The Open Innovation Team

An Independent Evaluation of a Cabinet Office Initiative

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This document: Full report and appendix (46 pages)

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Key findings & recommendations

Key findings

The Open Innovation Team's partnership approach is proving successful and should be retained in phase two. This funding model gives the OIT freedom to experiment and innovate with new ways of working, and to pursue opportunities wherever they lie, which has been instrumental in its performance to date.

The OIT has been very successful in leveraging its position at the academia-government nexus. By offering academics and PhD students a chance to work directly with the team, and so connect to important debates across government, they have secured support from 33 academic Policy Fellows from management and innovation disciplines, as well as 45 PhD students on 3-6 month internships.

The suite of OIT offerings for Whitehall has been clarified and made more accessible. The team has deployed its resources well to experiment with various products and generate some clear categories of work. This enables them to rapidly articulate their desk-based research offers, and position them to address departmental needs. The more intense, real-time events and collaborations with academics are still subject to longer lead times and negotiation.

Operating flexibly across both academia and government creates an impact tracking challenge. Many OIT impacts occur in domains outside of its direct control, perhaps long after it has catalysed a new relationship or opportunity. It is therefore extremely difficult to fully know the level of its success, although better data capture and information sharing from across its networks might help to some extent if the team can find the resources for further tracking work.

Key recommendations

The development and management of team members needs attention. A stronger HRM approach will enable capability growth, the retention of talent, and a formalisation of the OIT. This will allow it to scale up from its current more informal, entrepreneurial, leader-dependent ways of working.

The OIT needs to help its partners do more of the groundwork for collaborations. The existing work on signposting and brokering relationships needs to extend further, with the OIT taking an over-arching role in helping Whitehall and Academia create their own collaboration-readiness initiatives.

The value to individual academics of engaging with the OIT needs to be audited. The Policy Fellows' successes are currently reported in terms of value added to government, but now the value to academics themselves needs to be better understood. This will allow the OIT to position itself as a collaborator of choice, attracting the best academics in to its future networks.

There needs to be a focus on high-value service to customers in Whitehall. The OIT has a portfolio of offerings and has used desk-based research to improve penetration in to departments. It must now work hard to shift away from these useful but lower value outputs towards higher value collaborations, which build the OITs reputation and impact in the policy making arena.

Improved management systems for reviewing and valuing projects as they proceed are essential. The OIT has created a market for ideas and now needs robust tools and processes that support project staff and free up senior management time, but without stifling innovation and flexibility.

Reporting approaches for diverse stakeholders need to be reviewed. Officials, academics, partner universities, corporate investors, and senior Cabinet Office officials each require 'performance' evidence commensurate with their own systems of evaluation, which are radically different.

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Foreword

Across multiple sectors the shift towards more open, collaborative ways of working is being driven by our understanding that no single entity can hold all of the best ideas, or employ all of the best people. Whether these collaborations exist through a supply chain, or across once separate domains such as the convergence of bioscience with advanced engineering and big data, they create new opportunities for value creation that might otherwise go unimagined.

One common challenge within these Open Innovation settings is the task of evaluating performance, and evidencing the long-term value of these new, more open ways of working. With value being created and captured across multiple organisations, often in different forms, there is seldom any reliable method for truly measuring the sum total contribution made by these initiatives. In fact, it is precisely because these open business models are also disruptive and represent entirely new ways of creating and capturing value, that such difficulties emerge with traditional, single-firm-centric evaluation systems.

These operating conditions present a real challenge to those within government who wish to respond to the call for greater innovation combined with better accountability, which is well articulated in the five-year review of the What Works Network:

> *"We need to empower the public sector to innovate while also ensuring that we undertake robust evaluations so that we know whether changes in practice are delivering results."*
> **Rt Hon David Lidington MP**, Minister for the Cabinet Office
> **Rt Hon Elizabeth Truss MP**, Chief Secretary to the Treasury

This emphasis on understanding practice is essential if we wish to identify, scale and share those practices. Yet without sufficient investment in robust analysis and review, to fully understand these new ways of working and their long-term potential, we risk closing down our innovations because they do not produce evidence that conforms to our accountability norms.

That is why this review of the Cabinet Office Open Innovation Team is both timely and important. It is aligned with the principles and process beliefs stated in The Barber Report (2017), which emphasises the importance of analysing value in the public sector, and approaching such reviews as collaborative engagements between evaluators and the organisations they study. It also takes a deep, analytical look at the way we value the disruptions of innovation in government, and considers both the development of the Open Innovation Team up to now, and its potential to serve government, academics, and society in the future.

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Executive Summary

The Cabinet Office Open Innovation Team ('OIT') was set up in 2016 to help Whitehall departments generate analysis and ideas by deepening collaboration with academics. In practice, this requires the OIT to engage deeply with the policy work of multiple departments, and the many academics who might be relevant and valuable to those policy makers. Through events, workshops, individual meetings, tailored reports and literature reviews, the OIT brings these new sources of academic expertise in to Whitehall to help shape government thinking.

The OIT is relatively small, with four full time officials and a rotating group of PhD students on secondment from leading UK universities. Despite this size, the ability of the OIT to catalyse new relationships and knowledge sharing is already evident (see OIT reports to University partners).

The OIT's pilot phase ends in late 2018, and the team is now agreeing a second round of funding from university partners. These partners provide the financial resource to cover direct salary and operating expenses, whilst Cabinet Office covers location and infrastructure costs, making this a unique business model within government in terms of its funding approach and ways of working.

This review captures insights from 14 months of academic research with the OIT, in order to:

- **Make visible** the promising practices developed by the OIT, giving stakeholders a greater understanding of its strategic choices, operating structures, and ways of creating value.
- **Shape management practice** within the OIT through our analysis and recommendations.
- **Provide an evaluation** of the OIT that yields actionable information for all stakeholders.

To achieve these three goals this review utilises an ***Open Valuation Framework*** *(Appendix 1)*, a tool designed to guide the establishment, management and evaluation of open innovation initiatives. This rigorous approach studies open innovation initiatives across three perspectives, which are reported on in the following sets of summary findings and recommendations.

Strategic perspective

The core purpose of the initiative, its business model, and its multiple accountabilities.

Findings

- **The OIT partnership approach is proving successful:** The OIT business model is new, innovative and proving to be successful in delivering on its central vision and goals.
- **This partnership approach should be retained in phase two:** Central to the business model's success is the balanced funding approach that has been developed, with cash-funding from a core group of four universities matched to in-kind contributions from Cabinet Office. This approach gives the OIT freedom to be experimental in its processes, and opportunity-seeking in its project selection; Both are valuable attributes that need to be protected in the next phase of team funding and development.
- **Tracking value and being able to account for impacts is extremely challenging:** By operating across both academia and government, with projects being catalysed that then continue without direct involvement from the OIT, it is extremely difficult to follow and report on all of the team's

long-term impacts.   This is made more challenging by the very different nature of these impacts, since they span the needs of diverse stakeholders.

Recommendations

- **The OIT needs to help its partners do more of the groundwork for collaborations**: The existing work on signposting and brokering relationships needs to extend further, with the OIT taking an over-arching role in helping Whitehall and Academia create their own collaboration-readiness initiatives. This shifts the OIT from being a manager of its *own* work, to a manager of an *open innovation platform* which exists across multiple organisations: each one better aware of how it can rapidly and effectively create and exploit opportunities from the network.
- **This platform approach can help overcome bottlenecks:** Shifting from *control* to *orchestration* is a key feature of an open innovation platform, and a route to efficiency and scale. In practice what this means is that the members of the OIT are no longer doing all of the leg work both inside Whitehall and inside academia, trying to establish where opportunities might lie or how to get key academics ready to make a policy contribution. This work is shared, moved online, or embedded into new ways of working within government departments or partner universities.
- **A robust approach to performance management will be needed:** To protect its legitimacy in the long term the OIT needs to ensure that it develops an accounting approach that is better at tracking impacts, then reporting on them in ways that are commensurate with the norms of Whitehall departments, university partners, and individual collaborators.

Structural perspective

The acquisition and management of resources needed to deliver and report on the strategy.

Findings

- **The OIT has leveraged its position well to secure significant resources:** The desire to work with Cabinet Office, combined with the networks that the OIT has within government, makes it a very attractive partner for both established academics and PhD students. 33 academic Policy Fellows from management and innovation disciplines, as well as 45 PhD students on 3-6 month internships have engaged with the OIT, augmenting its capacity and capabilities significantly.
- **Close attention to Whitehall customers has led to the creation of a suite of accessible offerings:** The OIT quickly identified the need to streamline and clarify its offerings to government, and developed some clear products that allowed them to quickly communicate and deliver research insights to departments. The more sophisticated collaborations between departments and academics are still developed in a bespoke manner, through more intensive interactions.
- **The experimental, evolving nature of the team has left limited time for systems building or continuous staff development:** In this pilot phase the OIT has remained highly entrepreneurial, with the team leader taking a central role in an otherwise very flat hierarchy. This has worked well for idea sharing and rapid evolution, but further growth will require greater sharing of policy and process expertise, as well as decision-making capabilities.

Recommendations

- **Additional financial and non-financial resources should be secured, through new and creative approaches.** The OIT has a fixed 3-year budget from its partner universities, but can explore ways of generating income from departments as well as private sector sponsors, provided that this does not divert it from its central purpose. Non-financial resources could physically come in (e.g. through secondments), or remain embedded in Whitehall departments or universities but managed with OIT oversight (e.g. opportunity spotting or engagement readiness activities).
- **Data management systems need to be implemented consistently and robustly.** The OIT needs a greater body of evidence to support its claims for impact, and to allow it to better articulate its offer to both academics and officials. Having rich case studies, packages of KPIs, and clear indicators of value-added across its entire portfolio of stakeholders is now essential.
- **Team management and development is a key part of phase two:** The core workforce of the OIT now needs to be invested in, if they are to develop the necessary skills and confidence to take over more of the responsibilities currently held by the central entrepreneur and team leader.

Practice perspective

The everyday work that connects and generates value for the different stakeholders.

Findings

- **The OIT has developed a core competency in spanning the boundaries between government and academia:** This is a challenging task, given the very different worlds that the team is trying to bring together, but they are now confidently preparing academics for the policy domain and minimising the risk of poor quality interactions through careful briefings and event management.
- **Officials increasingly see the value of academic work, but there is more to do:** Most academic work is not designed to fit the needs of policy makers, but has been constructed for highly specialised academic audiences. The OIT has worked hard to synthesise and summarise key works, and connect officials to academics. However, the value of academic work is still opaque for many people, so the OIT must position it very carefully, at key moments, to make any impact.
- **Uncovering and systematically evaluating promising practices is a key stage of team development:** The many experiments in ways of working, combined with a high churn rate of staff, means there are many different systems and ways of working within the OIT. Working with academics, the OIT is now exploring and mapping its own ways of working, and seeking to build a more systematic and shared approach to the management of all of its activities.

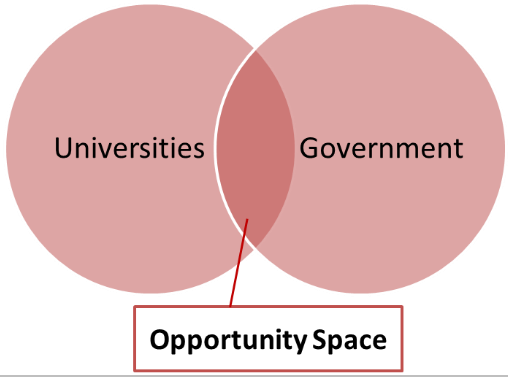
Recommendations

- **Making the OIT 'part of the furniture' of government needs careful consideration**: The OIT needs to do more to help departments get a clear sense of how, why and when they should engage with them. This embedding into the policy process is important for long-term legitimacy.
- **The value of working with the OIT for individual academics needs to be studied carefully:** In general, each academic makes their own choices about how to invest their time, but as yet the OIT has not systematically attempted to showcase the benefits it brings to an academic career. Greater effort to evaluate the outcomes of past projects could help the team to position itself as a partner-of-choice for leading academics, who might then commit more energy to this work.

1. Background and approach

1.1 The Cabinet Office Open Innovation Team ('OIT') was created in 2016 as an innovation within government, having secured its mandate from Jeremy Heywood, then Cabinet Secretary and Head of the Civil Service, who has shared his personal beliefs about the need for greater academic collaboration on the OIT blog space.[1] The aim was to explore and extend the opportunity space for knowledge sharing and collaboration where academia and government come together.

Figure 1: The Open Innovation Opportunity Space



1.2 The OIT ends its pilot phase in late 2018, and is looking to scale up its activities and establish itself more firmly within Whitehall during the next phase. The purpose of this review, therefore, is to capture insights from 14 months of academic research with the OIT, and use these in three ways:

- **To make visible** the promising practices developed by the OIT, giving stakeholders a greater understanding of its strategic choices, operating structures, and ways of creating value.
- **To shape management practice** within the OIT through our analysis and recommendations.
- **To provide an evaluation** of the OIT that yields actionable information for all stakeholders.

Recent history of the OIT

1.3 The Cabinet Office Open Innovation Team ('OIT') builds on an experiment called 'Launchpad', a project created voluntarily within government by Chris Webber. Through Launchpad, Webber experimented with event and network building formats to connect academics with policy makers.

1.4 Webber argued that there was a significant opportunity to collaborate with academics and so improve the evidence base for policy-making. The Cabinet Secretary agreed. However, there were limited resources to support the initiative, so he turned to the universities. Four academic partner institutions agreed to provide funding of £125,000 each to cover direct staff and travel costs of the team for two years. Cabinet Office provided office space and working infrastructure.

1.5 In order to be seen as a legitimate provider of expertise to government, the OIT needed to be free to seek out academic expertise *"wherever it lay",* regardless of the funding institutions. For the contributing universities, partner benefits included a mix of campus visits, policy schools for students, co-branding at events, and a target of 2 collaborations per year. Additionally, partners benefit from their proximity to the team, gaining a deeper understanding of policy making and the potential role academics can play in engaging with government more broadly.

[1] Read the full post from Sir Jeremy Heywood at https://civilservice.blog.gov.uk/2018/04/19/more-collaboration-for-more-innovation-in-government/

Method

1.6 Research took place from June 2017 to September 2018. Over 80 interviews were carried out with team members, officials across multiple departments, academics, senior leaders from partner universities, and senior officials concerned with the wider issue of academic-Whitehall collaboration and the importance of innovation in policy making. We also attended meetings and university visits, and ran workshops with the team.

1.7 Most recently (June-July 2018) a series of co-design workshops carried out in collaboration with scholars from ImaginationLancaster generated additional insights into the flows of value creation across projects, through time, and in relation to different open innovation practices.

1.8 In addition to this specific body of evidence, we draw on our research in other open innovation settings, across multiple sectors, as well as our wider research areas and relationships.

1.9 This review follows an approach that aligns with the underlying principles and ambitions contained in the recent report from Michael Barber (2017). In particular the review process has required open collaboration between the academic authors of this report, and the OIT itself.

The Open Valuation Framework: Three analytical perspectives

1.10 The Open Valuation Framework used in this report is a tool to guide the establishment, management and evaluation of open innovation initiatives. The framework brings three analytical perspectives to bear on the three key elements of open innovation management. The framework is explained in full at Appendix I, and it is summarised in Figure 5 below.

Figure 2: The Open Valuation Framework - evaluating open innovation in Cabinet Office

	Platform management *Mapping, connecting and leveraging stakeholders*	***Value management*** *The strategy and action of value creation*	***Performance management*** *Demonstrating impact and informing decisions*
***Strategic** perspective* *Evaluates the core purpose, value creating aspirations and direction of travel of the overall OI initiative*	**Stakeholders** The institutions & individuals, spanning different social worlds, with stakes in the OIT	**Business Model** The value logic of the OIT: how it creates & captures value, in what forms, and for whom	**Accountability** The ways the OIT accounts to stakeholders for its business model choices and their outcomes
***Structural** perspective* *Evaluates the acquisition and management of resources needed to deliver & report on the strategy*	**Resources** How the OIT is locating, leveraging and deploying platform resources to support its business model	**Management** The management structures and processes used to support value creating activities & people	**Systems & Data** The creation, management and utilisation of data to support decision making & accountability
***Practice** perspective* *Evaluates in detail the everyday work that generates value for different stakeholders*	**Spanning** The boundary spanning practices developed and utilised by OIT, and their multiple effects	**Valuing** How the OIT values, and helps others to value, different forms of knowledge or activity	**Evaluating** The particular evidence collected and used, and how is it used, to allow others to evaluate the OIT

2. OIT review: Strategic perspective

Stakeholders	Business Model	Accountability
The institutions & individuals, spanning different social worlds, with stakes in the OIT	The value logic of the OIT: how it creates & captures value, in what forms, and for whom	The ways the OIT accounts to stakeholders for its business model choices and their outcomes

Stakeholders

Headline findings

1. **The OIT has developed a strong and growing network of connections across both Whitehall and academia, and is creating high trust relationships that will yield long term value.** The worlds of academia and government are significantly different in many ways, and the OIT has invested in its knowledge of both areas such that it can move easily move between the two, and create meaningful, valuable connections across them.
2. **The operating environment within government is fast-paced and changeable, requiring the OIT to be flexible and responsive if it is to remain impactful.** The many different agendas that influence the work of government officials, and the difference in clockspeed between their work and the long lifecycles of academic inquiry, make the OITs work at the intersection of these worlds a real challenge. They have started to play an important role in helping academics see and adapt to these differences, and so catalyse more collaborations.
3. **Academic engagement with the OIT is high, and there is a real appetite for this work.** The OIT is filling a critical void in the interactions between government and academia, with academics having a strong interest to work with the OIT as a route in to policy and analysis.

Key recommendations

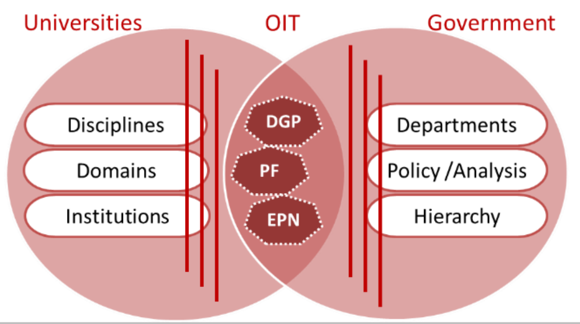
1. **The OITs existing networks are strong, but they need to be embedded more widely across the team and extended across Whitehall to allow for future growth.** The founder and key leader of the OIT has been very successful in using strong, high-trust personal networks to generate opportunities. Some success has been achieved in turning these personal links in to organisational ones, and in building new connections across other domains. However, to extend reach, the OIT will need to work harder to institutionalise its connecting channels.
2. **The next phase of university partnership is about to begin, and this is an opportunity for a step change in the partners' role as providers of broad domain expertise across academia.** To date the partner universities have focussed on generating connections for their own academics, but they could support the OIT much more through the collaborative development of domain profiles, highlighting key issues, approaches or underpinning sets of beliefs that mark the boundaries or areas of growth within disciplines. This would support the positioning of the OIT as a sophisticated, up-to-date link to academia within Whitehall.

2.1 Both academia and government are extremely complex networks of very different organisations and individuals, spanning multiple social worlds: different ways of thinking and working, with different languages, timeframes, resources, and ways of evaluating performance.

2.2 There are high levels of autonomy in both academia and government. Individual departmental officers across Whitehall can pursue their research agendas in multiple ways, making independent choices about the best use of their time and resource. Similarly, in academia, university hierarchies play a limited role in directing the research and external engagement activities of individual academics – these are determined by their own interests, career trajectories, and research agendas.

2.3 This combination of complexity and autonomy requires OIT to develop new ways of working that connect across multiple social worlds. To connect appropriate academics to the right policy makers at the right moment in time, OIT must understand, manage and span multiple boundaries (figure 6).

Figure 3: OIT stakeholders & their social world boundaries



2.4 In academia, the difference between Discipline, Domain and Institution can be illustrated through a campus visit to discuss productivity: First, an economist presents a macro-economic perspective, next a sociologist takes a family-level perspective on combined husband-wife productivity, then an HR scholar takes a workforce development perspective on firm-level productivity. Each uses different theories, terminology and data to generate entirely different results, yielding radically different ideas for policy interventions.

2.5 The academic partners of OIT and the Research Councils can play a more active role in helping the OIT to build a richer picture of different domains and specific academic disciplines, as well as the broader drivers of academic performance at the individual and institutional level.

2.6 In relation to individual academics, the OIT has tended to assume that they can easily 'see' the value of engagement with government. The strength of the Cabinet Office brand, the willingness of OIT to visit campuses across the UK, and the natural desire of many academics to seek outlets for their work have acted together to generate strong interest from academia. However, greater understanding of motivations and historic successes would allow the OIT to clearly position its offering to academics, in particular those leading thinkers who are very much in demand.

2.7 In government, a critical challenge is the relative speed and instability of the operating environment, when compared to the academic world. Opportunities emerge suddenly and often need to be explored and exploited quickly, as officials seek to address key issues to tight timescales. This represents a major clockspeed challenge for the OIT – matching up the long timescales of academic inquiry with the much shorter analysis or policy creating lifecycles of government. The instability comes from the complex and shifting mix of agendas and perspectives that affect each department, their ways of working, and the outputs they generate.

2.8 The OIT has been successful to date in working its way in to key policy discussions, thanks to a senior leader within the OIT who understands the value of network management and the importance of responding quickly to all opportunities. The challenge is to institutionalise thee personal networks, and embed these networking skills into the broader capabilities of the team.

Business Model

Headline findings

4. **The OIT has successfully constructed a partnership-based business model that is effectively creating and capturing value for academics and officials.**
   The model can best be described as a double-sided platform, since it not only delivers very different forms of value to both sides, but does this through a carefully constructed architecture that allows the OIT to rapidly and effectively recombine its intellectual and network resources in different ways, for each project that emerges.
5. **The funding model adopted by the OIT is yielding benefits in terms of flexibility in operations, and stability in resourcing, which allow for continued experimentation.**
   In securing block-funding for 2 or 3-year periods from academic institutions, the OIT has created a robust funding model that is not dependent on it pitching for individual projects. This allows it to seize opportunities wherever they emerge, and generates a positive impression of the OIT by acting as a nimble, autonomous unit within Cabinet Office.
6. **Until recently, OIT rhetoric included "free" services to government departments, which brought with it a risk that academic input could be undervalued or poorly understood.**
   The ability to offer advice at no cost to departments has allowed the OIT to penetrate new areas of government. However, this has brought with it concerns about how selective the team is about work it accepts, to ensure that it is not used for projects that the departments are simply not willing to fund themselves. Additionally, there is limited understanding of the non-financial value that academics need to generate through these engagements.

Key recommendations

3. **Additional funding will be required if the team wishes to scale up significantly during its next phase, which compels careful negotiations with Whitehall departments and business.**
   The routes to generating financial value from departments are being explored now, as are commercial collaborations for events sponsorship. Great care needs to be taken when introducing new partners, to ensure that the purpose and vision of the OIT is not diverted by the powerful voices and alternative agendas that come bundled with these resources.
4. **Platform building responsibilities need to be shared with academic partners, so that the OIT staff can focus on servicing departments well and extending networks.** To generate more impactful relationships across government the OIT intends to invest more resources into the delivery of advice, and the extension of its networks. This necessitates a shift in the pattern of responsibilities across the platform, with universities engaging more to identify, prepare and manage academics as they begin to work with government through the OIT.
5. **Experimentation with products and processes needs to continue into the next phase, but with consideration for resourcing and the overarching vision of the team.** The OIT is beginning to thrive thanks to its early experimentations, but there is still scope for more learning and experimentation. There is a commitment to this approach from the OIT, and this should be supported but also carefully evaluated by its key stakeholders.

2.9 It is of critical importance to the future of the OIT that its ways of creating and capturing value are carefully analysed, if it is to learn from its experiences, and share evidence of performance. In general terms, a business model describes the strategic decisions and underpinning logic of value creation, capture and distribution value amongst its stakeholders (Teece 2010b). From an open innovation perspective, unpacking this particular model allows existing and new partners to see how the OIT creatively accesses and deploys resources from across its network.

2.10 The OIT partnership approach is an example of a two-sided platform model: it seeks to serve two broad communities (government and academia) through an organisational architecture that allows it to rapidly create a range of engagements that generate multiple forms of value. We use the term ‘platform’ rather than ‘organisation’ because the OIT has been successful in creating a structure that spans multiple organisations, and has built its ways of working to allow it to access these resources consistently and effectively in different combinations as required by each project.

2.11 Thinking about the OIT in this way, rather than as a provider of academic knowledge to “customers” inside Whitehall is important because it emphasises the need to understand and manage value creation on both sides of the platform. For individual academics and their institutions to engage in uncompensated support for government work, they need to fit this in to their own agendas and performance metrics. Similarly, officials need to see how working through the OIT generates insights that might otherwise be more difficult, time consuming or costly to obtain.

2.12 Collaborating academics working at no cost to government departments must generate value for themselves and their institutions by creating, tracing and evidencing the impact of their research. This is valuable to universities in terms of generating future research grant income and in leveraging their position in university rankings such as REF[2].

2.13 To build its impact, the OIT has stated that it needs to work even harder to deepen collaborations within Whitehall and over-service its internal clients. This approach requires a significant focus on government-centred relationship management and delivery, which is time consuming for a small team such as the OIT. A consequence of this, therefore, is that it shifts the requirement on to academic partner institutions to work harder on other aspects of shared platform. In particular, they might develop their internal processes for identifying policy-ready researchers, work harder to prepare academics for government engagement, and create their own relationship management approaches to maximise the benefits of each OIT-led introduction.

2.14 This focus on deep penetration into Whitehall has important consequences for governance, reporting and accountability. University partners need to fully understand both the rationale for the chosen focus of the OIT, the timescales within which this is expected to become productive for their research impact goals, and more broadly they will expect transparency about progress in this challenging political process. These accountability issues are discussed further in the next section.

2.15 Looking now at resourcing, the OIT is supported by a combination of financial contributions from four universities (£125,000 each for 2 years), and non-financial support from government (office space and infrastructures). Even though there is significant financial value-in-kind from government, the way this is accounted for allows the OIT to be seen as a “free” source of expertise and knowledge, funded by the universities, which is both a benefit and a risk, as described in 3.20.

[2] To learn more about REF2021 and the role of impact in the assessment of quality research go to https://www.ref.ac.uk/

2.16 This funding model, and the perception that comes with it that this team is quasi-independent of the normal Whitehall bureaucracy, allows the team to work across government with significant flexibility. In receiving these block payments with a 2 or 3-year commitment from external funders, rather than project-by-project funding from within government, the team is not constrained to focus on specific paid-for deliverables: it can experiment, follow leads, and see what unfolds.

2.17 The experimental, adaptive and rapidly responsive value creating side of the OIT business model relies on this independence and flexibility. This can be understood more clearly by drawing a contrast with another successful team within Cabinet Office - Policy Lab – which has been an important and successful innovation for Whitehall, working on over 40 policy projects in just four years[3]. In this case funding comes directly from departments, on a project-by-project basis. For Policy Lab to 'win' work they must first identify, cost up, and agree and their contribution to a department. This gives their work greater structure and ensures that it is valued (since it is being paid for) but, at the same time, focusses on transaction-by-transaction valuing, reducing the scope to rapidly follow emergent opportunities that may speak to other departments or policy areas.

2.18 Our open innovation research highlights the importance of a business model that builds in this level of flexibility. We have seen, repeatedly, that the ability to pursue encounters spanning multiple social worlds – even when the goal and the probably beneficiaries are uncertain at the outset - is critical to the success of organisations such as OIT (Mason 2012; Mason, Friesl and Ford 2017; Mason, Friesl and Ford forthcoming). The transition from idea to final 'product' unfolds gradually, and the sequence only becomes clear through time as the OIT identifies which next steps are necessary. This is highlighted in Case Study 1, shown below.

2.19 The expertise that underpins value creation in Case Study 1 can be summarised using the three critical elements of the process the OIT follows (as shown in the key, in the case study diagram):

E **Productive Encounter.** An individual contestation in the sequence being choreographed by OIT, drawing together key actors to shape the next steps

Pr **Process Outcomes.** Identifying the next valuable steps to be taken that build on the knowledge created and opportunities identified through the encounter

PI **Policy Idea Outcomes.** Identifying end goals that allow the formative relationship to become more focussed and productive.

2.20 Being seen as a free resource to government carries some risk to the OIT and its goals of delivering high value academic insight in to policy making. Whitehall departments can make experimental use of the OIT at low risk, without first engaging in costing exercises, which is a good thing for market penetration, but equally they may seek to allocate low-importance work to the OIT which they simply would not bother to do if it had a financial cost. Additionally, the notion of free is misleading – for academics to engage in a significant way the departments need to understand the non-financial value they need from these encounters, and know how to help them achieve it.

[3] To learn more about Policy Lab go to: https://openpolicy.blog.gov.uk/2018/03/23/four-years-into-policy-lab-the-power-of-emergence-and-being-open-to-opportunity/

2.21 The OIT is now beginning to consider how it generates financial income from departments, where possible and appropriate. This is important if it is to continue to scale up its activities over the next three years without seeking further academic partner. These discussions are underway as this report is being authored, with the OIT exploring a number of different approaches.

2.22 Seeking income from business is also an option that the OIT is exploring, primarily through various forms of event sponsorship. Whilst this may generate direct financial returns, these corporations will come with their own agendas and needs, which will have to be incorporated into the overall purpose of the OIT. Our prior research has shown quite clearly the risk of significant purpose-drift when relatively new organisations seek to expand their resource base by drawing in new and powerful stakeholders (Ford and Friesl 2018). The OIT needs to be aware of this risk and retain a clear focus on its purpose and vision, and how new stakeholders will support these.

2.23 From an operational perspective, The OIT business model has been supported by its highly effective collaborations with Doctoral Training Centres to draw in PhD student interns. Thirty-one students completed either three or six-month placements by July 2018. The evolving nature of the OIT made it hard, initially, for some students to do productive work. However, the increasingly clear categorisation of team outputs is giving new PhD interns a quicker grasp of their role. They will also benefit from an increasingly stable, full time staffing of the team.

2.24 If the OIT value creating logic continues to require them to carry out initial, shorter, service projects for departmental contacts, then PhD students will remain a key resource. The “deep dives” and “rapid reviews” they produce would be used to lead to more substantial, high value projects. Equally, it may be that further experimentation is required with alternative rapid-turnaround outputs, to see if they are more effective at generating new contacts and valuable engagements.

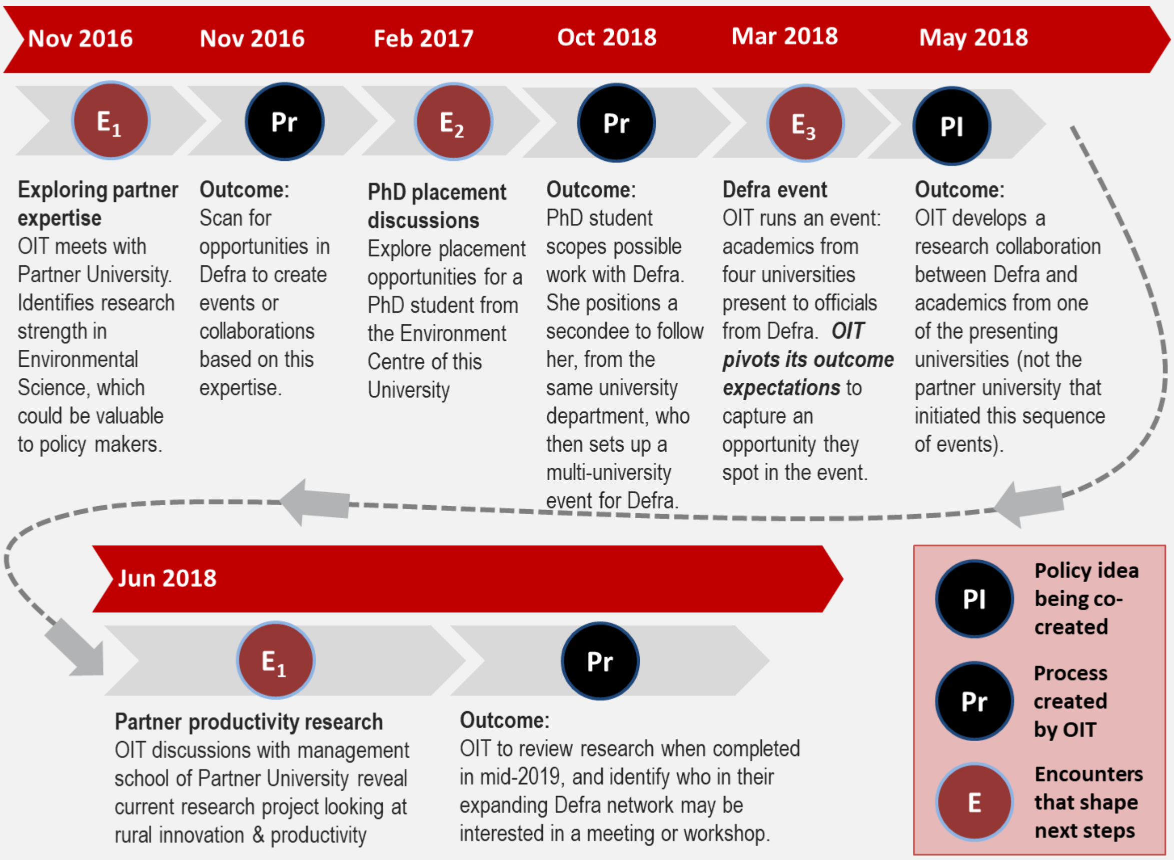
2.25 A secondment programme for early career officials could be developed by OIT to mirror the benefits of the PhD programme. This may allow the specific targeting of projects that a department wishes to pursue, as well as generating longer term learning across Whitehall about academic collaborations and how they can most successfully be created.

Case Study 1: Opportunity spotting and adaptability of the OIT

In this case study we see how opportunities for engagement are created then adapted to take advantage of emergent opportunities. The OIT was able to pivot, rapidly, as departmental needs emerged, and a quite different collaboration opportunity was identified.

The case highlights the longer-term value creating potential that comes from the OIT's ways of working. A significant amount of work happens in the first four phases of the diagram (below) to prepare for the main event at E3. It was here that the critical opportunity spotting and collaboration creating took place – pivoting away from the original, planned outcomes to take advantage of a strong theme that emerged during the event itself.

Once the OIT is accepted as a useful, legitimate and high-quality provider of new forms of expertise, there is significantly less friction when attempting to set up future engagements. So, although in this case study the partner university did not benefit from the first project with Defra, its management school academics are now well placed to work through the OIT to link their rural productivity research to Defra's implementation of their 25-year plan.



Accountability

Headline findings

7. **The OIT has developed tailored reporting approaches that are a good fit with its senior supporters in Whitehall, but it is still developing the ideal fit with academic partners.** The accountability approaches that work best in each setting are radically different, and this has been well understood by the OIT as it continues to secure high-level support in Cabinet Office through carefully managed accountability. When reporting to its four University partners the OIT has provided increasingly in-depth data on outputs and opportunities, which has been welcomed. However, there is still some desire from the partnership group to have deeper insight into the sensitive political work being carried out by the team.
8. **Open innovation accountability remains a dynamic and complex issue, and the tracking of long term impacts is extremely difficult to achieve, meaning that it is likely to be underreported.** Within clearly defined projects the OIT can track outcomes and impacts effectively, but as much of its work aims at creating new opportunities for collaboration, leaving academics and officials to continue their productive relationships, long term impact identification can be out of sight of the OIT. This creates a reporting challenge. When outcomes are not visible to the OIT they go unreported as part of its overall impact.
9. **The ground-up creation of the OIT gives it significant flexibility about how it reports, and who to, yet this also means it has limited hierarchical protection.** The OIT is unusual in Whitehall, as one of few organisations within government that is both a ground up initiative and financially resourced by external parties. This allows it significant freedom in terms of what, how and when it accounts for its performance. However, whilst there is strong approval for the mission of the OIT, it does not benefit from the security of being a key initiative embedded within a concrete programme of work.

Key recommendations

6. **Creating a clear and compelling approach to reporting is of critical importance to the OIT.** The ability of the OIT to communicate its value and impact in a way that is commensurate with the reporting norms of Whitehall is essential if it is to penetrate new domains, maintain its legitimacy, and become “part of the furniture” within government.
7. **Profiling the needs of academics at different career stages, then creating evidence of the value OIT can bring to them, will improve the OITs attractiveness to individual academics.** The world of academia is a place where the intellectually curious can invest their time and expertise into projects that interest them. At each stage of their working lives academics are subject to different forces and routes to success, but usually based on trajectories they set for themselves, irrespective of institutional objectives. The more easily they can understand the value of the OIT within their own chosen career path, the more they will invest in it.
8. **The nature of the reporting relationship between the OIT and its academic partners needs to be developed, and new forms of reporting and governance structures explored.** Academic partners wish to engage more deeply with the OIT and use it as a vehicle to better understand the policy process, taking more of a non-executive Director type role in their relationship with the team’s leadership, rather than a customer role. If such an approach is to be acceptable and beneficial to the OIT then it should consider the creation of a separate, more closely engaged, academic advisory board that has duties similar to non-executives, whilst the partnership board retains a customer-investor perspective.

2.26 Open Innovation accountability is extraordinarily complex, and through our own research we have seen accountability failings accelerate the demise of multiple initiatives. There are three overlapping problems with open innovation accountability:

- **Disruptive innovation** – usually open innovation is also a form of disruptive innovation: creating business model experiments that function quite differently from 'business as usual', meaning that processes cannot be described, measured or evaluated in the usual ways. And because it's an experiment, everything is changing as the team learns and evolves.
- **Distributed value creation & capture** –The OIT creates opportunities for others to prosper; this is the purpose of a catalyst like this, but it presents real problems when the OIT wishes to track its immediate and longer-term impact, as described in Case Study 2 below.
- **Diverse expectations** – The norms of accountability in each part of the OI platform will almost always be radically different: the content, style, qualitative quantitative mix, level of detail, method of presentation, focus of attention – all these things differ and if a stakeholder is making a significant contribution, they expect some level of adherence to their specific accountability needs.

2.27 OIT Accountability needs to work for both sides of its double-sided business model, and at both the individual and institutional level. It therefore needs to take multiple forms: formal historical reports focussing on actions completed and projects underway, informal narrative histories that highlight key successes, then more forward-looking reports that account for the potential value the OIT promises to deliver to individual academics and departmental officers in Whitehall. These different accountabilities are summarised in Figure 7 below.

Figure 4: Multiple Forms of OIT Accountability at the Institutional and Individual Level

	Academia	Whitehall
Accountability to institutions	**Partner Universities** ▪ Contractual expectations to deliver Partner Benefits need to be reported on. ▪ Increasingly Partners want forward-looking accounts of opportunities for academics. ▪ Accounts take the form of formal quarterly reports, presented at a meeting, supplemented by periodic 'lead-sheets'.	**Senior Cabinet Office Officials** ▪ Minimal hierarchical accountability – the funding model and relative newness of the team allows them significant freedom. ▪ OIT deliberately seeks chances to offer accounts, to build legitimacy, gain the support and 'cover' of hierarchy, and lay the foundations for future growth.
Accountability to individuals	**Academic Researchers** ▪ OIT provides verbal accounts to individuals about suitable Whitehall opportunities, once they have seen them in a meeting. ▪ No formal attempt to provide academics with clear, forward looking evidence of the benefits and costs of collaboration.	**Department Officials** ▪ OIT is constantly seeking opportunities to account to officials for their potential to support them, and to then become accountable for projects and outputs. ▪ No systematic, collective reporting has yet been established, so these future-oriented accounts remain as informal narratives.

2.28 **Partner University and Research Council** accountability is a challenge for the OIT that is yet to be fully resolved, primarily because of the different expectations and understandings of the partnership relationship. Reports to the academic partners tend to treat them according to a ‘customer’ rationale, where updates are provided on contracted services and supplemented by additional information to help generate new opportunities. Yet the academic partners have, to some extent, a belief that there should also be more of a ‘non-executive Director’ rationale, with an interest that extends much deeper than current and future outputs. Partners want a depth of insight into the ways in which the OIT is engaging with the policy process, the relationships being forged, challenges faced, and how the OIT is being woven in to the fabric of Whitehall.

2.29 This is a complex tension, and one that is exacerbated by two key issues: Firstly, the policy process itself is extremely complex and opaque, so attempting to report on it in a meaningful way would be both time consuming and problematic due to the sensitive nature of many conversations. Secondly, for the OIT it is difficult to treat the same partnership board as advisors and customers at the same time. There is a desire to present an honest but positive image of the OITs work to its investors, which makes it difficult to also expose any weaknesses or concerns.

2.30 **Individual academics** have almost total autonomy over who they engage with, how, why, and for how long. Autonomy increases for the more experienced academics – as the demand for their time grows and they become increasingly aware of which trade-offs need to be made to advance their career, build their personal academic brand, or invest time for purely philanthropic reasons.

2.31 To date the OIT has engaged with over 500 academics: this comes through 58 events where academics connect to Whitehall officials, 6 academics appointed as Policy Fellows to pursue specific projects, and 27 projects taking place between academics and 8 different government departments. These academics have seen value in connecting to government, through the OIT.

2.32 The OIT now has strong and broad enough relationship networks with academics to take a more pro-active approach to understanding both perceived and actual benefits of engagement. Whilst the Cabinet Office brand already has significant power, it would be enhanced by a clearer and more compelling collaboration proposition, which means getting a deeper understanding of what motivates academics at different stages of their career journeys to devote significant time and resources to projects with government. In this way the OIT can increasingly position itself as a partner-of-choice for the leading thinkers in multiple domains.

2.33 **Upwards accountability Within Whitehall** is limited, as the OITs creation from the ground up means it is not embedded in a project with specific deliverables, and its external funding reinforces this independence. This gives significant scope for creating an evaluation and reporting approach that matches their own business model. However, it also exposes the team to evaluation risks: with no targets it is unclear ‘how much is enough’ in terms of activity or outcomes, and processes that are both new and evolving are difficult to evaluate.

2.34 The other risk associated with independence is the lack of protective hierarchy (Roberts 1991): whilst hierarchical forces can be seen as stifling innovation in certain settings, they also offer security, legitimacy and clarity about performance expectations. The team must therefore build its own narratives of value creation, link them to broader concerns within Whitehall and academia, and create appropriate expectations of what success ‘looks like’ in order to build their own legitimacy.

2.35 Ongoing voluntary reporting to senior Whitehall officials has been important. By pro-actively seeking out opportunities to discuss performance, outputs, and future intentions, they have kept attention on team successes, positioning the OIT as an exciting and productive part of the Cabinet

Office's portfolio. This has unlocked the soft power (Nye Jr 2008) of senior officials, whose positive perceptions of the OIT has extended their influence more broadly across Whitehall.

2.36 **Working-level accountability within Whitehall** is where the OIT has some work to do, as it refines its product portfolio and establishes its offerings to departments. It now needs to consider how it accounts to current and potential future departmental contacts, collaborators and 'customers'. At present there is no regular data collection and reporting system in place to provide evidence to potential new users of the OIT, in whatever form suits their own accountability systems.

2.37 The soft power of individual relationships, combined with narrative accounts of work done and opportunities imagined for each new contact, is what generates new activity. To date this has been sufficient, but more formal and documented accountability will allow quicker and wider dissemination of evidence. This will be necessary for a scaled-up team that wishes to become embedded in the knowledge-based supply chain of policy makers across multiple departments.

2.38 **The move towards metrics** and countable KPIs needs to take place in the next stage of the OITs lifecycle. We have argued that the early establishment of metrics in high innovation settings can be dangerous (Ford 2017), and this risk is heightened when multiple value-seeking stakeholders are appraising the same sets of accounts. But metrification is essential for the OIT to conform to the accountability norms that exist in academia and government. The development of its own reporting approach, incorporating metrics developed ground-up from processes they know create value, will allow them to clearly articulate the flows of value through their work, and to their stakeholders.

2.39 The ultimate goal from a reporting perspective is to ensure that the OIT is accepted as "part of the furniture" of government and of academia, reporting in a consistent and well-understood manner to both sides in a way that maintains its legitimacy and allows it to continue to resource its business model and become a source-of-choice for those in Whitehall seeking academic expertise.

Case Study 2: Impact timeframes and the under-reporting of value

This case study highlights the ability of the OIT to produce long term, high quality outcomes that it never sees or reports on. It demonstrates that value will always be under-reported, due in large part to the widely distributed activities that flow out from a single critical incident.

The 2016 Autumn Statement included an intention to invest in a coordinated programme of 5G testbed facilities and trials, as part of over £1bn of funding to boost the UK's digital infrastructure.

In September 2017 DCMS worked with the OIT to organise a roundtable to explore the challenges of positioning the UK as world leader in 5G markets. The event brought together DCSMS officials and technical experts with a selected group of academics. The discussion uncovered key issues related to the 5G ambition. The event was useful, but did not generate a specific project for the OIT.

In February 2018 a joint Defra/DCMS grant call was issued for the 5G testbed facilities and trials. This call had clearly been informed by the DCMS roundtable organised. Furthermore, one of the academics from that event then became involved in a successful bid awarded in March 2018. The work is ongoing, with impact reporting expected in July 2019.

The OIT played a key role in curating both the event and then the conversations within that event, to inform the work of DCMS and the success of the academic involved.

3. OIT review: Structural perspective

Resources	Management	Systems & Data
How the OIT is locating, leveraging and deploying platform resources to support its business model	The management structures and processes used to support value creating activities & people	The creation, management and utilisation of data to support decision making & accountability

Resources

Headline findings

10. **The OIT has leveraged significant knowledge resources from its academic network, with 31 PhD students working with or through them, and 4 policy fellows linked directly to them.** By offering secondments that are of significant value to both PhD students and their Doctoral Training Centres, the OIT has succeeded in building up a strong resource of intelligent and creative workers. Whilst there have been issues with productivity, due to the short duration of secondments (3-6 months) the impact of these students on outputs and culture is clear. The four management and innovation academics that work as policy fellows have become valuable management resources for the OIT.

11. **The key resource of the OIT remains its founder, who has deployed his networks and political skill to great effect to build the brand, scale up the network, and draw in resource.** The greater challenge for the OIT has been the institutionalisation of these capabilities, as they are very much embedded in one key individual and to date have not been shared across the team through training or systems building.

Key recommendations

9. **The relationships with research councils and Learned societies such as the British Academy of Management and Academy of Social Scientists need investigation.** To date the OIT has used a limited number of channels to identify suitable academics to partner with, but there are other resources they can connect with, who will willingly work with them. Most academics build strong relationships within their domains of expertise, and these communities transcend institutional and geographic boundaries. Connecting through such communities may give access to significant pools of expertise.

10. **A longer-term approach to cross-departmental resourcing and training should be considered as part of a higher level strategic vision of open innovation across Whitehall.** There are opportunities for the OIT to explore, to draw in resources through secondments, or to become a placement for fast stream graduate recruits, or to embed their work and ways of operating in to broader policy training initiatives to secure resources in the longer term.

11. **Key capabilities within the team need to be institutionalised either through** systematisation or education. This is essential for both scaling and sustainability. This is a significant challenge for the OIT, as institutuionalising key personal relationships, while developing systems to manage them, and individuals to take on a greater share of the connecting work across Whitehall, are all tasks that require careful planning and long-term commitment.

3.1 The OIT was founded on a single critical resource in the first instance: Chris Webber and his specific networks across government, gained from time spent working in Treasury and in the deputy Prime Ministers strategy unit. By using these networks to good effect, while deploying significant political skill and judgement, Webber rapidly built opportunities for engagement across Whitehall.

3.2 Of equal importance has been the ability of Webber to leverage the intangible resources available to the OIT: the brand of Cabinet Office, the position at the nexus of two powerful worlds (academia and government), and the ability to access both worlds in interesting and meaningful ways, for both policy development and academic advancement. The creative and persuasive use of these intangibles has allowed the OIT to extend from four core staff, and access to the basic infrastructure of Cabinet Office (computers, office space, support services etc.) to an organisation that has benefitted from the work of 31 PhD students and 4 Policy Fellows, working with the OIT.

3.3 PhD students, working as interns for between 3 and 6 months, have been an important resource in the OIT pilot phase, through their flexible involvement in multiple initiatives, and the more specific delivery of academic products such as rapid reviews. In addition, their role in shaping the culture of the OIT should not be under-played: they bring a blend of academic curiosity and mindsets, drawn from multiple disciplines and universities, and embed this in the daily practices of the team.

3.4 Whilst the work of seeking out the right academics has been shared across the team, and in particular has been a useful task for PhD interns, there has been limited success in distributing the internal government network building across the team. This work frequently requires a deep, nuanced understanding of the policy process, combined with a level of seniority and legitimacy to convene meetings where policy work might be discussed. Only Webber has this network and position, and to date it has proved challenging to institutionalise his personal political skill.

3.5 As the OIT scales up it needs to determine the role of future PhD interns. Until now, intern productivity has been limited at times because of their short tenure, limited understanding of the workings of government, and the imprecise nature of work in this entrepreneurial setting. As activities stabilise it may be possible to develop more robust pre-arrival induction processes and intern management duties for core staff, to allow a PhD pool to be maintained. However, the OIT offering will need to be differentiated from secondments offered through research councils.

3.6 The link to research councils (RCs) incorporated two main elements: the direct placement of RC staff within the OIT, as a contribution in kind, and a wider enabling role, connecting the OIT to key institutions and a broad range of experts across multiple disciplines. The placements ended with the first year of the pilot. This was understandable given what we know about how resources are incorporated into new organisations (Ford and Friesl 2018): human resources come bundled with people's ways of working, carried over from different social worlds, which can often be incommensurate with the approaches being attempted in a new setting. As is often the case with early stage entrepreneurial initiatives, it proved challenging to adopt the more structured engagement and knowledge exchange practices typically supported by the research councils.

3.7 There have been clear benefits to RC collaboration. RC placement staff contributed to a range of activities including facilitating links between the OIT and Doctoral Training Partnerships, as well as RC-based portfolio owners in mental health, economic policy and digital transformation. These staff also led a policy project on "muscular skeletal health" and brought in RC funded experts to a joint Department of Health (DoH) and Department of Work and Pensions' (DWP) initiative with the 'Work and Health Unit'[4]. More broadly, through these staff the RCs were able to make links to key areas evidencing what works in policy and research design, including links to the 'Alliance for Useful Evidence' and 'GO Science' initiative highlighting 'Areas of Research Interest'[5]. Furthermore, RC staff played an important role in the OIT's development, offering advice and guidance across a wide range of issues: project and team management processes, the research (funding) landscape, communications strategy and doctoral student placements, engagement opportunities with the research base and routes to identifying academic expertise relevant to policy projects.

3.8 The value of research councils as a knowledge resource needs to be revisited, ensuring that their future role plays to their specific strengths. With their deep knowledge of the academic world, of researcher needs, career trajectories, funding opportunities and priorities, research councils can provide invaluable expertise to the OIT as it extends its engagement with academic institutions.

3.9 The OIT has demonstrated, through its own experience, the value of bringing in management academics to support, challenge and evaluate their work. There are many other academic groups that the OIT can draw on as it responds to call for similar support from other departments. The British Academy of Management and the Academy of Social Sciences are two key examples of institutions that could be drawn on, each representing several thousand academics, as they seek the right expertise. As OIT deepens its understanding of different departments, their ability to position management scholars into similar advisory and research roles across Whitehall should be pursued.

3.10 The OIT is also looking at approaches for drawing in resources from across Whitehall. One option is to work with departments to select a project and a key individual to lead it, embedded in the OIT and learning about the practices of open innovation. Other options include connecting the learning from the OIT to any Cabinet Office policy training, which may lead to the creation of new secondments. It may also become possible to second-in fast-track graduates so that the culture and practices of open innovation become embedded across government, from the ground up.

Management

Headline findings

12. **The creation of a flexible suite of service products for government has been a key success for the OIT.** High levels of creativity and rapid product innovation has built a suite of offerings that span different time frames, depths of analysis, and levels of real-time interaction with academics. This mix has allowed the OIT to deploy all of its resources to good effect, to build increasingly trusting and productive relationships across Whitehall.
13. **Team management has been entrepreneurial in nature, with a flat hierarchy, high levels of trust and autonomy, but limited time for detailed training or personal development.** The result of this form of team management is the creation of a strong culture of entrepreneurialism, intellectual inquisitiveness, and a can-do attitude to servicing departmental needs. However, the limited time available for individual management and training of the full-time officials means the OIT remains very reliant on its founder.

Key recommendations

[4] https://www.gov.uk/government/groups/work-and-health-unit
[5] https://www.gov.uk/government/collections/areas-of-research-interest

12. **The relationships between the different products needs to be monitored carefully, to ensure that desk-based research leads to high quality academic interactions.**
The OIT has as its purpose the deepening of collaboration between academia and policy makers, and it must ensure that all products support this ambition. The creation of easily accessible desk-based research products is a valuable tool in gaining penetration into new markets for ideas across Whitehall, but the conversion rate to meaningful academic collaborations and policy-oriented engagements needs to be constantly evaluated.
13. **Investment in team management is essential in a scaled-up next stage of the OIT.**
There has been little time or resource for significant investment in management development within the OIT, and its evolving processes would have made this very difficult. As the work of the team stabilises, the OIT must address this gap and consider how it appoints, manages and develops staff to ensure that they can function more independently and more productively across specific areas of responsibility.
14. **OIT management influence across the platform needs to be developed. There are significant gains to be made here, in terms of scalability and efficiency.**
The level of collaboration successes can be significantly increased if the wider stakeholder groups invest in pre-engagement readiness work. This involves greater co-ordination across the platform, as the OIT identifies 'what works' and constructs scalable processes for the broad dissemination and embedding of this knowledge.

3.11 OIT management of its structures, processes and people is a broad area of evaluation. In this section we focus on three specific aspects of this managerial work with:

- **Product management** – looking at the portfolio of service offerings the OIT has created for government, how these relate to each other, and evolve over time.
- **Team management** – evaluating the managerial work being done by the leadership of the OIT, as it builds and develops this new team from the ground up.
- **Platform management** – in section 3.10 we highlighted the importance of evaluating the OIT as a platform creating and managing entity, responsible not only for its immediate work but also for facilitating the work of others to support its value creation and capture objectives.

3.12 **OIT Product management** has evolved continuously during the pilot phase of the OIT. In the early phases of the team's life this was a highly creative and interactive process, as there were no pre-constructed offerings and so the team designed bespoke service projects as opportunities emerged. This was an important learning phase in the lifecycle of the pilot, in that it exposed the challenges of rapidly tuning in to the needs of specific officials, but also highlighted the potential value of having some off-the-shelf offerings that would be easier to understand and 'consume'.

3.13 Over time the team moved towards a clearer articulation of the portfolio of services it offers. This is an ongoing process, and so the categorise (figure 5, below) are not yet fixed. We analyse these based on the number of academics involved, and the way the OIT connects to them.

3.14 The route that Whitehall departments take through this portfolio needs to be closely monitored now, looking in particular at conversion rates from the left side (research based) to the right side (real-time activity) of the table. For the double-sided business model of OIT to function well it is essential that research activity is always undertaken with a view to the creation of real-time academic collaborations: the research should do the twin task of identifying which academics need to be brought in, and demonstrating the OITs value as a link to useful academic knowledge.

Figure 5: OIT Product Portfolio for Government Departments

	Research activity	Real-time activity
Individual academic	▪ **Campus meeting** OIT visit to a university campus, where the team meet academics individually to see a presentation of their research, and discuss possible opportunities for engagements in Whitehall.	▪ **Policy-oriented project** Academic working with a department on a specific policy area or area of research ▪ **Presentation-meeting** OIT curate a meeting between a selected and well-briefed academic and specific Whitehall officials
Multiple academics	▪ **Rapid review** A review of key literature in a domain, usually taking 1-3 weeks. Identifies key issues and leading thinkers to connect with. ▪ **Deep-dive review** In-depth literature review, usually taking 6-10, as a deliverable to a specific government department.	▪ **Event** Held in or near Whitehall, attended by a broad audience of officials, with multiple academics presenting their latest thinking. ▪ **Workshop** A specific group of officials and academics, coming together for presentations then debate on a key topic.

3.15 **Team management** has been a challenge for the OIT leadership, due to the high churn rate of core staff and phd students, and the limited time available to dedicate to managerial thought or action. The small team size and need for all staff to be operationally active, at all times, leaves little scope for reflection, training, or the systematisation of processes.

3.16 The entrepreneurial way of working and the need to 'see', then seize, opportunities for engagement has also put pressure on full time staff working for the team's leader. These officials, despite having valuable skills and experience, do not have the same knowledge of policy making and the politics that surrounds it as their leader; nor do they have the networks across Whitehall to tap in to, or the organisational vision for the OIT that is very much embedded in the team founder.

3.17 These kinds of knowledge and expertise gaps are always going to occur to some extent in newly created organisations. In the next phase of growth, more time must be committed to managerial work. The leadership must find ways to support staff development and productivity through 1) embedding their deep tacit knowledge into operational and educational resources for team use, and 2) identifying specific ways to deploy staff that draw on their individual strengths and experience, such that they can make their unique contributions without excessive supervision or training.

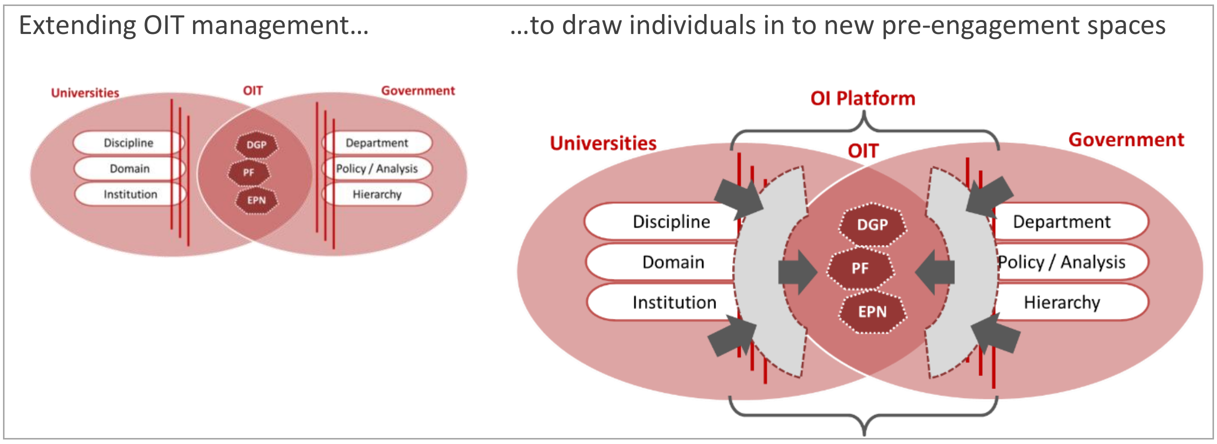
3.18 **Platform management** by the OIT reflects its role in shaping the ways of working that span universities and Whitehall departments. Up to now the team has worked hard to curate useful conversations, design impactful meetings and events, and generate projects either for the team itself or for academics that they connect with. What they have done less of is work with communities of academics and policy makers to help them prepare for collaborations, or in a stage before this, to more clearly show them the specific value that they offer.

3.19 With no established process for preparing groups for engagement, on either side of the OIT platform, there is often considerable work to do to bring two sides together for each single encounter. This means working one-to-one with an academic over multiple meetings to get them into the right thought space to begin direct engagement with Whitehall officials. At the same time, multiple meetings with officials may be needed to explain the potential of the team, the services it can offer, then to scope and shape a project. This is a very resource intensive process.

3.20 As part of its scaling up, the OIT should address the issue of readiness-to-engage within both academia and Whitehall. This requires an increasing level of managerial reach across the platform. This would include helping universities to establish tools and processes that support academics as they learn about, then begin to engage with, evidence-based policy making and the OIT.

3.21 This extension of OIT management beyond the borders of its own organisation will mean a purposeful attempt to create new interfaces with both Whitehall departments and multiple universities. If the OIT can create new spaces for interactions, and new interfaces that enable academics to come part way in to the policy space, and policy makers to come part way in to the academic space, both sides can more easily be drawn in to successful collaborations (figure 10).

Figure 6: Managing across an Open Innovation Platform



3.22 These new interaction spaces need to be developed with care, building on existing expertise within OIT but also the educational expertise in academia and the policy profession training expertise within Whitehall. This learning platform can include digital elements that utilise pre-crated resources to allow operation at scale and at-a-distance, in conjunction with real-time workshops that bring people together at key moments.

3.23 To operate nimbly but on an increasing scale, and at greater speed, the OIT needs to turn more of its intensive craft-like processes into more systematic and scalable digital processes that are less human-resource intensive. The pre-interaction space is one area that is ripe for this transition.

3.24 **For university partner institutions**, fully engaging in OI Platform management, and embedding the necessary processes into their own ways of working, may have specific REF 2021 related benefits. These benefits would be evident at both the individual researcher and institutional level.

3.25 For individuals, the Stern Review[6] specifically calls for a richer picture of a researcher's impact to be considered, moving beyond the need to show direct links between research papers and specific impact, and instead point to a body of expertise and a network of individuals and institutions that value and draw upon that expertise. This recommendation was accepted in the Initial Decision on

[6] https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/541338/ind-16-9-ref-stern-review.pdf

the Research Excellence Framework published by the REF[7] ('REF 2017'). Under such criteria, being able to demonstrate direct policy impact is not essential to support an impact case, but evidencing multiple interactions with policy makers, through events, meetings and collaborative projects that draw on a body of work and expertise may considerably enhance an impact case.

3.26 At the institutional level, the next REF will include "an explicit focus on the submitting unit's approach to supporting collaboration with organisations beyond higher education" (REF2017, page 6). Furthermore, the way the institution manages impact opportunities will form part of the research environment element of the assessment (page 10). Taken together, this suggests that there is value in institutions taking meaningful and measurable steps to co-construct an OI Platform with the OIT, and develop a research environment that fosters policy-readiness across disciplines.

Systems and Data

Headline findings

14. **The OIT has made good use of core IT and HR systems within Cabinet Office, whilst experimenting with different models of project and database management.** To date the experimental nature of its value creating work has prevented the OIT from settling on any single system for tracking and reporting. This has created inefficiencies in terms of the need for regular review meetings that look at all current or potential projects, but at the same time these creative settings underpin the development of innovative new services.
15. **This is a complex domain, where experimentation is still required, so the OIT has yet to fully systematise its workflows or databases.** This may become a challenge for the OIT as its growing network of both academics and officials will become increasingly hard to manage. In particular the connections forged through the OIT but no longer reliant on the OIT are likely to be lost in normal CRM systems as they focus on a single firm's networks, not a platform of interconnected individuals. Similarly, its workflow management has been based on various software experiments, but to date no one solution has been fully adopted.

Key recommendations

15. **A more robust data capture and management system is needed for tracking, reviewing and evaluating projects. This system needs to be built on a deep understanding of OIT.**
The work done by the OIT is complex and its routes to value creation are often unclear, uncertain and reliant on rapid in-the-moment evaluations of emergent opportunities. Creating a management information system that supports – rather than suppresses – this kind of work is a challenge that needs to be addressed by the OIT. Work with academics has begun in this area, to build a system ground-up such that they can explain *how* they create value, and generate evidence to evaluate processes, outcomes and impacts.
16. **Academic institutions and government departments need to take on greater responsibility for activity tracking and data capture as it relates to all OIT engagements.**
The long-term legitimacy of the OIT rests on its ability to clearly evidence the scope and scale of its engagement and impact. We know that much activity catalysed by the OIT is then continued outside of their line of sight, and they do not have the resource to implement full-scale activity tracking. It is very much in the interests of all stakeholders to become partially accountable for and contribute to this process.

[7] The full report setting out the initial decisions made in relation to the 2021 evaluation is available on the REF website at: http://www.ref.ac.uk/media/ref,2021/downloads/REF2017_01.pdf

3.27 The creation of the OIT took place with a clear understanding that this was an experimental pilot, and therefore the routes to value creation would be somewhat unknown at the outset. From a systems perspective this meant that there could not be a single project management system, or performance management system, or customer relationship management system, purchased off the shelf and implemented from day one. In any case, the team did not have any background knowledge of such systems, so selection and implementation would also have required significant research, followed by a period of learning.

3.28 The result of this startup situation was that the OIT relied on Cabinet Office for core IT and HR systems, and for basic computing systems such as Google Docs, but everything else to do with workflows or network management had to be discovered, tested, and them possibly embedded.

3.29 To date the OIT has relied on multiple, changing ways of recording projects, tracking progress and recording outcomes and much of the knowledge is regularly recreated and recombined during team meetings. These reviews are valuable, allowing the team to creatively identify priorities or new avenues for exploration. However, the loose, entrepreneurial structure of reviews and the lack of formalised, recorded outcomes suggests that this process would be difficult to scale effectively. For workflow management, decision making, and external accountability purposes the creation of appropriate systems is a major opportunity for productivity improvements in the OIT.

3.30 To implement such systems, however, requires a clear understanding of how work is categories, how projects break down into sections, and how databases of contacts need to be constructed so that they are meaningful to all team members. The difficulty of categorising and describing the different stages of OIT work is central to their data management challenge. At present the task of determining what is valuable when, and how, relies on tacit knowledge embedded in the leadership of the team, making it hard to collectively assess projects, opportunities, specific pieces of research, the readiness of individuals for certain next steps, or the likely fit between potential collaborators.

3.31 Work is already underway with academics at ImaginationLancaster to address this value information systems challenge. Funded partially by HEFCE (Higher Education Funding Council for England) the academic team are starting to collaborate with the OIT to generate a vocabulary of value, created ground-up. The goal is to embed this in to new ways of reviewing, describing and accounting for the work of the team, and to progressively support the OIT as it develops its information systems to support its specific ways of working.

3.32 From a platform perspective, data management needs to extend beyond the OIT and in to both academia and Whitehall. The systems the OIT creates can provide the right backbone of data for multiple uses only if it can trace value creation across the platform. This means embedding requirements to submit evidence of project impacts to OIT in to all forms of engagement activity. Only then can both government and academic stakeholders manage their relationships with the OIT based on a more comprehensive picture of its body of work.

4. OIT review: Practice perspective

Spanning	Valuing	Evaluating
The boundary spanning practices developed and utilised by OIT, and their multiple effects	How the OIT values, and helps others to value, different forms of knowledge or activity	The particular evidence collected and used, and how is it used, to allow others to evaluate the OIT

Boundary Spanning Practices

Headline findings

16. **The OIT has made significant, successful investments in developing and refining boundary spanning practices.** The work required to create an apparently simple meeting, event or policy-oriented collaboration is both nuanced and difficult, because of the major differences in cultures, ways of working, and ways of valuing knowledge that exist in academia and government. Getting academics and their work aligned to policy challenges and ready to engage has become a core capability of the OIT. However, much of this team strength remains un-analysed and so not easily shared.
17. **Much boundary spanning expertise is still held by a few key team members, and is therefore a somewhat fragile capability.** The pilot phase has revealed many lessons about how to connect academics to policy debates. While these lessons are being learnt and shared through the oral histories of the team, they are not yet being formalised as structured evaluations of process and practice, or training resources for future team members.
18. **Connecting to policy makers has proven a significant challenge due to the rapidly shifting nature of the policy domain, and the need to connect to more senior officials.** To position the OIT to deliver direct policy impact is still a challenge, because it requires boundary spanning work that reaches in to more senior layers of government. At present the general approach is to connect with mid-level / working-level officials and position the OIT offering through them. Officials are subject to many pressures and have access to many resources, so making the OIT a provider of choice is a core on ongoing process.

Key recommendations

17. **The OIT needs to be more explicit about its reviews of 'what works' in all of its boundary spanning work, and use these to construct learning resources for the team.** The wealth of experience needs to be captured, analysed and condensed to support management reviews of activity, and to ensure good inductions and continued learning. The tool that the team has co-created with academics can be useful here, if it is used consistently.
18. **Helping officials and departments get a better sense of what it means to engage with academics is necessary if the OIT is to connect more easily and efficiently.** The recent blog posts and other network building activities have helped officials see the value of the OIT, but much more needs to be done to make them 'part of the furniture' and to enable officials to easily select them to connect across the academic boundaries.

4.1 The ability to find, evaluate, assimilate and deploy new knowledge has been referred to as the *absorptive capacity* of an organisation (Cohen and Levinthal 1990). This is dependent upon a whole range of boundary spanning practices and a key element of this evaluation has been looking in depth and detail at these practices within the OIT. This extended inquiry in to the daily work of the team has been critical in allowing us to see and evaluate how knowledge exchange and co-creation at the boundaries of organising takes place, and to understand what works, and why.

4.2 The sharply contrasting cultures, ways and pace of working, evaluating and presenting knowledge that exist between academia and government are a very significant barrier to any form of boundary spanning. The OIT has made significant, and successful, investments in developing and refining boundary spanning practices. Much of this has been focussed on getting academics and their work ready for engagement with Whitehall departments, giving them sufficient insight in to the ways of shaping, presenting, explaining and connecting their knowledge to key agendas, such that they have a better chance of being seen as relevant and valuable in a policy setting.

4.3 The start point for much of the boundary spanning work is desk-based research, as the OIT identifies potential contacts in academia with expertise that is relevant to a need within a specific department. There are then multiple phases within this knowledge absorption process (cf. Todorova and Durisin 2007; Zahra and George 2002). This is a sequence of interactions – by email, face-to-face on a university campus, then further conversations and meetings - that gets both the academic and their work aligned to new ways of thinking, valuing and working (Mason 2012; Mason, Friesl and Ford 2017; Mason, Friesl and Ford forthcoming). This can be difficult and frustrating.

4.4 A challenge for the OIT is making visible this carefully managed and progressive sequence of work at the boundary. It is far more skilled and intensive activity than merely setting up a meeting, but articulating the work done and the key decisions that must be taken is a challenge. Indeed, the Institute of Government's recent report 'How government can work with academia'[8] also makes this point. Whilst the outcome might impact on policy as highlighted in the case study below, the depth of engagement needed to bring groups together and overcome the barriers to working collaboratively are seldom obvious, and certainly never made public.

4.5 Much of the focus to date has been on helping academics transition in to the policy domain. There is no equivalent for policy-makers and officials, encouraging or supporting them to become more adept at academic engagement. As the value of OIT-led engagement becomes more apparent in Whitehall, there is scope for them to create a broader programme of activities to help officials access and benefit from their services.

4.6 This act of making their work of clear value is not a simple task, however. The OIT currently connects well to officials at a similar level to the leader of the team, i.e. working-level officials rather than Director-level. This then requires some political work to secure high level commitment to engagement with the OIT. The ideal scenario is to rapidly develop both senior buy-in and working-level understanding of the product they can rapidly get access to, but this is rare. Usually much work is required to position the OIT as a service that can deliver the insights needed, within the required timeframe, and to a trusted level of quality.

[8] The IfG Report can be found at https://www.instituteforgovernment.org.uk/sites/default/files/publications/IfG_government_academia_June_2018.pdf

Case Study 3: Shaping policy for young people's mental health

In June 2017 a core member of the OIT was seconded to the Department of Health and Social Care (DHSC) to provide support and explore opportunities for collaboration.

A major concern of the DHSC was that of mental health provision. OIT organised a conference for over 50 officials and analysts in collaboration with Warwick University. The event was hosted at The Shard in London and brought together academics and officials to discuss children and young people's mental health. This event foregrounded a gap in provision when young people moved to adult services, and showed that 16-25 year olds were particularly vulnerable.

OIT proposed a government commitment to address young people's mental health through a new partnership. They worked with DHSC and DfE (Department for Education) to establish this partnership, to inform and improve the mental health provision for 16-25 year olds.

A specific recommendation in the Green Paper published by the DoH and DfE in December 2017, titled, "Transforming Children and Young People's Mental Health Provision: a Green Paper", stated "We will therefore set up a new national strategic partnership with key stakeholders focused on improving the mental health of 16-25 year olds by encouraging more coordinated action, experimentation and robust evaluation." (p.34)[9]

Valuing Practices

Headline findings

19. **The ability to help officials see value in new forms of academic knowledge is becoming a core capability of the OIT.** There is no doubt that there is still some way to go in helping many officials to accurately value the contribution that academic engagement can make to its policy work, particularly from academics working in the social sciences, but many more interesting discussions are being curated by the OIT and it is building a solid brand as an enabler of access to useful insights.
20. **The creation of well labelled academic 'products' has made it easier for departments to rapidly see the value of OIT work.** During the pilot phase the clarity of the offer became an important issue for the team, and it resolved this through the creation of some clear product categories. To date this categorisation has focused on the research-based offers and has not yet stretched to deeper academic engagements, which still tend to be negotiated over time and as bespoke relationships.
21. **Academics are adapting to the policy landscape with support from the OIT, but this is a labour-intensive process on both sides.** The expectation of the OIT and officials remains one of academic readiness to enter the policy domain, rather than policy makers learning how to better work with academics and their ways of shaping and presenting knowledge. This is understandable as the OIT seeks to embed itself into Whitehall, but it does then place a significant burden on academics as they need to learn new ways of presenting themselves, their work and their offer to a policy audience.

[9] The Green Paper can be found at https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/664855/Transforming_children_and_young_people_s_mental_health_provision.pdf

Key recommendations

19. **The OIT has made it easier for officials to value their desk-based research. Work is now needed to categorise and communicate their more sophisticated offerings.**
    Seeing the value of academic research in relation to a specific policy problem is a challenge that the OIT is working to overcome. It has now positioned its desk-based research products very successfully and is beginning to use these as a lead-in to other collaborations. Work now needs to be done to clarify these other offerings, how they proceed, what is expected of each party, and how they can maximise impact.
20. **The value to individual academics of engaging with Whitehall needs much greater investigation. This will allow stronger positioning of the OIT in academic communities.**
    Each academic sees different value in OIT-led engagements, both at the commencement of the work and as new opportunities unfold. In many cases the value is unseen by the OIT and yet could prove decisive in convincing others to engage in similar work in future. It is important to audit the engagement value as experienced by academics over the life of their involvement with the OIT, and with projects catalysed by the OIT.

4.7 Valuing practices are the ways in which the OIT helps others to 'see' the value in different forms of knowledge or activity. These are an essential element of any open innovation initiative as it is a way of bridging the gap between very different social worlds, for example, helping people to see just how useful a certain new piece of knowledge could be in their work.

4.8 The OIT uses a range of valuing practices to work out what is valuable to whom and when at the academic-policy nexus. This involves understanding the valuation systems of multiple worlds and working out either how they can be made commensurate, or how something valuable in academia can be translated such that the valuing systems of policy-makers can 'see' this value.

4.9 In relation to its desk research offerings to Whitehall departments, the OIT's new categories of work such as 'Rapid Reviews' and 'Deep Dive Reviews' make it easy for officials to connect academic insight to their own priorities. The creation and refinement of these products has been a key element of the OIT approach to making its services easy to identify, and legitimizing itself as a provider of academic expertise. This clarity has been appreciated by officials and has led to increased levels of engagement. The next challenge is clarifying its more sophisticated offerings such that different forms of collaboration can be easily understood and embarked upon.

4.10 In relation to encounters with academics, the OIT has continually improved its approach to valuing the academics and their work. This distinction between individuals and their outputs is important, but not immediately obvious to academics when they initially encounter the OIT. Successful engagement with policy makers requires a broad knowledge of an academic domain, a deep understanding of specific topics that relate to a policy challenge, and the interpersonal skills to be a good communicator and collaborator. For the academic this is a very unusual way of being valued: it is much more usual to present a specific, highly specialised piece of work to a conference or academic journal. Translating what is valuable in academia into something valuable for policy makers takes time, and they need to understand what is needed, and how they might benefit.

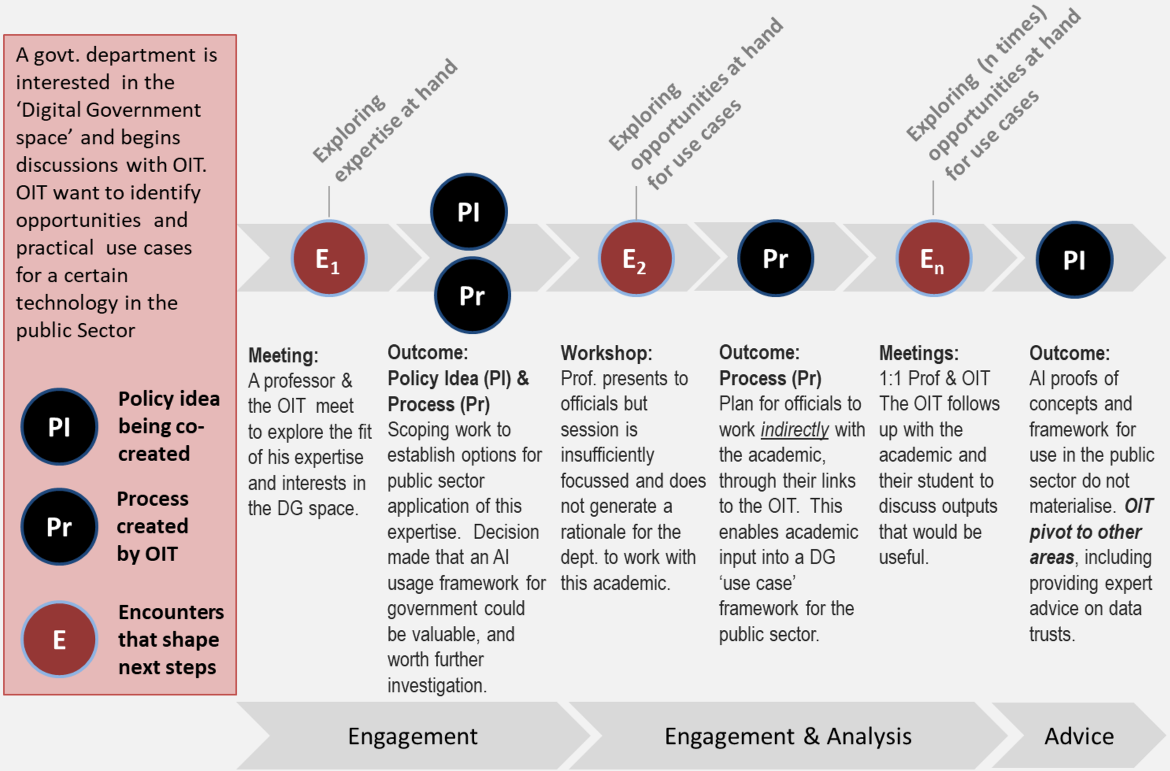
4.11 Matching the individualistic requirements of both academics and officials is a major challenge that the OIT regularly faces. Helping those on both sides to understand the needs of the other in a specific encounter, and the ways of working they need to adopt, is an intensive process. In general, the expectation is that academics must adapt: the OIT is not yet able to make adaptation demands of officials, when at the moment their own value to these officials is still being negotiated.

4.12 One concern with this relative power imbalance, with academics being expected to adapt to the policy landscape, is that it can then place the focus on the outcome goals of policy makers and put the value to academics into the background. Whilst the value to departments is relatively immediate, and easier to identify and articulate, the OIT has a much less clear picture of the value they generate for academics. Work needs to be done to analyse and report on this value, to support future engagement with individual academics and ensure that the OIT is a collaborator of choice.

Case Study 4: Learning and adaptation through a challenging collaboration

This case study shows how the OIT rapidly values different forms of expertise and collaborative ability, adapts in the moment, and also revises its longer-term ways of working.

In a collaboration to support the Digital Government initiative the OIT identified an academic with potentially valuable knowledge. The innovation process mapped out below had been followed successfully before. This time it went wrong. Despite being briefed on how to present to officials (critical to the OIT network), the presentation was 'low quality' and 'boastful'. There was a risk that all of the potential value of this fledgling collaboration – to policy makers and the academic – would be lost. The OIT moved quickly to change the process to one which they mediated, and they pivoted again when the outcomes did not follow as expected, to deliver other expert advice.



Key learnings for the OIT were 1) To 'vet' academics carefully then brief them in detail before putting them in front of officials. Where there was a relationship risk, they would act as mediator throughout the project; 2) To focus on meetings or workshops with 2 or more academics present, to reduce risk and increase the likelihood of generating a positive outcome.

Evaluating Practices

Headline findings

22. **Two critical evaluation capabilities have been developed by the OIT, and it continues to deploy them well.** The first of these is the ability to evaluate 'in the moment', making sense of the possibilities of a certain piece of work, and the opportunities that emerge in the middle of a meeting that they have created. The second is their ability to reflect on their activities more broadly, evaluate what works and why, and continually adapt.
23. **The ability to evaluate their impact on academic performance is less well understood, and not reported.** As yet the OIT has remained focussed on evaluating its impact on government, and its ability to deliver specific benefits to academic institutions. It has not, however, evaluated the benefits of each collaboration for those academics involved, or sought to understand the norms of evaluation that are part of their academic life.
24. **Work is underway to build a better process evaluation tool, that will help the OIT unpack and report on its activities.** This new tool has emerged from a close study of the working practices of the OIT, and is a first attempt to systematically evaluate the flows of work, how they connect, and then build a reporting language that all stakeholders can understand.

Key recommendations

21. **Continued work on building a clear evaluation tool is essential for consistency, transparency and legitimacy.** The scale of the team's activities already demands a more robust system of ongoing evaluation, using a form of language and categorisation that is consistent and easily understood. Building on the success of the pilot project, creating evaluation, reporting and other management tools will be of great value to the OIT and its wider stakeholder group, delivering clearer insights for managers, partners and officials.
22. **Evaluation work needs to be carried out from multiple perspectives, in response to the individual accountability demands of the academic community.** By generating evaluations that focus on policy-oriented services the OIT very strongly backgrounds their service to individual academics. Whilst this may show the wider academic institutions that the overarching project is a success, it does not enable individual researchers to evaluate the OIT as a collaborator of choice, and a worthy place to invest time and energy. Evaluating key aspects of each encounter from an academic perspective will generate useful data for forward-looking accountability, to be shared with potential new academic collaborators.

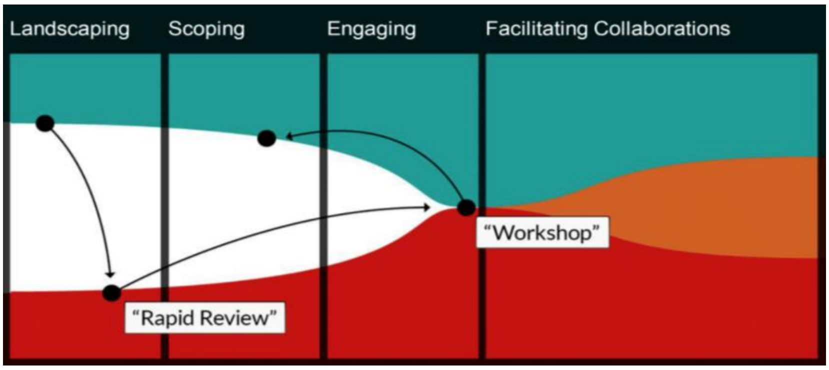
4.13 For the OIT evaluation work takes two main forms: 1) evaluations performed *'in the moment'* as they rapidly weigh up evidence in an event or meeting, and determine whether to create, pursue, revise or abandon some new piece of work or relationship; 2) more retrospective evaluations that span a body of activity, to understanding what works, and why. In each case the OIT must evaluate from multiple perspectives if they are to act as an enabler of collaborations – ensuring that the different stakeholder needs are being addressed, and the plans being developed are workable.

4.14 To develop a useful evaluative frame for itself and its work the OIT first needs to identify these multiple valuation practices, conventions and norms at play in its setting (cf. Boltanski and Thévenot 2006; Stark 2009). There is a significant challenge here in that the valuation systems are not always visible to those outside of the specific domain in which it is used: for example, the OIT has some knowledge about what might constitute 'impact' for academics, but their knowledge of this, and their understanding of how academics might use evidence from OIT-related work to support their impact cases, grant applications or other evaluations is very limited. This is unsurprising as many of the academics they meet will also have only a limited grasp of these things.

4.15 Creating common metrics or conceptualisations of performance that work across all stakeholders is extremely difficult: the information needs and ways of evaluating 'success' are very different for the separate institutions, and the separate individuals. Yet, having one body of evidence that is commensurate with the norms of evaluation of all the key individuals who interact with the OIT would support dialogue about how the OI platform works, and how best to support it.

4.16 Progress is being made towards a consistent, common form of evaluation, through work with experts from ImaginationLancaster. A key objective was to address the issue of building a common language of value creation. This language had to be developed and owned by the OIT. The work led to a general framework for the team's activity (see Figure 14 below).[10]

Figure 7: A general framework to explain how the OIT produce value (produced by Roger Whitham and David Perez, ImaginationLancaster)



4.17 The general framework and flow of projects through it, as shown in figure 14, illustrates how the OIT make knowledge valuable through the organising of key academic-policy collaborations. Such visual tools can play a critical role in evaluation, by highlighting the flows back and forth between lower value, desk-based projects and high value real-time collaborations. They are critical because they embed the ideology and value logic of the business into the reviews of practice. A first version of this tool is now in use at the OIT for tracking, reviewing and learning about their work.

4.18 Finding the right blend of visual, narrative and metrics-based evaluation tools is the next major step for the OIT. In the approaching second phase of its lifecycle the team must both r*eport* on value creation and *explain* its value creation approach as it seeks to legitimize its ways of working across a wider audience. It must remain mindful of the accountability norms of its key stakeholders (Ford 2017) and evolve its evaluative approach, to ensure it keeps pace with expectations.

4.19 We must acknowledge that the OIT is not powerful enough to shape entire systems of accountability across the domains of government and academia. However, we believe they should seek to shape small pockets of accountability practice, such key individuals in positions of influence can make sense of the value they deliver and share this knowledge across government.

[10] To learn more about the tool kit developed to explore and explain how activities make things valuable contact the OIT or the authors at Lancaster University.

5. Conclusion

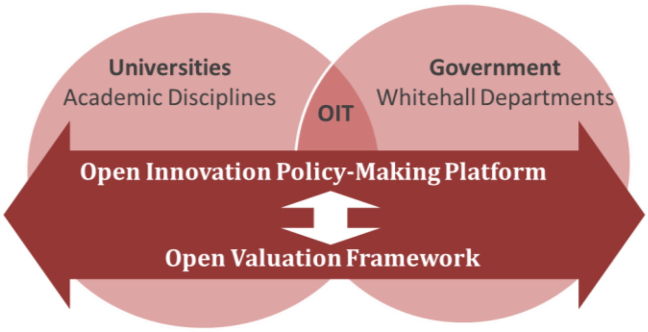
5.1 This review makes visible and accountable the full spectrum of strategic, structural and practice-based work carried out by the OIT. By utilising the Open Valuation Framework we have been able to identify, analyse and make recommendations in relation to: the overall purpose, business model and direction of travel of the initiative ***(Strategic perspective)***, the organising of resources to deliver the strategic intent ***(Structural perspective)***, and the recursive, routinized, everyday work that generates value for the different stakeholders ***(Practice perspective)***.

5.2 Throughout this review we have utilised case studies and rich descriptions of practice. In this way we aim to show the complexity of the work being done here, and how different elements of the review framework relate to each other to build a holistic picture of the organisation.

5.3 In addition, we offer robust analysis, comment, and sets of recommendations within each of the three perspectives. This supports the three goals set out at the front of this report: making the work done by the OIT both visible and accountable, whilst at the same time offering clear guidance to support OIT management as they seek to develop their practices into the next stage of growth.

5.4 It is essential that the OIT now re-evaluates its own identity: not simply as a 'team' but rather as a platform creator, manager and facilitator. With growth comes the chance to have more senior, strategic leadership operating above a more clearly defined and segmented team. With this established, the OIT needs to act with confidence to develop its team, structure its work, and position itself as an organisation capable of shaping open innovation across boundaries.

Figure 8: Locating the OIT within an Open Innovation Platform



5.5 This more intensive, collaborative management work across boundaries will yield multiple benefits to the OIT. The team will generate greater insights into the social worlds of those they serve, and will understand the barriers to change or opportunities for engagement for both individuals and institutions. This will allow the OIT to take an active role in facilitating the development of open innovation practices in both academic institutions and government departments, helping them to prepare for engagement in ways that are both effective and scalable.

5.6 To support the achievement of these goals, constant evaluation is required to inform management, and maintain legitimacy amongst a wide group of critical stakeholders. This report is a first significant step in this ongoing work, and sets out 22 actionable recommendations for the OIT leadership team. It is understood that, as a lean and entrepreneurial team that must remain busy and productive, all these recommendations cannot be implemented at once. We therefore urge the OIT to review these with its Partnership Board, to prioritise these recommendations and develop a suitable timetable for implementation.

Appendix I: Open Valuation Framework

The framework developed during this evaluation project has been designed to support the creation, management and evaluation of open innovation initiatives. The construction of this framework draws on extensive research in multiple open innovation settings, extending from 2011-2018. In the following sections we present: the academic rational for creating an open innovation performance management framework (section 1), the Open Valuation Framework and its practitioner-oriented description (section 2), and the theoretical underpinnings of the framework elements (section 3).

1. Rational for creating an open innovation performance management framework

1.1 Adapting to open business models

The study of performance management frameworks is a strong theme that runs through the accounting literature. Berry et al. (2009) identify some of the dominant models in this domain, including the balanced scorecard (Kaplan and Norton 1996), levers of control (Simons 1995) and the extended PMS framework (Ferreira and Otley 2009) and little has challenged their dominance since that paper ten years ago. These three models have come to play powerful roles in business as well as in academia, yet they are rooted in the study of large, stable organisations with well-established and formalised ways of working. Researchers have sought to develop our understanding of performance management in start-ups and high innovation settings in general (Chenhall and Moers 2015; Davila, Foster and Jia 2015; Davila, Foster and Oyon 2009). However, there has been no significant attention paid to open innovation in this literature (Chenhall and Moers 2015) or any attempt to validate these dominant frameworks in contexts shaped by novel, collaborative ways of creating, capturing and distributing value (cf. Teece 2010a). In developing the Open Valuation Framework we build on these established models to provide a framework that is useful in practice, but carefully grounded in robust research.

When looking at value creation in open innovation settings, we see it coming through collaborative action, based on resources located in strategic networks of organisations (Mason, Friesl and Ford 2017). The open innovation literature pays much attention to outcomes connected to different OI strategies (Keupp, Palmié and Gassmann 2012; Laursen and Salter 2006) and often provides generic descriptions of how to structure and organise for success (Chesbrough 2007; Seely Brown 2006). Meanwhile, the performance management literature tends to focus on dyadic relationships (Anderson and Dekker 2005; Dekker 2016; Van der Meer-Kooistra and Scapens 2008; van der Meer-Kooistra and Scapens 2015) and pays little attention to broader systems of innovation. The extant literature offers us no explanations for organising valuing practices across multiple organisational boundaries. We refer to the inter-organisational structures and processes of an open innovation setting as the *open innovation platform* (cf. Gassmann, Enkel and Chesbrough 2010; Nyström et al. 2014; Schaffers et al. 2007). Additionally, we argue that valuing of practices for the production of ‘good outcomes’ should equally be inter-organisational. We call this Open Valuation.

The central organisation - in this case the cabinet Office Open Innovation Team (‘OIT’) – plays a critical platform building and co-ordinating role across a network that extends in to academia and government, creating the stable nexus of activities and materials (Boudreau 2010) that can be (re)combined and adapted for many encounters. Yet, each stakeholder takes responsibility for its own activities, while guiding and gaining guidance from the work of others across the platform. This requires careful co-ordination and collective accountability. We argue that without evaluating and addressing the issues of management across the open innovation platform, the OIT will miss out on valuable opportunities for action. This demands an approach to evaluation that is broader than the traditional firm-centric models developed in the performance management literature to date. It demands an open valuation framework.

1.2 Multi-stakeholder accountability

As multiple actors come together to support a new initiative, each brings their own agenda that they wish to see incorporated into the over-arching purpose (Ford and Friesl 2018). In each case they will expect the new entity to account for the strategic choices it makes about goal integration and prioritisation, and then again to report on its achievements against their outcome expectations. Yet the ways in which these accountings are developed is not simple.

We know that different organisations have their own normalised systems of accountability (Messner 2009), linked to varying dominant logics that span from highly formalised and transactional approaches to more relational and collaborative understandings of performance management (Broadbent and Laughlin 2009). There are also multiple ways in which information might be expected to be shared or combined, for example as a blend of accounting and strategic information to support key product development decisions (Jørgensen and Messner 2010), or face-to-face meetings where detailed testimonies are expected (McKernan 2012) , or where investors make judgements about individual leaders, and their ability to deliver on their promises (Roberts et al. 2006). In each organisation we can expect to see a very different blend of both the types of accountability in use, and the modes by which accounts are expected (Ford 2017). The legitimacy and long-term sustainability of an open innovation initiative is dependent upon its ability to deliver accounts that have meaning and value to each different stakeholder.

To evaluate an open innovation initiative, we therefore have multiple strategic concerns: the ways in which goals are identified, integrated and addressed, the ways in which value is created and distributed amongst stakeholders in relation to their expectations, and then the ways in which the organisation manages its accounting. By ensuring that the accountability approach is well developed appropriate and supported by appropriate data management practices and structures, the open innovation initiative guards against the risk that investors or partners will fail to 'see' or believe the long term value creating potential that is emerging through their activities.

1.3 Structures and systems

It is widely accepted by accounting scholars that the systems we use to manage organisations do not operate in isolation, nor in perfect harmony, but rather as a package (Malmi and Brown 2008; Otley 2016; Otley 1980) of formal and informal approaches that span a wide range of cultural, cybernetic, planning, administrative and reward systems (Malmi and Brown 2008). The way these different 'controls' are used in high innovation settings should, according to Simons (1995), produce order and predictability through diagnostic, often financial, control measures, but at the same time generate sufficient liberation of employees to be creative, innovative and risk taking as they seek new opportunities on behalf of their employer. The ability to find the right balance is a valuable organisational capability (Mundy 2010) that can lead to beneficial dynamic tensions.

When studying management structures and systems, both formal and informal, we must consider the effects of the package, and for open innovation settings this package extends beyond the firm. When different social worlds (Star and Griesemer 1989) collide in sites of open innovation, it is important to understand the deep rooted cultures, beliefs and ways of working that they are embedded in. For our open innovation evaluation approach, this requires us to unpack the ways in which individuals establish what is worth doing at the nexus of these different social worlds, how they manage their subsequent actions, and how they then account for them to others.

Central to the analysis of these interactions, decisions and actions is the use of a practice-based approach. Practice theory has become increasingly important in academic work, taking us beyond the study of formal plans and stated objectives, to look more closely at the blend of skills, experience, judgement and creativity that combine in the daily work that really goes on in organisations (Mason and Spring 2011; Schatzki 2005; Schatzki 2006; Vaara and Whittington 2012). This approach forces us to look at, for example, a business model not as a static document, but as an evolving frame built on histories and experiences, which shapes and is shaped by all who come into contact with it (Mason and Spring 2011). If we fail to understand the rich picture that practice theory expects us to create and analyse, we cannot properly evaluate such complex and evolving settings, or make meaningful recommendations to support their further development.

2. The Open Valuation Framework: a practical overview

The Open Valuation Framework brings three analytical perspectives to an open innovation setting: the ***Strategic perspective*** considers the overall purpose, business model and direction of travel of the initiative, the ***Structural perspective*** looks at the organising of resources to deliver the strategic intent, and the ***Practice perspective*** investigates the recursive, routinized, everyday work that generates value for the different stakeholders.

We use these three perspectives to guide the investigation of three key bundles of practices. We argue that these practices are critical to open innovation performance, have the potential to engage others in the open innovation initiative, and support the scale-up and long term legitimization of open innovation activities. We label these bundles of practice as:

- ***Platform management***, which considers the stakeholders that create and shape the open innovation environment, the resources they commit to this work, and the ways in which they are implicated in essential boundary spanning activities across the platform.
- ***Value management***, which considers the business model of the open innovation initiative, the management structures and processes that support the value creation aspirations of that business model, and the work done to allow different forms of knowledge to become valuable.
- ***Performance management***, which considers the multiple forms of accountability arising through the initiative, the accountability systems that support formal and informal reporting, and the ways in which evaluations take place to guide decision making and future investments.

This combination of three categories of management practice, analysed through the strategic, structural, and practice perspectives, allows us to penetrate the complexities of an open innovation setting. The way these categories and perspectives combine is summarised in the diagram below.

The Open Valuation Framework - exploring value creation across organisational boundaries.

	Platform management	*Value management*	*Performance management*
Strategic perspective	**Stakeholders** The institutions & individuals, spanning different social worlds, with stakes in the OIT	**Business Model** The value logic of the OIT: how it creates & captures value, in what forms, and for whom	**Accountability** The ways the OIT accounts to stakeholders for its business model choices and their outcomes
Structural perspective	**Resources** How the OIT is locating, leveraging and deploying platform resources to support its business model	**Management** The management structures and processes used to support value creating activities & people	**Systems & Data** The creation, management and utilisation of data to support decision making & accountability
Practice perspective	**Spanning** The boundary spanning practices developed and utilised by OIT, and their multiple effects	**Valuing** How the OIT values, and helps others to value, different forms of knowledge or activity	**Evaluating** The particular evidence collected and used, and how is it used, to allow others to evaluate the OIT

Strategic Perspective

The strategic perspective looks at the purpose of the open innovation initiative, and the action to deliver on this: who is being connected and served (*stakeholders*), what approach is being taken to create value for them (*business model*) and how can they assess success and determine future actions (*accountability*). Through this perspective we identify these fundamentals, then look at how they operate together in practice, gaining insight into the opportunities and challenges arising from these strategic choices.

Stakeholder theory focuses on *actors* and argues that anyone invested and involved in or affected by an organisation has a ‘stake’ or interest in it and its activities: employees, interns, collaborators, vendors, governmental agencies, and more. Freeman’s (1983) theory suggests that a company’s real success lies in satisfying all its stakeholders, not just those who might profit from its activities. This perspective is useful here as it enables us to explore the interests of a distributed and fragmented collective that is being brought together through OI as a strategic approach.

Business Model theory, rather than focusing on the actors involved in the action, focuses on ideas and intents of the initiative as a guiding, organising logic for action (Magretta 2002; Ocasio and Radoynovska 2016; Thornton, Ocasio and Lounsbury 2012). This enables us to explore how the initial logics and values of the initiative guide every-day practices and activities.

We understand accountability as a complex and multifaceted concept, which incorporates hierarchical, social and personal elements[11]. Most obviously, accountability is concerned with the notion of making actions or outcomes visible and reportable (Garfinkel 1967) such that reasons for conduct might be offered or demanded (Roberts and Scapens 1985). Yet accountability also reflects social forces that act informally, across organisations and groups, focussing attention through time and establishing lines of fidelity between intentions, actions and outcomes (Roberts 1991; Schweiker 1993). Finally, and importantly for innovators whose primary motivations are often internalised beliefs, accountability can be personal (Sinclair 1995), as we hold ourselves to account in ways that may have significantly greater impact on our ways of working than managerial accountability (Laughlin 1996). Accountability, in particular in complex OI settings, can only be enhanced if we recognise the multiple ways in which it can be experienced (Sinclair 1995).

The accountability aspect of our strategic perspective has proven, across multiple research sites that we have encountered in recent years, to be a critical issue for open innovators. The combination of distributed value capture across multiple stakeholders, and disrupted business models that do not follow conventional routes to 'success', creates a challenge of accountability that must be overcome if open innovation is to demonstrate its legitimate place in an organisation. Again, this is underpinned by the detailed knowledge of the normalised accountability systems (Messner 2009) of key stakeholders: understanding how to create accounts, be they verbal, reports, slide decks or quick email updates, that are commensurate with different established ways of formally and informally accounting for performance.

Underpinning this strategic analysis is social worlds theory (Clarke and Star 2008). This approach pays great attention to the very different contexts that people are embedded in, which define the ways they work, think, talk, account for success and interact with each other and with external organisations. For academics this might be the norms of teaching, researching, publishing in academic journals and presenting work at conferences; in Whitehall these norms might be related to policy-making, analysis or evidence gathering, drafting advice, and managing projects to tight timescales. By understanding stakeholder social worlds we can see what is valuable to different people, how they can achieve it through the OIT, and what needs to be done to allow people and knowledge to connect more easily across these boundaries.

[11] For a full description and summary of the many forms of accountability that exist in innovative settings, and how they are enacted in different ways, see the ICAEW Finance Direction Initiative report entitled "Business performance management: When not to measure" by Dr Chris Ford FCA, available at https://www.icaew.com/-/media/corporate/archive/files/technical/business-and-financial-management/performance-management/business-performance-management/10476-when-not-to-measure-web-version.ashx

Structural Perspective

The structural perspective looks in detail at the selection, co-ordination and management of resources (Lawrence and Lorsch 1967). Located at the nexus of multiple organisations, an OI initiative has the potential to draw in a wide variety of financial and non-financial resources. Through novel ways of organising there is the potential to create interesting value propositions for different individuals, leveraging the unusual position at the boundary of organisations to access resources from across the platform. We want to unpack this resourcing at the platform level and understand its implications for management, and for the delivery of the business model.

The management element of the structural perspective pays close attention to the formalisation of processes, products and management practices within a team, and across the platform (Jarzabkowski, Lê and Feldman 2012). As an open innovation initiative evolves and its experiments begin to yield insights into the promising practices, choices are made about the structure required to support management activity. We explore the choices made, the structures being put in place, and the potential opportunities that such structuring of open innovation work might reveal to different stakeholders.

Finally, this perspective looks at the hard infrastructure, the technology, data, accounting and process management systems that are used to capture and create evidence for internal use, and external reporting. Once again the experiments that take place as multiple stakeholders come together with different histories associated with different systems means that there is a period of figuring out, as the most promising approaches for any particular context are identified and embedded (Chenhall 2003; Roberts and Scapens 1985). We wish to see how this process is unfolding, and connect this inquiry to the stakeholder management, business model delivery, and accountability concerns of the strategic perspective.

Practice Perspective

The practice perspective looks more closely at the work done by the open innovation initiative as it develops open innovation approaches and establishes routines, across a wide range of interactions (Mason, Friesl and Ford 2017). We identify three specific types of practices that seem particularly worthy of attention: boundary spanning practices, valuing practices and evaluative practices.

Boundary spanning practices (cf. Geiger and Finch 2009; Tushman 1977) enable individuals to work across the different social worlds of organisations and institutions, and are critically important to open innovation. The practice perspective seeks to understand and evaluate the ways in which boundaries are managed and sometimes remade, the type of work done to build networks within and across different domains, and the ways in which people and knowledge are made ready for transition and translation in to new domains (Callon 1986). We also wish to evaluate the facilitative and support work that develops boundary spanning practices within other organisations and individuals across the platform.

Valuing practices are those that allow us to work out what is being made valuable to whom and how. These practices allow an open innovation initiative to determine which forms of knowledge (in this case) may be valuable to whom, which encounters are worth pursuing, and then which constituents inside different domains can ‘see’ or translate the value of the new offering in to something that they can work with. We recognise that multiple valuation practices and their conventions can be at play in a single setting (Boltanski and Thévenot 2006; Stark 2009) and want to unpack these to see how they might become generative of value across multiple social worlds.

Evaluating practices include work done in-the-moment to identify or explore the value in an idea or connection or product, as well as the longer-term gathering together and reviewing of these moments as they become patterns of performance across time and space (cf. Lamont 2012; Latour 1986). In daily work the individuals responsible for managing open innovation often make rapid evaluative judgements about knowledge, individuals, and the opportunities and the processes that might be required to develop future value. Some of these moments of valuation are recursive and become increasingly institutionalised over time.

Evaluative practices may be clear and well documented, or may be opaque – quick, intuitive decision making that draws on tacit knowledge and experience. What is key here is that *valuation* (the practice of making something valuable to someone) and *evaluation* (the practice of assessing that value) are understood practically, as inseparable (Lamont 2012): to make a thing valuable to a new user, you need to equip them with the skills to make sense of that value: for example, helping a policy maker see how an unusual academic insight packaged up in a dense academic journal article might be brought to bear on a specific issue. Making these valuation and evaluative practices visible, and open to discussion and review, is a key part of the work of this open valuation framework.

We see these three key bundles of practices as likely to be generative of key insights when evaluating open innovation initiatives but recognise too that in the processes of inquiry that such evaluations perform, others may well be revealed as relevant and important to a specific initiative or stakeholder.

We present the Open Innovation Framework as a performative tool (cf. Palo, Mason and Roscoe, 2018), to help those engaging with the development and evaluation of open innovation platforms, and in securing continued investments in such initiatives develop an exploratory and reflexive approach to understanding how accountability can be developed bottom-up, from and through the activities of the collective and its multiple stakeholders.

We welcome feedback from, and engagement with, anyone who is considering using this framework. The authors can be reached by email through Lancaster University or via the website dedicated to our Open Valuation work: https://www.lancaster.ac.uk/open-valuation/

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