milestones towards achieving these at an aggregate level, with funded projects not expected to perform against all the outcomes listed. This logic model has since been updated to provide a more granular account of the intermediate steps towards achieving long-term outcomes to help inform the evaluation (see the Technical Report for both the original and revised logic models).

⁸ Nesta. 2019. 'Anticipatory Regulation' in an Age of Disruption.

1.2.1 The RPF competition

The Better Regulation Executive (BRE) awarded £10 million to be spent over the course of 18 months across 14 innovative projects. The projects focused on addressing the four 'grand challenges' and opportunities identified by the Industrial Strategy, funding regulators to undertake novel and experimental work to support business innovation in their sectors.

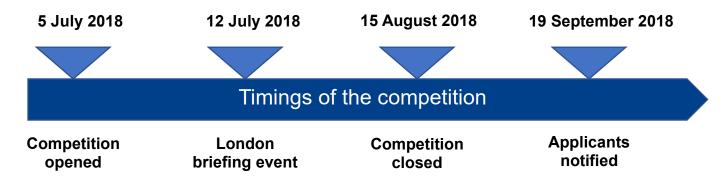
The opportunity to receive RPF funding was open to any body exercising a 'regulatory function', as defined in the Legislative and Regulatory Reform Act 2006; performing a regulatory function covering Scotland, Wales, Northern Ireland, England or the whole UK; subject to Managing Public Money requirements, or able to demonstrate compliance with Managing Public Money principles with respect to funding received through the RPF; and regulating businesses rather than solely individuals.

To be selected, projects were required to aim to either (i) enable major improvements in a particular sector or (ii) bring multiple regulators together to explore 'cross-cutting' issues of shared interest. Proposals needed to demonstrate clear benefits to businesses seeking to bring innovative products and services to market.

A competition to select projects for funding was run by BRE and Innovate UK and took place between July and September 2018 (see Figure 1). Innovate UK were responsible for delivering the competition and on-going monitoring of projects. Selected projects received grant funding up to a total of £1 million each. Projects were required to start by October 2018, end by March 2020 and could last between six and eighteen months.

A briefing event was held jointly by BRE and Innovate UK in London for potential applicants in July 2018. The event was an opportunity to introduce the RPF and the competition requirements. Innovate UK took potential applicants through the application process, outlining the eligibility criteria and how to write and submit their application. Potential applicants were also given information on how their applications would be assessed and how project set-up would operate for successful applicants.

Figure 1: Timeline for the RPF competition



1.2.2 Summary of the winning projects:

15 projects across 12 regulators were selected for participation, 14 of which continued and completed their projects⁹, spanning a range of sectors and each with different overarching goals connected to the aims of the RPF. Some projects focused on supporting the live testing of innovations, such as through regulatory sandboxes¹⁰, while others aimed to foster collaboration between regulators, or to develop and apply innovative technological or policy solutions to support regulators and businesses to unblock market entry for innovation.

The projects and their key goals were as follows (a more comprehensive description of each project can be found in the Product Descriptions & Case Studies Report):

- **Care Quality Commission (CQC):** Support innovation in health and social care through new ways of engaging with innovative providers (e.g. sandboxing) and encouraging good models of innovation that can maximise benefits while keeping people safe.
- **Civil Aviation Authority (CAA):** Develop a new advisory service, create a new regulatory sandbox, and build a new regulatory lab to support the development of innovation.
- Financial Conduct Authority (FCA): Conduct a study into the feasibility of a crosssector regulatory sandbox.
- Financial Conduct Authority (FCA) (in partnership with Bank of England): Explore the feasibility of codifying and automating some reporting requirements to achieve significant burden reduction for businesses, as well as improve the accuracy of regulatory reporting and analysis.
- Information Commissioner's Office (ICO): Develop the Regulators' Business Innovation Privacy Hub to support other regulators to enable innovation within their sectors in a privacy-respectful way.
- Intellectual Property Office (IPO): Develop AI-based solutions to improve the speed with which innovators and organisations can register an intellectual property right (IPR) or trademark application.
- Medicines and Healthcare products Regulatory Agency (MHRA) with NHS Digital: Develop synthetic datasets of patient data that can be used by innovators and researchers to validate and develop innovative medical devices and software without risks to patient privacy.
- Office of Communications (Ofcom): Build a blockchain-based platform for the management and porting of telephone numbers to increase consumer security, improve switching and competition, and cut costs for telephone firms.
- Office of Gas and Electricity Markets (Ofgem): Set up a secure data exchange system which standardises data collection and enables a transformation in the way data is exchanged and managed between regulated marketplace participants.

⁹ In the early stages of the programme, Ofgem decided not to progress its Energy Market Challenge project – for more detail, see page 67.

¹⁰ A regulatory sandbox allows innovators to explore or trial new products, services and/or business models in a real-world environment without some of the normal rules applying – to enable experimentation and with support and supervision from the regulator (Ofgem)

- Office of Gas and Electricity Markets (Ofgem): Establish the Future Services Lab, which introduces Ofgem's policy designers to agile and user-centred design methodologies so that future energy regulation is created in more consumer-centric and rapid-tested ways.
- Office of Gas and Electricity Markets (Ofgem)¹¹: Launch the Energy Market Challenge, to provide a safe environment for innovative firms to develop and implement ideas for consumer switching that better serve retail customers.
- Oil and Gas Authority (OGA)¹²: Collaborate with other regulators and bodies to explore how the UK's existing oil and gas infrastructure can support the take up of clean technologies and solutions from businesses, to accelerate the UK's national transition to net zero emissions.
- Scottish Environment Protection Agency (SEPA): Establish formal collaboration with regulators in the decommissioning sector through the establishment of the Decommissioning Regulatory Hub, to ensure a more joined-up and efficient regulatory experience for businesses.
- Solicitors Regulation Authority (SRA) with Nesta: Launch a competition, the "Legal Access Challenge", providing funding to innovators to develop technologies that broaden access to legal services, particularly for segments of society under-served by the market at present.
- Maritime and Coastguard Agency (MCA): Establish the Maritime Autonomy Regulation Lab (MARLab), where regulators from the MCA and the Department for Transport can work with academia to support industry to promote on-water testing and projects on autonomous shipping.

Projects were managed by a team appointed by the regulator, who took responsibility for all core activities, as well as financial management and reporting. Innovate UK monitored projects to ensure that they were managed appropriately and complied with the terms and conditions of the award. All projects were monitored on a quarterly basis, with regular visits from an assigned Monitoring Officer. Monitoring was carried out against a detailed project plan and financial forecast. Claims for project funding were only paid once quarterly reporting and necessary audits were completed.

The monitoring activity described above was conducted separately to this evaluation and did not feed into the findings in this document.

¹¹ Ofgem decided not to progress this project – for more detail, see page 67

¹² OGA was awarded RPF funding following the withdrawal of the UK Space Agency early in the RPF programme.

1.3 Structure of this report

The remainder of this report is structured around the different kinds of learnings arising from this evaluation. Section 2 provides an overview of the evaluation methodology (with further details in the Technical Report). Section 3 explores regulators' experiences of the Fund before beginning their projects, to set the context for later sections and draw out lessons related specifically to the application process. Section 4 presents findings on the impact of the Fund, drawing out indicators of success against each of the key programme outcomes from across projects. Section 5 explores regulator experiences of the RPF programme more generally, to identify wider insights around how BEIS could continue to support innovation amongst regulators. Section 6 ties together findings from the rest of the report to present the overall key conclusions and lessons learned from the evaluation.

Throughout the report quotations gathered through the research process have been included to further illustrate and evidence certain points. Some of these quotations are attributed and others are not as some stages of the research, by design, were confidential. The quotes with attribution are drawn from the case studies, which were conducted 'on the record' and have been verified with interviewees and interview subjects.

2 Methodology

2.1 Method overview

Kantar (Public Division) was commissioned by BRE in 2018 to undertake an evaluation of the RPF programme to:

- Determine the extent to which the RPF delivered against its intended goals.
- Identify learnings for Government and regulators, including for potential future funding rounds.

An iterative, mixed-method approach was adopted, which combined elements of impact and process evaluation. The Kantar project team collected a wide range of data from regulators and other key stakeholders on their experiences, challenges and achievements both at an interim stage and following completion of the funding period to build a comprehensive understanding of their progress and lessons learnt across the RPF lifespan.

Contribution analysis (see the Technical Report for further details) was the analytical approach used to draw inferences about the achievement against the Funds outcomes as specified in the logic model. Management information was collected to provide an underpinning of quantitative metrics to case studies, via a series of self-reported measures relating to the completion of specific activities, outputs and outcomes. A qualitative approach also enabled a more grounded understanding of how regulators' and others experienced the Fund, helping to inform the process elements of this evaluation.

The last stages of this project, including aspects of the research and analysis, took place during the 2020, in the midst of the ongoing COVID-19 pandemic. As a result, some aspects of the research, such as the wash up sessions, employed socially distanced qualitative research techniques, utilising video conferencing technology. Other impacts on the project include:

- Projects had 3 extra months to complete work areas where needed.
- Projects reported that some elements of their work were affected by COVID-19 (e.g. delaying comms and publications of reports (CQC), holding one to one meetings instead of roundtable events (SEPA), and having virtual events instead of live events etc).
- Some regulators proactively spotted that their RPF projects had scope to support the Government's response to COVID-19 and made positive changes to their original RPF project plans or used the knowledge and outputs from RPF to respond to the global pandemic. For example, the MHRA used the RPF funding to release COVID synthetic datasets which will support the development of cutting-edge medical technologies to fight the virus. The CAA's Innovation Hub changed its plans and launched a COVID-19 regulatory sandbox in April 2020 to assess the feasibility of the drone delivery to help the response. They trialled a two-way flight between Lorn and Islands Hospital in Oban and Mull and Iona Community Hospital in June 2020. Although the funding for this came from the Future Flight Challenge (not RPF), this fast response would not have been possible without the existence of the Innovation Hub and the knowledge and experience gained from the RPF.

2.1.1 Impact evaluation

The impact evaluation aimed to assess how well the RPF was able to meet the programme goals defined at its inception. The evaluation was structured around the initial RPF policy logic model developed by BEIS (see Technical Report). This logic model was updated during the evaluation to reflect the evidence gathered (see Figure 3).

An assessment was carried out by mapping projects' activities, progress and achievements detected through the data collection - against seven expected outputs formalised in the extended logic model. It should be noted that the extent to which this evaluation was able to assess the full extent of RPF's impact was limited for three key reasons:

- The evaluation was only able to measure activities, outputs and outcomes achieved during the evaluation period and not the longer-term outcomes or impacts arising as a result of the RPF programme.
- Much of the data was self-reported, and some of the sample self-selected, therefore caution must be taken when interpreting the findings.
- Conducting an experimental evaluation would be very challenging for this type of policy, therefore the impact evaluation provides a qualitative description of impact as opposed to a quantitative or causal measure.

Given the limitations, a Contribution Analysis approach was adopted to assess progress relative to the programme logic model. Views from across multiple data points were triangulated to understand the extent to which the programme had contributed to the activities, outputs and outcomes realised.

In interpreting the findings, it should also be kept in mind that the COVID-19 pandemic occurred during the course of projects, and some regulators reported that this affected their plans for closing their projects and for realising further benefits from their work.

2.1.2 Process evaluation

The process evaluation component of the research focused on identifying ways in which a policy measure like the RPF could better support regulators in potential future iterations, exploring regulator and other stakeholder experiences of interacting with the Fund and carrying out their funded innovation activities.

Insight was drawn from a range of data sources to identify lessons learnt at all stages of involvement with the programme, from the application process through to set up, delivery and findings dissemination.

2.1.3 Evaluation timeline

A detailed breakdown of research activities and timings is outlined in Figure 2 below. All research materials can be found in the Technical Report.

Figure 2: Timeline of evaluation activities

September – December 2018 Application process completed	Scoping phase including an online community with 17 RPF applicants, and focus groups with BEIS and Innovate UK staff.
April 2019 6 months into projects	Wave 1 of quarterly information management questionnaire to collect metrics and monitoring data from regulators
July / August 2019 9 months into projects	Interim case studies with Solicitors Regulation Authority (SRA), Civil Aviation Authority (CAA) and Medicines and Healthcare Products Regulatory Agency (MHRA)
July 2019 9 months into projects	Wave 2 of quarterly information management questionnaire to collect metrics and monitoring data from regulators
November / December 2019 14 months into projects	Interim case studies with Financial Conduct Authority (FCA – Digital Regulatory Reporting project) and Oil and Gas Authority (OGA).
January 2020 15 months into projects	Wave 3 of quarterly information management questionnaire to collect metrics and monitoring data from regulators
March 2020	Wave 4 of quarterly information management questionnaire to collect metrics and monitoring data from regulators
April – July 2020 Project completion	Final case studies with Scottish Environment Protection Agency (SEPA), Care Quality Commission (CQC), Information Commissioner's Office (ICO), Intellectual Property Office (IPO) and Ofcom. Follow-up case studies with SRA and CAA
May – July 2020 Projects completed	Closing questionnaire with businesses and other stakeholders (45 responses received)
July 2020 Projects completed	Wash up workshop sessions with regulators jointly
July – November 2020 💻	Recommendations development and reporting

2.2 Research approach

2.2.1 Scoping phase

An initial scoping stage was carried out by Kantar to build a solid understanding of the RPF's design and application phase, examining applicants' experiences of the competition to identify initial lessons for improvement.

This phase involved an initial light-touch review of the applications for funding and key related documents, followed by an online community of nine RPF applicants, four successful and five unsuccessful. Discussion within the community allowed the Kantar research team to explore regulators' experiences and views of the application process, to identify positive elements as well as components that could be improved.

A workshop, including four themed discussion sessions around various elements of regulatory reform¹³, was also conducted with BRE and Innovate UK staff to explore in greater depth any issues identified in the applicant discussions. Views were triangulated during the analysis process to provide BEIS in January/February 2019 with a holistic understanding of how effectively and efficiently the RPF competition was delivered.

2.2.2 Data collection

A range of data collection activities were carried out and are explained below. See the Technical Report for further details of the methodology, and the topic guides. See the Case Study Reports for the case study findings.

Quarterly information management questionnaire

Information management and monitoring data was collected from regulators on a quarterly basis via an online questionnaire. Collection started in July 2019 when projects were six months into their delivery and continued until March 2020 when most projects were completed. Questions were developed to enable the collection of quantitative metrics and indicators of success against intended programme outcomes (see the RPF policy logic model in Figure 3)

The format of the questionnaire was reviewed following each wave based on feedback from the regulators and discussion with BEIS. After the first wave, open questions were implemented to allow regulators to provide more information.

Data was thoroughly reviewed each quarter to support the monitoring of projects and the identification of key changes or challenges as they arose over time.

Interim and final case studies with regulators and stakeholders

Five **interim qualitative case studies** were carried out between July 2019 and January 2020 with regulators chosen by BEIS and Kantar to reflect a range of views, experiences, project aims and progress achieved against these. For each project, the research team conducted two 60-minute interviews with key members of the project team (e.g. project and programme manager or bid manager, depending on team composition) and one with a strategic lead overseeing the project. Two to three 30-minute interviews were also conducted with

¹³i) Improving access to regulatory advice, ii) Experimentation and testing, iii) Competitions, challenges and opening up data, and iv) Feasibility studies/Improving regulatory practices

stakeholders (e.g. delivery partners, businesses or other organisations operating in the sectors, other regulators) identified by the regulators and selected by BEIS.

Final qualitative case studies were conducted between April and June 2020 (five final case studies and two further follow ups to interim case studies) following the same format. Follow-up 60-minute qualitative interviews were also conducted with two of the regulators interviewed at the interim stage selected by BEIS. These interviews were used to determine how their projects had progressed since the interim stage and provide an updated view of their activities, challenges, achievements and lessons.

Both the interim and final case studies aimed to uncover early outcomes and lessons on delivery of the Fund by collecting and triangulating across the views of a range of actors with different perspectives on the chosen projects.

Closing questionnaire

A ten-minute online closing questionnaire was conducted with project stakeholders, such as businesses, innovators, and other regulators or public bodies, following the completion of project activities (between May and July 2020). This emailable survey included both quantitative metrics and open-ended questions.

The closing questionnaire metrics and questions mirrored topics covered in the case studies and quarterly information management questionnaire, seeking to validate information gathered from RPF project teams and their stakeholders.

The survey received a total of 45 responses. As respondents were self-selecting the findings are not generalisable or representative of all parties related to the Fund. However, they provide a useful additional data point on stakeholder views against which to triangulate findings.

'Wash up' sessions with regulators

As a final activity linked to the process evaluation, Kantar conducted two online qualitative 'wash up' workshops with regulators in July 2020. Four regulators were invited to take part in each session to maximise engagement and enable in-depth discussion.

The first workshop focused on projects that had experimented with new methods to innovate in their sectors, and the second on projects that had focused on collaboration. The wash up sessions presented an opportunity for regulators to reflect on any challenges and lessons from the projects, and to discuss ways of collectively continuing with innovation into the future.

2.2.3 Analysis and reporting

Analysis of the impact of the RPF was framed around the extended programme logic model, which describes the intended programme outputs:

- RPF regulator(s) stimulates / permits development of new business innovation (e.g. products, services, processes, business models);
- RPF regulator(s) reduces time or cost of introducing business innovation into markets (e.g. products, services, processes, business models);
- RPF regulator(s) **improves business or investor confidence** in how business innovation (e.g. products, services, processes, business models) will be regulated;

- RPF regulator(s) **improves consumer confidence in regulation of business innovation** (e.g. products, services, processes, business models);
- RPF regulator(s) **influences other UK regulators** to take a pro-innovation regulatory approach; and
- RPF regulator(s) **influences other administrations** to align with its regulatory approach.

Kantar worked with BEIS to produce an extended logic model clearly delineating inputs, activities and outputs. This extended model distinguished more immediate project-related outcomes from the longer-term outcomes and impacts arising as a result of the RPF programme (see Figure 3 below). This extended model does not alter any of the intended long-term outcomes for the RPF but provides additional layers of granularity on the steps towards achieving them, allowing a more effective assessment.

Figure 3: the extended logic model developed by Kantar and BEIS as part of the evaluation

INPUTS	ACTIVITIES	OUTPUTS	OUTCOMES	LT OUTCOMES	
£10m to 14 regulator-led projects	RPF regulator(s) sets up and runs sandboxes and challenges	Innovators are interested in / apply to RPF regulators' initiatives – i.e. sandboxes and challenges	RPF regulator(s) stimulates / permits development of new business innovation (e.g. products, services, processes,	Increased generation of ideas (e.g. products, services, processes, business models) by businesses operating in the UK	
Opportunity for conducting	RPF regulator(s) engages with businesses and innovators in their sectors	Innovators work on the development of new technologies as a result of	/ technologies as a result of		
innovative project	RPF regulator(s) sets challenging outcomes or release new information for innovators	sandboxes, challenges or new information		Increased investment in innovation by businesses in the UK	
Mandate for innovation activities	RPF regulator(s) provides better, more	Innovators access new advice / simplified processes	RPF regulator(s) reduces time or cost of		
BRE team's	immediate advice (to reduce time and cost of innovation)	Innovators benefit from new regulatory advice / simplified processes processes, business movation into markets (e.g. products, services, processes, business models)	Increased competition (i.e. increased entry and exit) in UK markets)		
support	RPF regulator(s) simplify processes and/or develop and adopt new technologies (to cut	Innovators trial new technologies			
	time / cost of innovation)	Innovators launch new technologies		Increased consumption of innovation (e.g. through greater consumer confidence) – i.e.	
	RPF regulator(s) engages with businesses and stakeholders in their sectors	Increased RPF regulators' engagement with business / stakeholders in the sector	RPF regulator(s) improves business or investor confidence in how business innovation (e.g. products, services,	increased UK market size	
	RPF regulator(s) records lessons from their work	Stakeholders gain better understanding of regulatory compliance	processes, business models) will be regulated	Lower regulatory barriers to trade (e.g. through global regulatory influence), with	
	RPF regulator(s) promotes their work and the benefits and lessons learnt	RPF regulator(s) work featured in the press / publications (positively)		increased overseas market size	
	RPF regulator(s) improves protections for	Consumers engage with comms / (later)	RPF regulator(s) improves consumer	IMPACTS	
	consumers	compliant services	confidence in regulation of business innovation (e.g. products, services,	Increased quality/quantity of	
	RPF regulator(s) provides clearer, more frequent comms for consumers about on compliant innovations		processes, business models)	business innovation (e.g. products, services, processes, business models) that benefits	
	RPF regulator(s) engages with other UK	Increased RPF regulators engagement		the economy, society and the environment	
	regulators	with other UK regulators	RPF regulator(s) influences other UK regulators to take a pro-innovation	NB the programme	
	RPF regulator(s) shares lessons about their work with other UK regulators	Other UK regulators apply lessons from RPF work	regulatory approach	outcomes are at an aggregate level for the	
	RPF regulator(s) engages with international administrations	RPF regulator(s) form partnerships with other UK regulators to tackle shared innovation challenges	RPF regulator(s) influences other administrations to align with its regulatory approach	£10m fund and not all projects were expected to achieve all	
	RPF regulator(s) shares lessons from their work with international administrations	Same for international administration		outputs/outcomes	

3 Applying to the RPF and preparatory activities

This chapter explores why regulators applied for RPF funding, their ongoing expectations and understandings of the Fund, and the preparatory activities that they undertook..

3.1 Regulators' understanding of the RPF

Evidence collected through this evaluation showed that regulators understood the purpose of the RPF to be about encouraging innovation, promoting cutting-edge regulatory practices and changing regulator approaches to new technologies. Regulators also commonly talked about the need for collaboration to meet the goals of RPF's mission.

"It's about engaging better with innovators and emerging technologies to ensure that they are in the best possible state of regulatory readiness to go through regulatory approval when that is appropriate, but also to ensure that our teams have the greatest state of readiness and awareness for when they are asked to look at something that's new." Funded regulator, interim stage (CAA)

"A catalyst to help innovation take place in the regulatory domain where that innovation might not otherwise take place. That innovation needed to focus on solving problems, not just for regulators, but solving problems for business." Funded regulator, final stage (SEPA)

"[At a] very high level we saw the purpose of the RPF funding as a whole to be about working to strengthen the British economy. And that is through enabling businesses to have the confidence to innovate with regulatory support." Funded regulator, final stage (ICO)

Regulators pointed to resources that BEIS provided, such as BRE Regulators' Innovation Network¹⁴ meetings, application guidance, invitation to bid documents and discussion with BEIS staff as key sources of information.

"It was very clear to me that it was all to support the industrial strategy. People at BEIS were really willing to talk about it and explain it very clearly to me." Funded regulator, final stage (CQC)

¹⁴ The Regulators' Innovation Network (RIN) was created by BEIS in 2018 to facilitate peer learning between regulators and sharing of best practice to support innovation and to foster better collaboration.

Corroborating this point, applicants participating in the online forum that Kantar ran in the scoping phase thought that the pre-competition briefings received from BEIS had been helpful and informative. They valued being informed at the briefing event that the application requirements for the Innovate UK system would be more relaxed than for commercial organisations (which is the system's usual users), recognising that regulators have less experience of writing funding applications. They also found the BEIS written guidance useful and emphasised that the guidance examples BEIS provided helped them to understand what projects could be approved.

3.2 Regulators' motivation for applying for funding

Regulators were usually driven to apply for funding by an existing interest in innovation and saw the RPF as an opportunity to acquire the resources necessary to better understand and address existing innovation challenges. Challenges included organisational issues like the complexity of a fragmented regulatory sector (for example for SEPA who regulate across multiple business and utility areas) and cultural issues like not being clear on what 'good' innovation looks like (CQC highlighted that it was not immediately clear what this meant in a regulatory context).

Some regulators already saw innovation as a key focus of their organisational strategic vision. For these regulators, the RPF offered an opportunity to accelerate work being done in a priority area. In cases where regulators would have sought to fund their projects independently had their application to the RPF been unsuccessful, the RPF enabled them to advance their innovation efforts more quickly, more effectively and with a broader scope.

"It was really lovely to have a grant that allows us to embark on a proof of concept project, which one could fail on." Funded regulator, interim stage (MHRA)

"We saw a really good opportunity to build on our direction of travel, do things that we don't necessarily have the resource to do." Funded regulator, interim stage (SRA)

For other regulators, such as MHRA, IPO and Ofcom, the RPF was about overcoming internal barriers to innovation, creating the opportunity to develop new processes and approaches, and to carry out work outside of their core regulatory mandate. As internal funding is normally limited to mandated work (e.g. discharging legal duties), these regulators said that they were motivated by the opportunity to secure funding to enable new work streams and explore potential technical solutions to problems in their sector.

For some, such as OGA, SEPA and ICO, the RPF was seen as a means to explore new ways of tackling shared issues through collaboration with other regulators and to overcome siloed ways of working. This could be seen as of particular importance due to changes (such as macro changes in technology and public policy) taking place in their sectors, creating new shared challenges and opportunities to collaborate. Many regulators, such as CAA, CQC and SRA, sought funding to develop a more proactive approach to regulation and keep up with the needs of their sector. These regulators believed that the RPF could allow them to improve their existing regulatory activity, while still maintaining regulatory standards and enhancing consumer protections. These regulators saw the RPF as a chance to test new regulatory approaches, via sandboxes or challenges, and therefore develop their capability to respond to the emergence of new technologies.

3.3 Experience of the RPF application

RPF applicants' experience of the application process was explored in the scoping phase of the evaluation.

RPF applicants largely considered the timeframe for the competition in 2018 to be too short, either in terms of the amount of advance notice given or the period for which the competition was open. Regulators saw this as limiting the resources that they were able to put towards the application and therefore hindering the potential for collaboration with others.

As it will be explored in Chapter 5, some regulators also experienced challenges at the application stage with understanding the design of the administrative requirements of the RPF. A few regulators, such as CQC and SRA, explained they were initially unsure about the extent of the Fund's administrative processes, such as Innovate UK's reporting requirements and associated systems, suggesting that it could be useful to set clearer upfront expectations around administrative requirements with RPF applicants in the future. The majority of applicants found that contact with staff responsible for administering the RPF, including those from BEIS, was timely and very helpful. They reflected on how useful it had been to ask questions about their bid and the competition criteria and to receive bespoke guidance from both BEIS and Innovate UK. However, some thought that the information or feedback received from BEIS lacked sufficient detail to be truly helpful, and one reported receiving conflicting information from different BEIS sources.

Applicants found the Innovate UK competition platform to be user-friendly with easyto-understand instructions, and the application form was also seen as mostly straightforward. However, a number of regulators said that a number of questions prompted similar responses (e.g. justifying the objectives of the project) making the process and their responses needlessly repetitive. Some applicants also raised issues with Innovate UK's Innovate Funding Service platform, saying it was 'clunky' and that applications were time-consuming to complete and submit.

Kantar received feedback from a small number of regulators that some elements of the application process, particularly in relation to the process of setting up partnerships or completing the finance section, were a little complicated and timeconsuming. Kantar judged that this was likely to be because staff at these regulators had had limited previous exposure to participation in funding competitions and therefore may not have allowed sufficient time to prepare and submit their responses, rather than any particular issues with the application process itself. RPF applicants reported that the time taken to find out about the outcome of their application was reasonable. While there was a wider mix of views around the length of time between being awarded the funding and being able to start projects, the majority of successful applicants said the period of time was about right. Applicants largely believed that the feedback received on their grant application was 'useful', which was particularly important for those projects that were not successful. This is likely to help promote future engagement with the RPF and increase the quality of any potential future bids should further rounds of funding take place.

3.4 Preparatory activities and research

Most regulators conducted preparatory research for their projects in order to understand the problems they were trying to tackle in their sector and to build an understanding of how they could address those problems.

Regulators carried out preparatory activities such as user research, workshops and consultations with internal and external stakeholders, and investigating similar innovation efforts in other sectors. Regulators found that doing so was valuable in helping them to understand stakeholders' problems and perspectives, confirm project scope and identify blockages to innovation. The preparatory research took different forms, with some conducting research as part of their RPF project while others used their own funding and conducted this research prior to receiving the RPF funding.

"Through our user research sessions, we have learned that there are fundamental problems, not just with the energy industry but other sectors that include a lack of transparency when publishing consultations, papers etc." Funded regulator, interim stage

For example, the FCA had carried out preparatory work on their project on digital regulatory reporting prior to receiving RPF funding. They found that their consultations with financial and technology companies and interactions with technology vendors greatly helped them to prepare for their RPF-funded project, by furthering their understanding of how technology could be used to solve the problem they had identified within the sector.

Other regulators, such as the CQC, also emphasised the importance of collaboration with the sector to fill in knowledge gaps. They explained that they learnt the importance of appointing a specific member of staff (such as a Policy Manager) to focus on collaboration in time to feed into the research stage and work directly with the researchers to shape the project.

"It's about pulling together the literature and then working with people in the sector and building a consensus rather than doing a hard evidence-based research exercise." Funded regulator, final stage (CQC)

Regulators who carried out preparatory activities emphasised that it was important to initiate this phase as early as possible and highlighted the value of planning and scoping work in helping to manage time and resources further down the line. There were instances where inadequate planning caused problems for projects. For example, the CAA reported that more detailed planning would have helped to inform their sandbox entry criteria, and as a result improved the progress made by innovators who were supported by the sandbox.

Despite evidence of preparatory work taking place, the scoping phase of the evaluation found limited evidence that regulators themselves engaged businesses within their sectors to gain input into the aims and design of projects. While regulators may have a strong understanding of the barriers and challenges to innovation facing those working in their sector, there is the potential that opportunities were missed by those regulators who were not connected to businesses or innovators. For any future rounds of the RPF it may be advisable for there to be a mechanism which brings businesses and regulators together or supports regulators in gaining the views of businesses on their project proposals at an earlier stage. Given that regulators highlighted the importance of planning as early as possible, this could be helpful.

3.5 Team and project set up

Prior to starting their project's core phases of work, regulators spent time on setting up their projects; recruiting the project team, creating work plans and establishing processes. These are notable because in a few cases they presented challenges and lessons for regulators, which will be explored in detail in Chapter 5.

Some regulators needed to recruit staff for their projects and found that there were challenges associated with this. Regulators who were looking for people with a specific skillset (e.g. for developing a technical solution) commonly cited this as a difficulty because they lacked access to the right skills within their organisation. Finding people with the right skillset could also be complicated by factors such as not having a contractual relationship with recruitment agencies that could connect them with relevant people and being bound by legislation that makes securing contractors more difficult.

"We don't have programmers in Ofcom - we have to go out and get them...getting the skill sets and resources under IR35 is a problem." Funded regulator, final stage (Ofcom)

Other notable challenges that impacted recruitment related to internal processes, such as completing security clearances, factoring in lead times to initiate and carry out formal recruitment processes for new recruits and managing unforeseen staff turnover within the project team.

In cases where regulators found recruitment challenging, this impacted projects in various ways. Recruitment issues sometimes delayed the progress of project, which gave regulators more work to do in terms of managing stakeholder expectations, as well as delaying dissemination of learnings. Ultimately, delays in projects could affect the speed of regulators' progress by utilising resources that could have been dedicated to core projects activities.

"Early engagement with government stakeholders on how they may support in holding stakeholders to account for the sandbox recommendations was really important." Funded regulator, final stage (CQC)

In addition to recruiting staff, regulators needed to establish various processes at the set-up stage of their projects. This work included drawing up work plan agreements (for example setting out milestones, deliverables, deadlines and terms and conditions), budget plans and communications plans. Regulators commonly said that establishing these processes took longer than they had thought, but they saw establishing these processes early on as an important step in order to identify risks and maximise the efficiency of later progress towards project goals.

Early engagement with internal and external partners (i.e. stakeholders involved in the delivery of the project) were important at the set-up stage in order to make sure that everyone knew their roles and responsibilities. Regulators who highlighted the importance of early engagement said that this was important for securing buy-in, and ultimately project success.

Regulators commonly emphasised the importance of creating a clear project plan and doing so as early as possible. For potential future rounds of RPF or similar funding schemes, BEIS could encourage regulators to focus on planning, and perhaps ask for a clear project plan as early as the application stage to facilitate a smooth start to the projects.

"[Lessons are] do some planning up front; get a good view of key stakeholders and keep them engaged; understand the reporting expectations from the outset." Funded regulator, final reflections

4 Impact of the RPF

This chapter assesses the impact of the RPF, based on an analysis of progress against the extended programme logic model (see Figure 3) and drawing on findings from the quarterly information management questionnaire, qualitative case studies and closing questionnaire with stakeholders.

Findings are structured around the outcomes identified in the logic model. Given that the data for this evaluation is drawn from within the period of the RPF, we have conducted an analysis of any contributory activities and outputs achieved against each outcome, as well as progress against the outcome measure itself, to help inform our understanding. Where possible, we have triangulated across multiple views and data sources, to validate findings from regulators.

Considering the broad nature of the overall RPF objectives, there is some overlap between the different activities and outcomes (for example, engaging with stakeholders supports the stimulation of new innovation development and also improves the perception of regulators in the eyes of business). As such, individual projects are featured in the analysis for multiple outcomes. Likewise, individual projects actively sought to achieve multiple outcomes, creating further overlap in the analysis of outcomes.

Separate write-ups of the case studies for individual projects can be found in the Product Descriptions & Case Studies Report.

4.1 Overall impact

Findings from this evaluation suggest that the RPF has been largely successful at enabling the projects it has funded to make progress towards the outcomes outlined in the programme logic model. This evidence needs to be qualified on the basis of the scope of this evaluation (see section 2.1.1), which was based on largely qualitative methods complemented by self-reported data and ran alongside programme delivery, which limits the certainty of findings. However, in the absence of a robust quantitative measure of outcomes, which would require a far more extensive programme of research carried out over a much longer timeframe, with various issues to consider around causality, the available evidence indicates the correct direction of travel towards the programme aims, with indications of progress against all outcomes and some intermediate outcomes already achieved.

Success is not distributed equally across all of the outcome measures. Evidence indicated that the programme has been particularly successful at stimulating and permitting the development of new business innovations amongst regulators, with a number of new products and processes developed directly as a result of the Fund currently in trials. This is likely to be in large part due to this outcome being achievable within the timeframe of this evaluation, as well as the large number of RPF projects explicitly aiming to achieve this outcome.

There was also clear evidence of the Fund driving engagement, collaboration and partnership working across regulators within the UK. Whilst a large amount of collaboration was between regulators involved with the RPF, there was also evidence of collaboration with a wider population of regulators. This activity, and the relationships that it has engendered, is likely to have a knock-on beneficial impact on the adoption of innovative practices amongst regulators. Likewise, a number of projects enabled engagement with foreign regulators, with the innovative processes developed as part of projects providing a potential platform for influence and regulatory alignment.

There was also some evidence that activities conducted as part of the Fund had helped to reduce the time or cost involved for stakeholders involved with projects to introduce business innovation into their markets, and somewhat improved their confidence in how business innovation will be regulated. It should be noted that these impacts would take longer than 18 months to manifest and that it was not within the scope of this evaluation to measure these impacts quantitatively or within the wider population of potential innovators.

There was less evidence that innovation supported by the programme would have a beneficial impact on consumers, although again this may in large part due to the downstream nature of this outcome in relation to the evaluation timeline. Regulators themselves said that their work would benefit consumers and it is worth nothing that the relative potential for the programme to drive long-term success against the different outcomes is not clear at this stage and would require systematic ongoing measurement.

Beyond the outcomes in the logic model, it is also worth highlighting a number of other areas in which evidence suggests that the RPF has been successful. Across the outcome measures, engagement and collaboration with other partieswas a common contributory activity, whether stakeholders or other regulators. The evidence gathered through this evaluation clearly demonstrates that the RPF has facilitated a deeper, more open and trusting dialogue between innovators and regulators, and between regulators and regulators about innovation and how to support it. This is likely to have lasting impacts as regulators continue to nurture and build on these relationships as well as share lessons about the delivery of innovative approaches.

4.2 Stimulating and permitting the development of new business innovation

Figure 4: Logic model subsection: Stimulating and permitting the development of new business innovations

ACTIVITIES	OUTPUTS	OUTCOMES	
RPF regulator(s) sets up and runs sandboxes and challenges	Innovators are interested in / apply to RPF regulators' initiatives – i.e. sandboxes and challenges (e.g. products, services, p		
RPF regulator(s) engages with businesses and innovators in their sectors	Innovators work on the development of	business models)	
RPF regulator(s) sets challenging outcomes	new technologies as a result of sandboxes, challenges or new information		
or release new information for innovators	Innovators trial new technologies		
	Innovators launch new technologies		

A total of twelve projects expected to stimulate or permit the development of new business innovation: eight by establishing sandbox or new licensing regimes and seven by setting challenging outcomes or releasing new information linked to new regulatory models or proof of concept studies (with some overlap between the two).

This evaluation detected strong positive indications of progress towards the outcome of stimulating and permitting development of new business innovation, such as products, services, processes and business models. No new products had been launched into markets within the 18-month timeframe of the RPF programme, and indeed this was not feasible within this timescale for some regulators, including the CAA and SRA because of development lead times for innovations. However, as a result of project activities, 15 new products, processes or services were trialled.

Regulators also engaged innovators to apply to take part in challenges and sandboxes, reaching many innovators for the first time, which in turn stimulated innovative activities amongst participating business stakeholders. The views of regulators on progress towards the outcome were supported by the majority of stakeholders in the closing survey.

Activities

At the end of the funding period (March / April 2020) challenges and sandboxes had been successfully delivered by all 12 projects. Regulators had also been active in releasing relevant new information or guidance to innovators and businesses in their sectors, with 18 pieces of formal guidance being shared over the course of the projects. These included information for innovators about how to progress the development of technologies and how to navigate the sector's regulatory framework, as well as instructions on how to use regulators' new models or access their portals. For example, the CAA published guidance on their website and on LinkedIn and the OGA collected GIS (Geographic Information Systems) data to provide a repository of energy integration information.

Alongside this, regulators conducted significant engagement activities as part of their projects, identifying, liaising with and involving businesses and innovators in their sector. Over the course of the projects, regulators reported that they had engaged with a total of 653 businesses and other relevant organisations in relation to their sandboxes and challenges, 374 of these for the first time. In most cases, most notably with the CQC and CAA, this engagement was positively received by stakeholders. With the CQC, for example, stakeholders said that their engagement activities were clearly aimed at gaining insight from industry, as opposed to making decisions in a "darkened room". For other regulators, such as the SRA, stakeholder comments made it clear that engagement was successful not only in helping to drive innovation and the trial of new products but also in improving perceptions of regulators as being open to and supportive of innovation.

Engagement with sector stakeholders was one of the first activities detected by interim evaluation activities and many regulators stressed the importance of early engagement with stakeholders and partners to ongoing success. Engagement was also viewed as an important intermediate activity in order to consolidate knowledge of stakeholders' needs and barriers to innovation, determine the scope of projects, and ultimately inform the development of solutions.

"We have engaged with over 50 organisations, from across the [...] sector. These include consumer bodies, specialist agencies [...], regulatory bodies, academics and government departments." Funded regulator, interim stage

"There are [solutions] we couldn't have imagined [...] and it's again emphasising the importance of having stakeholder involvement because there's no point in us doing all this and then someone at the end saying 'oh, it doesn't work for us." Funded regulator, interim stage (MHRA)

Regulators stated that the activities described above would not have been possible without the financial support provided by the Fund. Some also said that funding gave them the opportunity to explore approaches to innovation outside of their typical remit and to engage with stakeholders they would not normally reach.

"Without the funding, we would not have piloted sandboxing." Funded regulator, final stage (CQC)

"[Innovation] is within our regulatory remit, but [RPF] has acted as a catalyst. Ultimately, we've always been interested in putting resources into this area, but it's that focus." Funded regulator, interim stage (SRA)

Outputs and outcomes

While at the time of the evaluation no new products had been launched, sandboxes and challenges had led to the development of new products for trial. For example, the fourth wave of the quarterly information management questionnaire showed that that a total of two products had been trialled by Ofcom and five by SEPA. Similarly, two new processes were trialled by partners of the MHRA; looking into the creation of their own synthetic data and supporting their product development.

Other regulators expected solutions to result from upcoming trials or plans for project follow-up activities. One regulator reported that their successful proof of concept work had led to two of their industry partners conducting trials.

Beyond this, the sandboxes and challenges implemented by regulators generated considerable interest from innovators. Stakeholder views gathered through the closing questionnaire supported the view that progress was being made against this outcome. The vast majority of respondents said that over the past year regulators had improved in supporting or enabling innovation by businesses in their sector. A similar majority also agreed that their regulator had improved in supporting a culture of innovation in business. Likewise, a majority agreed that the support they received from regulators (including sandboxes) makes the development of new innovations more likely.

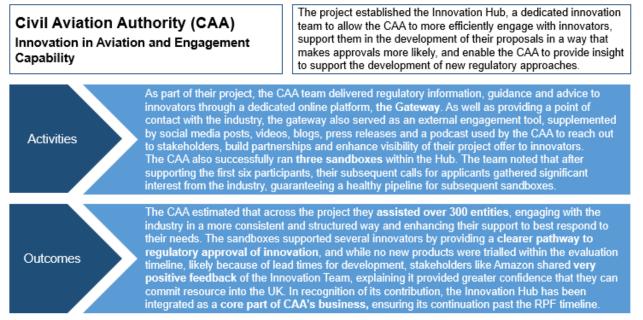
Sandboxes initiated as part of the Fund also led to some policy and internal changes, which may indirectly lead to the development of new business innovation. For example, findings from one regulator's project (CQC) led to policy and commissioning changes in other national bodies that will help accelerate the adoption of technology. Also, the SRA explained that their project had informed the development of their upcoming corporate strategy, raising a general awareness of the importance of innovation for the services they regulate and *"what we need to try and anticipate"* within the organisation.

"There is now a second objective which is all about developing innovation and technology... but a lot of that has come out of the challenge and what we learnt from the challenge on which direction we should go on." Funded regulator, final stage (SRA)

With regards to lasting impact, one of the sandboxes (CAA) initiated through the RPF had been made permanent within the regulator, with 13 shortlisted entities in pre-sandbox or 2020 pipeline stages. Other regulators have plans to continue to engage with and facilitate the innovations they had started as part of their projects. For example, the CAA has plans for future sandboxes and have briefed 60 industry bodies on upcoming work. Some regulators shared plans to release further information and lessons from their work and expected this to enable further positive engagement with their sector.

"We have changed people's thoughts and ideas and got them moving. For a regulatory innovation project, that's fantastic. So, the whole industry now is engaged and regardless of whether this platform is successful they want to resolve the problem and they want to resolve it in the next two years. Everyone's enthusiasm and drive to resolve the problem is kicking in and we're going to work hard to maintain that." Funded regulator, final stage (Ofcom)

Figure 5: Breakout case study (CCA)



"It's hard to understate it: they [CAA] are basically enabling the redefinition of our UK airspace at low-level and will help to establish commercial and social implementation of a whole new form of logistics, supply and transport. [...] We absolutely want further engagement [from the CAA] from March 2020." (Sandbox participant)

4.3 Reducing the time and cost of introducing new business innovation into markets

Figure 6: Logic model subsection: Reducing the time and cost of introducing new business innovation to market

ACTIVITIES	OUTPUTS	OUTCOMES	
RPF regulator(s) provides better, more immediate advice (to reduce time and cost of innovation)	Innovators access new advice / simplified processes	RPF regulator(s) reduces time or cost of introducing business innovation into markets (e.g. products, services,	
RPF regulator(s) simplify processes and/or	Innovators benefit from new regulatory advice / simplified processes	processes, business models)	
develop and adopt new technologies (to cut time / cost of innovation)	Innovators trial new technologies		
	Innovators launch new technologies		

12 out of the 14 projects expected their work to help reduce the time or cost of introducing new products and/or services into markets via the provision of better advice or the introduction of new processes or technologies by the regulator.

This evaluation detected positive indications of success against the outcome of reducing the time and cost of introducing new business innovation into markets. While it is not within the scope of this evaluation to measure actual time and cost reductions to the introduction of business innovation, regulators considered that they had achieved this outcome, and this view was supported by the majority of business stakeholders. Regulators were also able to provide evidence of success against the related activities and outputs.

Much of the success within this outcome was driven by activities relating to the provision of better advice. It is worth nothing that simplifying processes and/or developing new technologies was seen as more challenging. There was some evidence that proof of concept projects in particular, which were focused on new technology, were more challenging and received less well by stakeholders - though this may be because they take longer to carry out and therefore to show their value in practice.

Activities

Regulators across projects were active in engaging with stakeholders in their sector to provide better or more immediate advice aimed at reducing the cost of innovation. The ways in which they carried out this activity varied across projects, depending on what they set out to achieve, with a wide variety of projects, including information hubs (e.g. ICO, SEPA), the sharing of sandbox findings with the industry (e.g. Ofgem), research and information provision (e.g. CQC) and concept testing (e.g. Ofcom).

A smaller number of regulators engaged in activities to simplify processes to adopt new technologies, although this was typically still in progress at the time of the evaluation. Developing and applying new solutions was seen to take time for regulators as it required familiarisation with the applications of the innovation being examined/explored, the establishment of new internal protocols, and the trial of new technologies before implementation. For example, the IPO have developed a new AI-based technology, which is still in the trial phase but will enable stakeholders to more efficiently submit new patents. Given the challenges involved in development and delivery, such as technical delays related to introducing new IT systems, the project suffered from some delays, and therefore had been less well-received by some stakeholders at the time of our evidence-gathering.

Outputs and outcomes

Regulators were confident that they had achieved this outcome and across projects reported that 341 businesses and other relevant stakeholders (e.g. other regulators or public bodies) had contacted them to access newly released information. Furthermore, responses from the questionnaire showed that cumulatively 497 organisations said that the better advice provided through the RPF project led to reduced time or cost.

"Getting something that works and delivers a massively improved experience for our customers is incredible." Funded regulator, final stage (IPO)

Evidence from the closing questionnaire supported this view, showing that the majority of stakeholders interviewed agreed that the support they received from the regulator over the past year reduced the time and cost of developing innovation. A similar majority also agreed that the regulator improved in their provision of clear processes and helpful advice.

While there was no evidence of new innovations yet being introduced into markets during the 18-month duration of the RPF programme as a result of project activities, several regulators reported receiving positive responses from industry (via discussions or industry surveys). For example, the FCA noted that there were previously *"very minimal numbers of firms"* working on machine executable regulation and that *"the marketplace has seen a large influx of new firms"* as a result of their project. Regulators generally expected their projects to lead to further positive outcomes once technologies are applied or when products informed by their advice are launched.

"Our small number of industry partners are very excited about what we are doing." Funded regulator, final stage

"Some of the answers - including the number of products off the back of this work are hard to quantify. There are a number of companies working on software solutions off the back of the work we are building, and a new marketplace is beginning to arise." Funded regulator, final stage

Figure 7: Breakout case study (MHRA)

Medicines and Healthcare products Regulatory Agency (MHRA) Developing synthetic datasets for the validation of algorithms Availability of sample patient data is a key challenge in validating and developing medical innovations, as the need to protect privacy means that data cannot be freely or cheaply shared. The project explored the development of synthetic datasets of patient data, which could offer a secure and cost-effective alternative for innovators.

Activities	As part of their proof-of-concept on a first-of-its-kind synthetic dataset, MHRA conducted extensive background research into existing academic papers and innovators' needs from the dataset. MHRA engaged healthcare sector stakeholders whom they believed may be interested in their project and consulted industry partners and innovators about the structure a synthetic dataset would need to have to be useful in validating and licensing their products. MHRA's work involved sharing of data between organisations, in an analysis process leading to iterative generation and refinement of synthetic data and collaborative testing with innovators and academics.
Outcomes	MHRA successfully developed their synthetic datasets, and feedback from stakeholders revealed that their methodology had much broader commercial value and applications than anticipated. Trials of a small group of innovators invited to validate their algorithms against MHRA's synthetic data confirmed the viability of the datasets, which should contribute to a quicker validation process and development of medical innovations. MHRA's work has been academically accepted and represents a world-first approach in data science, which attracted wide international attention. Following the conclusion of the RPF, MHRA also released two synthetic datasets to support the development of medical technologies to fight COVID-19 and cardiovascular disease. These are available to innovators for the testing and trial products.

"[The project will pave the way for companies to be able to build far more impressive, reliable, robust models that can be given the stamp of approval, the MHRA approval, and that would blow open the gates for companies to push forward the capabilities of AI in healthcare. Without this project it couldn't happen, I don't think." (Project stakeholder)

4.4 Improving business or investor confidence in how business innovation will be regulated

Figure 8: Logic model subsection: Improving business or investor confidence in how business innovation will be regulated

ACTIVITIES	OUTPUTS	OUTCOMES
RPF regulator(s) engages with businesses and stakeholders in their sectors	Increased RPF regulators' engagement with business / stakeholders in the sector	RPF regulator(s) improves business or investor confidence in how business innovation (e.g. products, services,
RPF regulator(s) records lessons from their work	Stakeholders gain better understanding of regulatory compliance	processes, business models) will be regulated
RPF regulator(s) promotes their work and the benefits and lessons learnt	RPF regulator(s) work featured in the press / publications (positively)	

Nine out of the fourteen projects expected their work to improve business or investor confidence in how business innovation will be regulated, through engagement with the sector or relevant communications about the benefits and lessons learned from their projects.

Although changes in aggregate business and investor confidence are challenging to evidence within the 18-month timeline of the RPF programme project, the evaluation detected **some positive indications of success** against this outcome and its related outputs.

Most of the evidence against this outcome relates to engagement with businesses and stakeholders (both as activities and outputs) and ensuring positive media coverage for their work. Evidence from the final stakeholder survey suggests that engagement by regulators led to an increase in business and investor confidence for some stakeholders, although the evidence here is not as strong as for some of the other RPF outcomes on account of the timeline being too short for evidence to materialise against this outcome.

Activities

Activities for this outcome break into two types: i) engagement with stakeholders and ii) promoting their work and the lessons learned. All regulators demonstrated progress against these activities.

As shown in Section 4.1, regulators started engaging early with industry stakeholders and partners, quickly recognising the value of this for informing and progressing their projects. Engagement with the sector was not limited to innovators in most cases but involved a wider cross-section of businesses in the sector and other relevant organisations such as academia and public sector bodies. Engagement took different forms across the different projects; some conducted the engagement as part of the project process through sandboxes and challenges (e.g. the SRA engaged innovators through their challenge), whilst others conducted separate engagement activities and user research (e.g. SEPA, Ofcom, IPO and the ICO). For example, SEPA conducted user research, both at the beginning and end of the project, which they said was of critical value to them in helping them understand their stakeholders' problems.

Regulators were also very active in promoting their work at conferences and in relevant publications to help businesses and innovators understand what they were doing and feed in.

"At every opportunity we could we promoted the Challenge, and what the Challenge is trying to achieve. I think engagement, engagement, engagement is why we are where we are." Funded regulator, interim stage (SRA)

The OGA, for example, presented at a number of conferences across the UK promoting their project, raising their profile and the understanding of their work among key stakeholder groups. Similarly, the IPO presented at a number of conferences around the world.

In a similar vein, many regulators sought to engage the business and investor communities and improve visibility of regulatory work through other communications such as publishing findings from their projects in relevant publications and on their own reports and websites (for example the CQC and ICO). Some regulators involved internal communications teams to drive this promotion. The CAA, SEPA and SRA have engaged a tech PR agency to promote a forthcoming publication. The evaluation showed that across regulators there was a demonstrable commitment to wanting to make sure learnings are shared with maximum impact.

Promoting the work of RPF-funded projects was key not only to increasing understanding and awareness of regulators' particular efforts to support innovation, but also to underpinning the RPF's goal of promoting a pro-innovation image of regulation as a whole. For example, the ICO provided evidence that their project is gaining recognition in other sectors, with their project featured in the Law Society of Scotland's newsletter, which in turn helped to inform SRA communication efforts about Nesta Legal Challenges.

"I think a result of the work are those strong stakeholder relationships and it means that complex conversations about new technologies that apply to a range of sectors are going to be easier to have." Funded regulator, final stage (ICO)

This reflects broader evidence from across the regulators which showed the success of engagement in developing further engagement opportunities and improving regulatory awareness among stakeholders.

Outputs and outcomes

Almost all regulators sought to garner media publicity to promote their projects and were successful in their pursuit of this output, although some reported more coverage than others. Findings from the quarterly information management questionnaire run by Kantar show that a total of 121 articles regarding RPF-funded projects were published. Regulators often provided examples of articles and blog posts on their own websites and articles featured in trade press. There is some evidence of press coverage in national and international outlets such as the Telegraph, the Times, the Daily Mail and the New York Times. For example, SRA's Legal Access Challenge was featured in three articles in the Times, and the MHRA's work to develop a synthetic dataset methodology for product testing of medical devices, software and treatments that mimics real patient data while protecting patient confidentiality was featured in the New York Times.

As outlined in Section 4.1 and 4.2 above, regulators also engaged extensively with stakeholders in their sectors and provided information relating to improved regulatory processes. These engagement activities were helpful in relation to project specific activities, but there was also evidence that they supported the desired outcome of improved business confidence, with stakeholders saying they are listened to and feel improved confidence in the approach and work of regulators.

"Having someone at government who is truly interested in doing something to better a situation or to fill a gap in the regulation, it just feels good. It means that they are listening to what the industry has always been shouting about, i.e. help us out doing things better." RPF project stakeholder, interim stage

In the closing questionnaire with project stakeholders, around half of respondents stated that the support they had received from the regulator had improved business or investor confidence, which is less positive compared to most of the other outcomes measured. However, opinion was more likely to be neutral on this matter than negative. There were signs of positivity against other measures that might underpin future progress towards the outcome. For example, the majority agreed

that through their projects regulators had improved their understanding of the innovation needs of the sector, and a majority also believed that regulators became more innovative themselves. This suggests the correct direction of travel towards achievement of the outcome, but also that there is still some time to go before this translates into wider confidence in improvements in how business innovation is encouraged and regulated.

Figure 9: Breakout case study (CQC)

Care Quality Commission (CQC) Supporting Innovation in Health and Social Care CQC sought to increase their understanding of what 'good quality' innovation looks like in the health and social care sector, as well as trial new regulatory methods. For their project they composed a set of innovation principles to inform an update to their inspection procedures and ran three regulatory sandboxes.



"We've given confidence to the sector... if you look now at the use of the things we were looking at in the sandbox, it's increased massively." (CQC)

4.5 Improving consumer confidence

Figure 10: Logic model subsection: Improving consumer confidence

ACTIVITIES	OUTPUTS	OUTCOMES
RPF regulator(s) improves protections for consumers	Consumers engage with comms / (later) compliant services	RPF regulator(s) improves consumer confidence in regulation of business innovation (e.g. products, services,
RPF regulator(s) provides clearer, more frequent comms for consumers about on compliant innovations		processes, business models)

Four of the fourteen projects said they expected their work to improve consumer confidence in the regulation of business innovation.

Compared to other measures there is **limited evidence of progress** towards this outcome. It must be acknowledged that this is a challenging outcome to evidence within the scope of this evaluation given that both outputs and outcomes involving consumers are expected to occur in the longer-term, placing them outside the timeframe of this work. Furthermore, no research amongst consumers was conducted. Evidence from regulators themselves supported the view that they would

not expect to have achieved measurable progress towards this outcome within the duration of the programme or this evaluation.

However, there was some activity conducted related to this outcome, largely related to the media coverage detailed in Section 4.3 above. This reflects a broader view, highlighted by the FCA and CAA, that there is significant overlap between this outcome and the one related to business and investor confidence.

Activities

Whilst regulators had not produced communications directly aimed at consumers regarding their projects, a number had achieved positive media coverage of their projects in the mainstream press that will have been viewed by consumers (see Section 4.3). Beyond that, there was little evidence of consumer-facing communications due to the fact that innovations had not yet been launched in markets within the RPF's 18-month timeframe.

This evaluation has not produced direct evidence to suggest that there has been progress made in improving consumers' confidence in the innovation-friendly approaches to regulation. However, regulators did expect their projects to lead to this achievement eventually. For example, the FCA said that consumers could benefit through improved and quicker reporting allowing the regulator to spot harm and seek to reduce it more quickly. Likewise, Ofcom said that if their proof of concept leads to a solution, then consumers would benefit from a more seamless switching process and a reduction in nuisance calls and telephone fraud. This activity was therefore seen as a longer-term outcome in itself, and one that may not be measurable directly with consumers, who may not be aware of upstream improvements in protection.

Outputs and outcomes

Some of the media work conducted by regulators was reported to have been a success. For example, the FCA and CAA mentioned positive feedback from stakeholders regarding consumer engagement with communications. However, beyond that there was no direct evidence of consumer engagement with communications or of improved consumer confidence. For example, across the four waves of the management information questionnaire, stakeholders broadly said that it was too early to provide evidence of progress, and that this outcome could only be measured in the long-term once consumers have been exposed to the innovations being developed.

That said, regulators themselves had a positive perspective on the impact on consumers, based on increased media exposure:

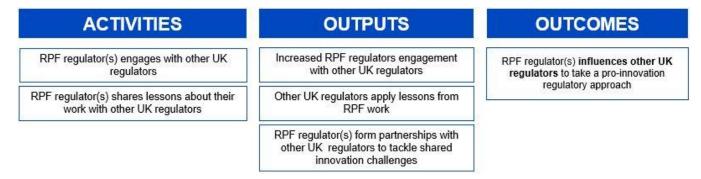
"There is limited, but certainly increasing consumer exposure/engagement to/with this emerging market. Current media coverage is focused on the possible [solutions] rather than an everyday reality impacting consumers, however the coverage should reassure consumers that [the regulator] has a handle on the issues." Funded regulator, final stage "As this project is not live, no evidence [of consumer confidence] can be provided. However, we have had very large amounts of engagement from firms we regulate, with a number of firms inputting resources to help develop this project and this gives us confidence that when implemented we can have a positive impact on consumer confidence." Funded regulator, final stage

The IPO also included a small number of consumers in their usability testing and received positive responses, although this was very small-scale (ten people).

Feedback from projects' external stakeholders was also positive. For example, around half of the stakeholders surveyed believed that the support they had received from the regulator would improve consumer confidence.

4.6 Influencing other UK regulators

Figure 11: Logic model subsection: Influencing other UK regulators



Seven of the fourteen projects said they expected their work to influence other UK regulators whom they had engaged with, to take a pro-innovation regulatory approach.

This evaluation detected some **positive indications of progress** against this outcome, as well as contributory evidence of achievement against its related outputs and activities, with extensive evidence of sharing learnings both within the RPF network and without. This was achieved via engagement activities and partnerships with other regulators, both formal and informal.

Activities

Across the course of the evaluation, management information provided by regulators indicates 380 instances of engagement between regulators. As for other outcomes, these engagement activities were often among the first activities to be carried out by regulators, with activities continuing consistently across the lifetime of the RPF.

"[The RPF project] has also enabled us to reach out to our UK, EU and international community of regulators, commercial partners and academics. We have used the opportunity to share knowledge, share lessons learned and collaborate to increase innovation." Funded regulator, final stage Engagement efforts were widespread across the regulators, with the CQC, ICO, OGA and CAA conducting the greatest number of engagements. Although it should be noted that this measure of frequency is self-reported and does not necessarily reflect the quality or impact of conversations conducted.

"Without the RPF I do wonder whether all this engagement would have taken place in the same depth. It's enormously valuable." Funded regulator, final stage (ICO)

There is evidence that some of this engagement was related to regulators sharing lessons about their work. For example, the CQC engaged with the ICO, Ofgem, FCA and CAA to develop their own approach to sandboxing.

Engagement activities were not limited only to the RPF network. For example, the CAA engaged with a number of regulators from outside of the network as part of their project, including the Foreign and Commonwealth Office, HM Revenue and Customs, UK Atomic Energy Authority, Food Standards Agency, Health and Safety Executive and Human Tissue Authority.

Outputs and outcomes

As well as increased engagement activities, regulators also reported forming a total of 39 partnerships during the evaluation, with the greatest number of partnerships formed by the ICO, SRA, CQC, MCA, OGA, and FCA projects. There is also clear evidence of the sharing of lessons through these partnerships. For example, the SRA entered into a formal partnership with the ICO to provide GDPR guidance to innovators in their challenge. In some cases, knowledge sharing amongst regulators has been on a more ongoing basis. For example, the external steering group for the CAA's work includes representation from the ICO, FCA and MHRA.

More generally, most regulators reported that the RPF had enabled them to build and strengthen their networks.

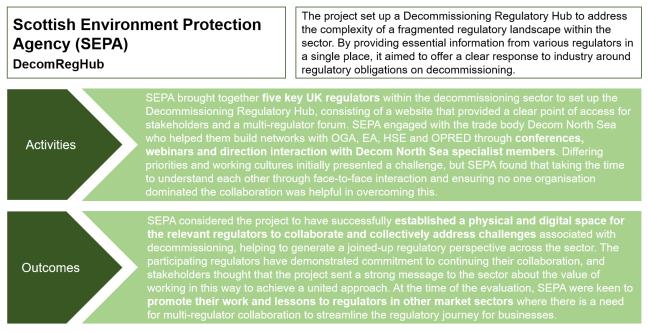
"We're trying to leverage as much as we can out of the relationships we're building." Funded regulator, interim stage (SRA)

There is also evidence of the application of lessons learned through work conducted as part of the RPF. For example, the FCA and the MHRA shared learnings around data simplification between their industries. What was more common was for regulators to apply lessons that they had learned through their own engagement activities. This was particularly acute for those regulators whose innovations related to public sector and regulator engagement, such as the ICO, OGA and SEPA.

"We've learned to be more flexible regarding the amount of paperwork required to formalise arrangements e.g. incorporating proposed actions in the MOU, creating individual workplans for different business areas, having named contacts for specific business areas to streamline engagements." Funded regulator, interim stage Beyond this evidence of specific lessons learned regarding innovative practices within the remit of projects, it is not possible for this evaluation to draw strong conclusions about the extent to which the Fund has successfully influenced other UK regulators, who were not part of the RPF, to take a more pro-innovation regulatory approach. This is partly due to the scope of this evaluation, which only collected data on participating regulators, and partially an issue of identifying causality in the research.

However, given the establishment of many new relationships that are likely to outlive the life of individual projects, and the sharing and application of lessons from regular-to-regulator engagement activities – including in forums such as the Regulators' Innovation Network – it seems reasonable to conclude that the activities of RPF regulators may influence and help to drive pro-innovation practices among a wider set of UK regulators.

Figure 12: Breakout case study (SEPA)



"It's been a huge step change to actually pull the regulators together and see that interaction... I think the key part is that if industry sees the regulators collaborating and listening to the needs of industry it sends a really strong message out to the industry that you need to engage and you need to look at the whole picture." (Stakeholder)

4.7 Influencing other administrations

Figure 13: Logic model subsection: Influencing other administrations

ACTIVITIES	OUTPUTS	OUTCOMES
RPF regulator(s) engages with international administrations	Increased RPF regulators engagement with international administrations	RPF regulator(s) influences other administrations to align with its regulatory approach
RPF regulator(s) shares lessons from their work with international administrations	International administrations apply lessons from RPF work	
	RPF regulator(s) form partnerships with international administrations to tackle shared innovation challenges	

Four out of the fourteen projects said they expected their work to influence other administrations, i.e. foreign counterparts, in relation to regulatory approaches and work they were developing or taking (SRA, FCA, CAA and MCA).

This evaluation detected **very early positive indications of success** against this outcome, as well as evidence of achievements against its related outputs and activities. As for the achievement of influence on other regulators, this was driven by engagement activities and the formation of partnerships with international administrations.

Activities

According to management information provided by regulators, there were a total of 96 cases of engagement with international administrations and regulators across the RPF-funded projects during the RPF programme. For example, the IPO engaged with international regulators with relevance to their project, including the World IP Organisation, and Ofcom engaged with their Cypriot counterpart.

Engagement was often achieved via participation in conferences or through engagement via publications. For example, the SRA presented at the International Conference of Legal Regulators (ICLR) event in Edinburgh (2020), during which the Legal Access Challenge was raised, using the conference as an opportunity for engagement.

Other times engagement has proceeded through more formal roles or partnerships. For example, the CAA engaged with international stakeholders, including the European Union Aviation Safety Agency (EASA), and took the lead at the European level on urban air mobility by chairing the sub-working group on safety standards for new urban aircraft. Other engagement activities conducted by the CAA, included work with counterpart administrative bodies in China, Canada and New Zealand. Engagement offered the opportunity to share lessons with international stakeholders, whilst at the same time having lessons to share could facilitate engagement. For example, the ICO noted that international regulators in Singapore, Bermuda and Jersey had got in touch to discuss their model to draw learnings for their own work, offering an opportunity to showcase the pro-innovation nature of UK regulation and influence regulatory bodies outside the UK.

"They have been very appreciative of us taking the time to talk to them about the whole model and how effective it is at slotting into other regulators' pieces of work. Particularly they are interested in how data protection can support work that's happening in fintech." Funded regulator, final stage (ICO)

The opportunity to share lessons could also come about as a result of publications or media coverage. For example, the FCA Digital Regulatory Reporting project generated interest with articles published in Asia and the US on their RPF work, leading to an opportunity to promote its learnings with the Global Financial Innovation Network, which was seen as important in supporting an international regulatory effort.

"We want to digitalise globally. It doesn't make any sense if it's just in the UK." Funded regulator, interim stage (FCA Digital Regulatory Reporting)

While engagements and discussions with international regulators were largely at an early stage, they provide a positive indication of contribution to the RPF goal of fostering a pro-innovation image for the UK internationally.

Outputs and outcomes

This evaluation has produced some evidence that the engagement activities and knowledge-sharing enabled by the Fund has provided useful lessons for some international organisations. For example, on the back of the FCA's work, a number of Asian regulators (e.g. Hong Kong Monetary Authority, Monetary Authority of Singapore, and counterparts in Japan and South Korea) have signalled that they are keen to test what they learned from the FCA. Likewise, the CQC's project has generated international interest, with three international regulators (in Singapore, Germany and the US) expressing interest in CQC's findings from two of their sandboxes. In addition, in Singapore the Better Regulation Executive showcased the work that the SRA is doing to foster innovation in legal services. In response the Singapore authorities expressed strong interest and the potential for crossover from the thriving British law-tech scene into the Singaporean market.

Going beyond the sharing of lessons and engagement, all regulators pursuing this outcome sought partnerships with international regulators. These could take the form of an informal arrangement (based around advice and discussions without the need for a formal structure being put in place), such as that adopted by the ICO in speaking with the Jersey government. Alternatively, these partnerships could be more formal, such as SEPA accepting regulatory delegations from Egypt and Brazil and the CAA looking into the opportunity for a member of New Zealand's CAA innovation service to work with them on secondment. Beyond impacts on the individual projects, these partnerships are helping to form relationships that may

have ongoing impacts for international collaboration or influence other countries to align their regulatory approach.

Despite clear progress in successful engagement with international regulators and international interest in lessons from RPF-funded regulators, there is not yet enough evidence to suggest wholesale influence from UK regulators to promote innovative regulation and regulatory alignment. Such influence and effects are likely to take longer to materialise and may not be easily or directly discernible. The only regulator which explicitly mentioned influencing other regulators was the FCA. However, given extensive engagement carried out by UK regulators in the course of their regulatory work including in relation to their growing innovation work, it is reasonable to assume that further progress against this outcome will occur in future.

Figure 14: Breakout case study (FCA Digital Regulatory Reporting)

Financial Conduct Authority (FCA) Digitally Regulatory Reporting (DRR) The project constituted phase 2 of FCA's wider programme of work on making regulatory reporting digital for financial firms, expected leading to a significant reduction in the time and costs associated with data collection for business as well as the regulators, and improved accuracy of regulatory reporting.



"The FCA and the Bank of England leading this project has had so many positive effects. It's galvanised the rest of the world to start looking at having that conversation. It allowed the firms to work together, to give a good example of collaborative work." (Stakeholder)

5 Lessons learnt

This chapter focuses on the process learnings from the research, drawing primarily on the qualitative case studies and final workshops with regulators to highlight challenges and lessons from projects that may contribute to Government's understanding of innovation-enabling regulation..

Findings are structured around three categories. The first two, relating to operational and cultural lessons, highlight key learnings from regulators that may help to support future innovation work but do not fall within the scope of the programme logic model. The final category relates specifically to aspects of the RPF design and is intended specifically to help develop any future iterations of the Fund.

5.1 Operational: managing an innovation-enabling project

Operational lessons refer to general learnings about working practices developed as part of regulators' innovation-enabling projects, relating to areas such as management processes or organisational structures. These learnings have broad applicability to the manner in which regulators might successfully approach innovation, including but not limited to the outputs and outcomes contained within the programme logic model. We have identified these cross-cutting learnings here to help identify good practice that might be useful to regulators or inform guidance aimed at supporting future work in this area.

5.1.1 Team resourcing and setting up internal governance

Timely resourcing of the project team was often a challenge for regulators. Following receipt of funding, finding staff with the required skills fast enough to meet delivery milestones could be challenging as recruitment or securing resources from other teams within the organisation took some time. Some regulators found that completing recruitment administrative procedures (e.g. writing job descriptions, acquiring security clearances) was slower than anticipated, particularly when sourcing external capacity (e.g. project managers).

"[It is] important to have the right people in the right role, which can be tricky because it can take a long time." Funded regulator, final reflections

"Being regulators, we have to go through a long recruitment process, and then there were the lead times for getting people to start as well." Funded regulator, final stage (CQC) Although regulators said that the Fund could allow for more time dedicated to team and project set up (see section 3), they also acknowledged that they had learned operational lessons from involvement in the Fund. For example, some highlighted a newfound understanding of the importance of establishing clear role requirements, in order to make the search for required team members as efficient as possible.

Related to challenges with recruitment, a number of regulators recognised the importance of putting in place a diverse team, incorporating different backgrounds and experience, and recruited from different areas in the organisation to support their interdisciplinary work.

"I think having a wider awareness, not just looking from the point of view of the regulator, but also having an understanding of how [advice] might impact regulators and businesses from their perspective is really quite valuable." Funded regulator, final stage (ICO)

"Having that multidisciplinary team was really important, not just for delivering it with our different expertise, but also if we needed to answer a question." Funded regulator, final stage (CQC)

Regulators who were able to make their RPF project team permanent within their organisation noted the value of having a team wholly dedicated to their innovation work, as this was instrumental to building and maintaining relationships with innovators and other stakeholders and guaranteeing the continuity of innovation-supporting activities.

"[Having a dedicated team thanks to funding] gives you a stamp of importance behind the project, it gives the project momentum, its mandate and a means of protecting it." Funded regulator, final stage (ICO)

One key internal governance challenge across projects was the timely establishment of internal processes and practices (e.g. communication protocols and internal procedures), particularly when team members came from different parts of the organisation.

"One of challenges was that we were not a team who had worked together before, so in addition to cracking on and think about how we were going to achieve the objectives of the project, we had to start putting processes in place." Funded regulator, final stage (ICO) However, regulators noted that getting clear management processes in place (e.g. communication methods, responsibilities and accountabilities, escalation and troubleshooting practices), although time consuming, was important to foster both the smooth running of project activities and effective coordination with delivery partners where applicable.

"I think the lesson learnt is being clear around responsibilities and accountabilities." Funded regulator, interim stage (SRA)

5.1.2 Project management capacity and approach

Regulators reported that managing the administrative processes for their projects, alongside other responsibilities and project activities, was more challenging than expected and out of line with other workstreams within their organisation. Some said that they had learned the importance of having a clear project and project team structure in place at the beginning of the project. One regulator benefited greatly from having a dedicated project manager (PM) role in their team, reducing the administrative burden from those tasked with technical delivery, and stated that dedicated project management funding should be an essential component of similar work in future.

"I think what I've learned is that it is so, so, important to have someone who can coordinate the project and be a project manager because otherwise, if all our time went on that project management and bureaucracy, we wouldn't have time to do this stuff." Funded regulator, interim stage (MHRA)

Others explained that through their experience of the RPF, they had learned how to better manage monitoring and information reporting requirements for a funded project. They did so by developing standard reporting forms and maintaining a repository of updated information about their project aims and progress, enabling them to quickly respond to requests for evidence or project specific data. They also recommended that projects start planning their project management activities at an early stage and develop a clear plan so that challenges can be pre-empted.

Initial project planning and scoping work was also noted as beneficial activities by some regulators as a way to help effectively manage time and resources. For example, one regulator explained that in the future they will think about resource allocation in advance of beginning delivery work to ensure that they are ready to immediately start working on key project activities if awarded funding.

"[One of our lessons is] get a good understanding of engagement requirements, reporting requirements etc. at the outset, [and establish] good project management practices." Funded regulator, final reflections

"Be clear on what the next steps are after the funding runs out, and how you are going to capitalise on all the funded work. Think about that right from the beginning." Funded regulator, final reflections

Many regulators (e.g. FCA DRR, CAA) said that they had learned to adopt an agile, iterative approach to their innovation work, setting regular checkpoints to take stock of their achievements and learnings before moving on the next phase of work, particularly in the context of novel innovation work. The CAA found that experimenting with new ways of working and being prepared to pivot to different approaches had allowed their team to rapidly develop, build their profile and learn how to engage with and support stakeholders. This was seen by the CAA as atypical of regulatory culture.

"[Another lesson is] working in an agile way, be prepared to try things that may fail but help us to learn." Funded regulator, final reflections

5.1.3 Understanding sectoral challenges and innovation applications

Many of the regulators interviewed said that a key benefit of the Fund involved furthering their understanding of stakeholder needs and boosting their confidence in their ability to understand the potential of innovations (explored as part of their projects) to benefit their sector and, in a few instances, other sectors too.

Through the Fund, regulators were able to refine their understanding of the barriers to entry for innovation in their sector. This could involve a reframing of the kind of issues that they believed stakeholders in their sector were facing. For example, a couple of regulators were able to identify that a key barrier to innovation in their sector was that innovators struggle to navigate the regulatory landscape, rather than regulation itself. This reframing allowed regulators to reconsider how to effectively provide businesses the correct information and support understanding to advance the entry of innovation.

"Some of the innovators we've worked with are fantastic software engineers. Sometimes they perceive it's going to be really easy to get through the regulatory pathway [but] there are processes they need to go through to prove to us... they can be quite bullish." Funded regulator, final reflections

"[We gained] stronger stakeholder relationships; staff development; greater insight into the sectors and their concerns." Funded regulator, final stage

"The [RPF project] has helped tremendously in just increasing [our] organisational knowledge and awareness of issues and things that need to be addressed." Funded regulator, final stage (SRA) A few regulators also said that their projects had allowed them to build their expertise at understanding new technologies and the ways in which innovation can be applied to regulation, by exploring what has been done in other sectors and consolidating existing knowledge. For example, a number of regulators (e.g. FCA, SRA) gathered lessons on the types of technology best suited to address a particular regulatory challenge they were trying to tackle, which they said would impact positively on future work.

"Without necessarily becoming a technical expert, learning about the technology and the vocabulary used by innovators is important. Being prepared to both learn and to listen [during engagement with innovators] – in order to understand what the issues are and what role the regulator can play – gains credibility." Funded regulator, final stage

5.1.4 Approaching innovative technologies and models

Some of the operational lessons regulators drew from the programme related specifically to the ways in which they approach the use or development of new technologies or models to enable innovation in their sectors. For example, the IPO, whose project involved developing AI-supported tools to assist applicants and examiners with trademark applications, explained that they had learnt to consider their project in a broad sense through their internal management process. This process helped them to avoid the pitfall of zooming in on the technology too soon and losing sight of the need to engage stakeholders or focus on other business operations that were also critical for a successful delivery.

A number of regulators mentioned how they had refined their understanding of how to approach the process of undertaking innovation work. MHRA said that they have learned a number of lessons about setting up projects of this nature to allow them to better balance the timelines of future projects. For example, lessons about the time required to ensure memoranda of understanding, non-disclosure agreements and other legal agreements are in place. MHRA also said that they had developed technical skills about working with data (such as working with synthetically produced data) that will support future innovation projects to set up more smoothly. Other regulators (e.g. SRA, ICO) also highlighted the necessity of being flexible or adapting their terms and conditions in order not to scare away stakeholders from wanting to take part in their projects.

The SRA also explained that it had learned about the need to adapt intellectual property clauses (specifically within Innovate UK contracts) related to the rights to new technology services being developed/trialled when working with innovators. The project team explained that tech developers were concerned about losing the rights to their innovations by taking part in their project, which was organised as a challenge/competition. By amending these clauses, they were able to reassure innovators and stimulate participation.

5.2 Cultural: fostering collaboration and knowledge sharing

Cultural lessons refer to learnings that regulators gathered from engagement with external stakeholders and colleagues within their own organisations. Although the learnings here do not fall within the remit of the programme logic model, they are relevant for understanding how participating regulators may approach innovation in future. They also help to highlight best practice on cross-sector collaboration for regulators.

5.2.1 Value of building links and networks to tackle shared challenges

As explained earlier, all RPF-funded regulators connected and collaborated with a range of different organisations such as businesses, innovation and tech agencies, consumers, academia and other regulators, both nationally and internationally.

There was a consensus among regulators interviewed that stakeholder engagement and, where relevant, cross-sector collaboration were highly beneficial to shaping their work and achievements. Regulators said that collaboration was valuable to inspire projects' vision, understand stakeholder needs, and help identify and tackle shared issues such as how to approach user testing and information security. Regulators also shared lessons from their projects to learn from each other about how to manage projects both internally and externally.

Some also highlighted the importance of being open and receptive to industry and innovators in order to convey the message that the regulator is open to supporting innovation and breaking down the perceived barriers associated with regulation.

Many noted the value of starting industry engagement early (e.g. user research, industry involvement and feedback) and some reflected that they wished they had prioritised that in hindsight. Those who worked with of delivery partners noted the relevance of the support they got strategically and operationally.

"It is important to involve users [...] people who use services or their representatives in all work relating to innovation. It is really beneficial to engage with stakeholders about new technologies/innovations at an early stage, so that we can shape our approach in a timely way." Funded regulator, final stage

Many regulators also engaged with other regulators in different sectors and noted the value of extending their reach and collaborating in this way, forming crosssectoral partnerships to tackle shared issues. Some highlighted the value of transferrable lessons and of learning from others to avoid duplication. Regulators noted that there are many areas where technology is crossing sectors (e.g. machine learning and automation), making such regulator-to-regulator engagement mutually beneficial and necessary. *"By working with other regulators, we are able to have much greater impact across sectors."* Funded regulator, final stage

"[Cross-sector collaboration] has multiple benefits. Us speaking together actually benefits us in terms of increasing our knowledge, it benefits the party involved, so the innovator, and it also helps [regulators] to actually understand the issue from another angle." Funded regulator, final stage (SRA)

"It makes a huge difference when two regulators cooperate. I am a great fan of cross regulatory engagement. I think the more cross regulatory projects we do the better for everyone." RPF project stakeholder, final stage

A number of regulators specifically referenced the RPF Projects' Leads Group, which was established by the CQC as part of their project and met every quarter to discuss and resolve common project management issues and flag programme delivery concerns to BEIS during the life cycle of the RPF projects. Some regulators suggested that, given the proven benefit of this group, BEIS should encourage the creation of such group, either led by projects or by BEIS, in potential next rounds of the RPF.

Separate to this, BEIS has created and continues to deliver the Regulators' Innovation Network (RIN), which brings together over 30 regulators with a strong interest in innovation. Initially formed with those regulators who applied for RPF funding, the aim of the RIN is to mainstream proven regulatory approaches to support innovation and foster better collaboration between regulators. The quarterly network meetings regularly feature presentations by regulators to share their lessons learnt through RPF projects. RIN was seen as an important hub for forming relationships and some regulators expressed a hope that RIN would continue to exist and encourage cross-sectoral working and knowledge sharing following the end of the RPF programme.

Collaboration also operated in a positive feedback loop, with early networking opportunities and conversations helping to identify further potential partners or collaborations.

"We've been learning loads from the Network [Regulators' Innovation Network]. We started a conversation [other regulators] about sandboxes and addressing similar issues across sectors." Funded regulator, interim stage (SRA)

5.2.2 Best practices in establishing and managing collaborations

A few regulators (including SEPA and the CQC) highlighted that they found the process of initiating collaboration with external stakeholders to sometimes be challenging. They noted that it could be difficult to gain the attention of external stakeholders, particularly when in different sectors their priorities did not align or engagement was overshadowed by more pressing concerns or activities.

However, in cases where regulators did overcome this challenge, they said that it had allowed them to identify best practice approaches to establishing collaboration, some of which involved a significant shift from usual engagement methods. A key part of this shift, involved a more personal and informal approach to establishing collaboration, engaging key people via meetings and workshops.

"Making sure you are present at events and meetings where innovators gather is one key learning. Also, going outside your organisational comfort zone to contact individuals and organisations that you would not normally engage with." Funded regulator, final stage

"Going to see [stakeholders] where they are, not expecting them to come to you." Funded regulator, final stage (SRA)

"Regular communications and workshops. Seek opportunities to present and disseminate our projects aims and objectives to industry and regulators." Funded regulator, final stage

"Workshops [are] often more effective than discussion papers." Funded regulator, final stage

"I think [communication] was much more informal and more personal. You could see the benefits, when we got them together for the workshops, in having built those relationships beforehand." Funded regulator, final stage (CQC)

Some regulators also noted a new understanding of the importance of timing when trying to initiate collaboration with other organisations. This included the value of establishing informal connections early and maintaining regular contact so that stakeholders have regulators in mind when they are ready for formal collaboration or when regulators need deeper discussions.

"If you're there too early people can't even see what issue they could possibly have, they're not ready to talk to you, they haven't thought that far, they haven't put their mind to it. Obviously if you arrive too late, then it can be very disruptive. It's about being there at the right point when people are ready to talk to you and ready to take things forward." Funded regulator, final stage (ICO) Alongside this, some regulators mentioned the importance of maintaining relationships with stakeholders. This required clear and direct communication about expectations, responsibilities, and project milestones, especially when dealing with partners from different organisations with diverse organisational cultures or skillsets. Straightforward and consistent messaging could also be important to establish trust in the parties involved.

"When it comes to enabling innovation, it's very important that we set expectations on what we can offer and what the limitations are of the advice that we can give." Funded regulator, final stage (ICO)

"Clarity and consistency from the regulator is extremely important. Being clear that innovation is good, we care about it, it's part of good leadership. Being able to consistently apply that so the organisations that we regulate trust [us]." Funded regulator, final stage (CQC)

"Silence is the killer [...] People [businesses] are very happy or very comfortable that we might say that we don't know the answer yet, but we'll tell you what our thinking is and the process we're going to go through to try and come up with a better answer for you. And that gives people a lot of confidence." Funded regulator, final stage (CAA)

"I think what we've learned is that it's really important for the regulator not just to [be] convening groups to solve problems, [that] we actually have to actively participate." Funded regulator, interim stage (FCA Digital Regulatory Reporting)

Finally, a number of regulators talked about the importance of proactive engagement, with active participation in conversations and an interest in understanding stakeholders' perspectives. This included displaying openness to different perspectives to help secure buy-in, acknowledging uncertainty and communicating a willingness to find answers together through a collaborative dialogue, in the spirit of learning together.

5.2.3 Fostering internal commitment and collaboration

Regulators said that promoting their project's mission and benefits within their organisation to gain internal buy-in and senior endorsement was equally important to success as external engagement.

Most regulators stressed the importance of fostering wide engagement for their project within their organisation. This was best achieved through team meetings, presentations, and internal publications or newsletters. This was beneficial for fostering enthusiasm for projects, raising awareness of their value and creating opportunities for interaction with different internal teams to incorporate relevant knowledge and skills.

However, garnering organisational buy-in could be challenging due to conflicting responsibilities, lack of understanding of the project and the challenge posed by new types of projects to established ways of working. As such, securing senior buy-in and support early was seen as a key activity by regulators to guarantee team and project continuity. It was achieved through regular sessions and engagement with senior leadership teams within the organisation to demonstrate the value of projects.

"[A key enabler is] to have a supportive senior responsible executive who can smooth the way for you internally." Funded regulator, final reflections

5.3 Fund design and administration: suggested improvements to the RPF

This section refers to learnings about specific elements of the way in which the Fund was delivered or experienced by regulators during 2018-20, which could be drawn on to better support future iterations of the Fund. While regulators generally were very positive about the value of the RPF and expressed satisfaction with the support provided by BEIS, they identified a few areas that could be improved for future funding rounds – or similar initiatives.

5.3.1 Upfront clarity on administrative requirements and governance

Several regulators explained they said they would have benefited from clearer upfront directions regarding the anticipated project management commitment (e.g. fund phasing, timings and resource needed to comply with monitoring and auditing procedures). This would have helped them better prepare for the administrative and reporting requirements of the fund.

Although the Kantar team understands that the relevant information was available online, some regulators said that receiving guidance about governance requirements and project set up expectations earlier on in the process would have been helpful. This would have helped regulators to better plan or prepare for their work and therefore avoid challenges such as issues with auditing resulting in a delay in funding.

"We found out we were successful with our proposal, but it was all a bit unclear as to some of the hurdles we had to jump through to then formally kick off the project." Funded regulator, final stage (IPO)

"You almost need a manual, somewhere that explained 'now you've got the funding, these are our expectations in terms of what our governance requirements are, and that wasn't really there." Funded regulator, interim stage (SRA)

5.3.2 Longer application window and set up process

Related to the above, a few regulators found the timescales between the awarding of RPF funding and the expected commencement of RPF project activities to be tight, making it challenging for them to get organised in time to start work according to the programme's delivery and spending timetable.

They considered that greater clarity about the timeline for grant funding or additional 'buffer' time at the start of project timelines would have enabled them to set up the internal practices, procedures and team logistics required. Some also said that additional time could have been used to acquire a knowledge base or generally upskill themselves (when it comes to innovation and technology). Regulators did not specify for how long they would have wanted to extend such a set-up stage.

5.3.3 Flexibility with respect to the grant and spending profile

Some regulators perceived their spending requirements and windows to be unduly rigid, in contrast to the innovative nature of projects and agile project management styles employed, which were based on experimentation, the quick identification of failure and the willingness to change course. In particular, funding was weighed towards the start of projects and some regulators said that this is when they would have most appreciated flexibility given the need for preparatory activity and consequent inability to allocate funds early on. The split of grant funding between financial years was found to be not ideal by a number of regulators, some suggested that it should be more clearly agreed with regulators at the outset.

"Flexibility around the BEIS funding spend criteria would help. Much more regular contact would help with BEIS and Innovate UK." Funded regulator, final stage

Some regulators said that the split of funds between the two financial years did not reflect their project work/milestones and found reallocating budget difficult. The result of this was that they said additional pressure to spend at the beginning of timelines. They would have appreciated more flexibility and a dialogue on how to spend budgets across financial years and an easier process for reallocating funding if necessary.

"If you have a certain period and if you say, 'spend this in year one and this in year two', this should also [match] the actual physical time that you have." Funded regulator, interim stage (OGA)

"There was an administrative challenge on matching spend to financial years." Funded regulator, final reflections

"We had to run at 1000mph just to get everyone up and running by April [2009]." Funded regulator, interim stage (CAA)

Some did not consider Innovate UK's reimbursement process and the financial requirements to be appropriate for regulators' set up but rather for businesses, which they assumed were the audience Innovate UK is used to dealing with.

"The grant award and reimbursement process could be better reflected to address regulators' setups (treatment of VAT, need for audits etc.)." Funded regulator, final stage

5.3.4 Monitoring and reporting flexibility

Many regulators explained that they would have found a more flexible reporting beneficial, to reduce burden on their teams and allow them to focus more on project activities. Given initial confusion for many about audit processes and requirements from Innovate UK, some regulators said that the Innovate UK monitoring framework was too rigid. It was not appropriate to reflect project milestones for projects that are adopting agile project management approaches which use iterative work cycles (sprints) to define the project deliverables.

"The grant award and reimbursement process could be better reflected to address regulators' set-ups (treatment of VAT, need for audits etc.)." Funded regulator, final stage

"Project documentation required by Innovate UK was onerous, time-consuming, and very hard to get your head round at the start." Funded regulator, final reflections

Some also mentioned easier access to the Innovate UK administrative 'Connect' portal would have been preferable, as it took them significant time to gain access to the portal. Furthermore, some regulators said that details requested on the portal were different to those asked for at the application stage, which created some information gaps and confusion.

Some regulators said that the requirement for an additional external financial audit (in addition to Innovate UK monitoring and Kantar's evaluation) could have been avoided to save resources, given that regulators are public bodies and already subject to independent financial auditing and public finance rules. They suggested that this not be a requirement for future funding rounds.

In addition, many regulators felt that between the monitoring carried out by Innovate UK and independent evaluation carried out by Kantar, the demand for progress reporting was too frequent and onerous. Some also said that it was not sufficiently coordinated, leading to a duplication of information being provided.

In relation to the Kantar evaluation exercise, a few regulators thought that the information management questionnaire questions could have been better targeted to reflect their specific project aims and achievements. For example, Ofcom considered the metrics to make assumptions about commercialisation, and therefore not adequately take into account how they work as an organisation and the scope of their project.

"[The Kantar evaluation] assumed value would be delivered throughout rather than at the end or even after. We didn't have incremental value being delivered throughout the work. In terms of the criteria, a lot of it [value/impact] came at the end [of the project] and a lot will come beyond [after] that, and that was completely missed. What really should have been done is evaluate after a year as it gets more uptake. That quarterly expectation didn't align at all to our project." Funded regulator, final reflections

5.3.5 Supportive communications

It was the CQC that created the Projects' Leads Group and formally put different regulators involved in the Fund in touch. This had positive effects on collaboration and knowledge-sharing and as such was highly valued by participating regulators. Given that cross-regulator collaboration is a focus of the RPF, some said that this could be facilitated in future as part of the Fund design.

Regulators also made suggestions for potential improvements to communications. Some of this involved communication with participating projects or between projects managers and BEIS. For example, SRA explained that a detailed briefing once the funding winners had been announced would have been helpful, and that they would have welcomed consistent advice on requirements from RPF-funded recipients.

Ofcom stated that communication with BEIS could have been organised more effectively. They highlighted that their contact with BEIS officials was helpful, but that they would have wanted easier access to someone who could empower them to address issues, for example in discussions about the grant funding structure. They suggested having a straight line of communication with the RPF programme board, so that they could ask questions in written format and receive a written response. They also said they would like more communication about future editions of RPF and suggested giving people a quarter's notice so regulators can prepare by running internal innovation competitions. In a similar vein, Ofgem suggested that a system for rapid escalation and resolution of issues could be helpful.

OGA mentioned that BRE had suggested that they could support them by handling liaison with the BEIS press office. This did not eventually happen, meaning that the OGA had to go directly to the press office. For OGA this said like an acceptable result as they already had good working links with the BEIS press office, but they noted that other projects may not have links like this.

Other regulators made suggestions about how wider communication about the Fund could have helped with stakeholder engagement. For example, the ICO suggested that better promotion of the Fund at the start of projects, alongside assistance with external communications to promote work, could have further increased the value of the RPF by raising awareness amongst both internal and external stakeholders

(other regulators). This could include the provision of clearer communication materials to applicants to allow them to brief internal stakeholders on the Fund's scope, making it easier to pitch potential projects to senior staff to authorise bids.

5.3.6 Supporting the continuity of innovative projects

While there was a strong consensus among RPF regulators that participation in the RPF had enabled them to conduct innovative work, some were concerned about how to continue this work following the end of RPF funding. For example, MHRA were confident in the success of their project but were unsure about how to fund the next phase. MHRA were seeking to explore how to advance the use of synthetic datasets in regulation and wider industry applications, particularly as they are keen to avoid private investment in order to increase open access to the knowledge. The CAA also said that there should be a mechanism to apply for further funding if projects have demonstrated value, particularly if there are difficulties in funding further work through their core/internal channels (due to spending restrictions that may apply to regulators' activities). The CQC expressed uncertainty about how to continue with future phases of their planned work once RPF funding ends.

Other regulators said that the duration of the RPF was insufficient to create significant impact. For example, CAA said that 18 months was too short to achieve their project potential, especially given the initial need for recruitment, which could take six months to complete, and the subsequent need to have plan in place for the team after the end of funding stops. Gaining approval for any ongoing support requires a demonstration of value and *"it would be much easier to make that argument when you had a full year of work already under your belt"* (CAA). Given this, they said that any future funds of a similar type should run for a minimum of two years.

Some regulators suggested that BEIS could encourage a greater consideration by regulators' senior management of how their project outputs/accomplishments could be better embedded into their 'business as usual' processes following the end of funding – to maximise return on investment. This could involve encouraging bidders at the RPF competition stage to explain how their project design and phasing can build-in senior buy-in and value realisation, and therefore facilitate a smooth transition of project outputs to 'business as usual' at the end of RPF funding.

6 Implications for future work

6.1 Lessons for future work

Findings have also suggested some clear directions for future work in this area, indicating ways in which either BEIS/BRE or regulators themselves can build on the success of the Fund and continue to develop more innovative approaches. A series of recommendations emerged for how future initiatives aimed at increasing innovative practices amongst regulators could encourage best practice based on learnings from this work:

- There was a very clear thread in the evaluation showing the importance of creating or achieving senior internal buy-in for the success of projects. Future guidance could stress this as an important early stage in the process. Support from the BRE to help publicise participation in the Fund internally could also help to secure internal buy-in and drive senior engagement with the Fund's innovation agenda and encourage senior leaders at regulators to support and drive innovation work.
- Likewise, findings from the process evaluation highlighted the benefit of understanding the needs and challenges of innovators at an early stage to help navigate the regulatory landscape, via user research or proactive outreach activities, such as attendance at conferences. Again, it could help to improve the quality of projects if this is suggested as a consideration for project proposals or suggested as best practice in future guidance.
- A number of regulators said that the life cycle of the RPF was too short to allow them to create significant impact, and worried about how they could find further funding to continue to progress the innovative work they had conducted – or to embed findings/lessons within their organisation. Future guidance and application processes could drive a greater consideration of project continuation at the outset. If BRE is able to link regulators of successful project to other potential sources of funding following project completion, then that could also help to maximise the impact of work completed.
- Similarly, a number of regulators asserted that the funding profile set up was too inflexible to support innovation projects, with a two-year split in funding requiring a level of detail in planning across the two years that was not realistic in the context of an 'agile' approach needed for innovation work. As such, future investment in this kind of innovative project could benefit from a more flexible system of funding, with less rigid constraints on the timing of spend.

- The CQC's Projects' Leads Group was widely considered as a valuable forum, allowing RPF project managers to share knowledge, discuss common issues and flag delivery concerns to BEIS, during the life cycle of the RPF projects. Some regulators suggested that, given the proven benefit of this group, BEIS should encourage the creation of a similar forum, led either by projects or by BEIS, in the potential next rounds of the RPF.
- The Regulators' Innovation Network was also widely considered a valuable forum for regulator collaboration and the sharing of best practice to support and respond to innovation. Regulators suggested that they see continued value in this network as a forum for diverse regulators to continue to work together and identify opportunities for cross-learning or productive collaboration going forward.
- Overall, regulators were keen for BEIS/BRE to continue to play a supportive role and showcase/explain/promote regulators (to their audiences) as more than just law enforcement agencies i.e. drawing attention to their innovative and innovation-supporting work, as well as helping Government better understand regulation's role in enabling innovation and private-sector investment. They suggested that this could happen via a focus on innovation in ongoing policy development.
- Evaluation of any future RPF work should take into account the diverse nature of regulation and that the role different regulators play can be very different, for example the IPO works across sectors in a way that others such as Ofcom does not. This could be achieved through the design of metrics that more accurately reflect specific project milestones or objectives, preferably clearly related to programme outcomes from the outset. This could potentially be achieved by drawing on the milestones created as part of the process of project monitoring against financial objectives.

6.2 Ongoing evaluation

Whilst this evaluation has produced convincing evidence of progress towards the long-term outcomes of the Fund, the strength of this evidence is limited by the timeframe of this research. We would therefore recommend carrying out follow-up case studies with regulators and key stakeholders to understand their perceptions of the extent to which projects have continued to contribute to the programme goals. This would build on the contribution analysis already conducted to create a more grounded understanding of longer-term outcomes.

Beyond this, if evaluations are carried out on future iterations of the Fund, then it would be beneficial to take into account the diverse nature of regulation in the management information collected for each project, to increase the specificity of findings. Given that regulators were already undertaking monitoring activities with Innovate UK, which were specific to their project, and could feel burdened by completing evaluation activities in tandem with this, then it would make sense for the evaluation to draw on this primary reporting.