

# PERFORMANCE IMPROVEMENT FRAMEWORK

## Review of Callaghan Innovation

December 2016



# Lead Reviewers' Acknowledgement

I would like to thank the Callaghan Innovation Board, management and staff for the support they provided to me in undertaking this Performance Improvement Review (PIF). The agency Self-review was candid and perceptive, and the work force and leaders of Callaghan Innovation engaged with me in an open and energetic manner, exploring the opportunities and challenges facing Callaghan Innovation, its customers and the wider innovation ecosystem.

There is a great deal of community goodwill in Callaghan Innovation's success. Customers, partners and stakeholders gave generously to the review to support Callaghan Innovation to achieve its mission and be successful for New Zealand businesses and New Zealand Inc.

The officials from the Ministry for Business, Innovation and Employment (MBIE), the State Services Commission (SSC), The Treasury and the Department of the Prime Minister and Cabinet (DPMC) provided their reflections and insight about the performance challenge facing Callaghan Innovation. I was well briefed at the commencement of the PIF. The monitoring agencies and central agencies demonstrated commitment to the success of Callaghan Innovation.

Dame Patsy Reddy was unable to participate fully in this review as a result of illness and other public commitments. Her contribution as wise counsel, providing a sounding board, critiquing drafts and assisting with conversations with the Callaghan Innovation Board and Leadership team, with MBIE and central agencies and with Ministers was greatly appreciated.

Finally, I was fortunate to be supported by an experienced Performance Review Manager, Larry Fergusson, who brought his experience, enthusiasm and knowledge to the Review and contributed fully in its success.

## Conflicts of interest

Neither Dame Patsy nor I identified any actual or potential conflicts of interest relevant to our involvement in this Review.

**Published December 2016**

**ISBN 978-0-478-43467-5**

**Web address: [www.ssc.govt.nz/pif](http://www.ssc.govt.nz/pif)**

**Crown copyright ©**



This copyright work is licensed under the Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 International licence. In essence, you are free to copy and distribute the work (including in other media and formats) for non-commercial purposes, as long as you attribute the work to the Crown, do not adapt the work and abide by the other licence terms. To view a copy of this licence, visit <https://creativecommons.org/licenses/by-nc-nd/4.0/>. Attribution to the Crown should be in written form and not by reproduction of any such emblem, logo or Coat of Arms.

# Contents

- Agency’s Response.....2
- Four-year Excellence Horizon .....7
  - Environment .....7
  - Performance Challenge – Outcomes .....9
  - Performance Challenge – Agency.....9
  - What will success look like?.....15
- Central Agency Overview .....17
- Summary of Ratings .....18
- Agency Context.....20
- Results Section .....21
  - Part One: Delivery of Government Priorities.....21
  - Part Two: Delivery of Core Business .....23
- Organisational Management Section.....34
  - Part One: Leadership and Direction .....34
  - Part Two: Delivery for Customers and New Zealanders .....40
  - Part Three: Relationships .....46
  - Part Four: People Development.....49
  - Part Five: Financial and Resource Management.....54
- Appendix A.....58
- Appendix B.....60

## Agency's Response

1. At the time the Performance Improvement Framework (PIF) review took place, Callaghan Innovation had initiated an internal project, *Getting to Great*, which was focussed on reviewing how we operate and the value we can add to New Zealand's businesses in the high value manufacturing and services (HVMS) sector and New Zealand Inc. The *Getting to Great* process reviewed stakeholder and customer feedback and at the time of writing this response, the organisation is in the final stages of developing a new operating model that will drive effectiveness by pulling together the findings, putting the customer at the centre of how we work and taking a sector lens to New Zealand's High Value Manufacturing and Services (HVMS) businesses.
2. The Callaghan Innovation Board has been working with the Executive Leadership Team (ELT) to implement the new operating model and target the critical actions both the PIF review and our organisation identified, to enable us to excel as one of New Zealand's innovation leaders. Callaghan Innovation is not alone in its endeavour. We have many partners and stakeholders who we are working with in both the public and private sectors. By aligning and communicating our individual goals, collectively we will strengthen New Zealand's focus on the innovation ecosystem.
3. Callaghan Innovation operates on the edge: the edge of new discoveries, the edge of new ideas. Our environment is unique. We cannot entirely predict and plan for the future because our customers are creating the future, transforming the way we live and work, the way we think.
4. The world is not the same place that it was three and a half years ago when Callaghan Innovation was established. New Zealand's place in the world has moved too. Change has been rapid as technologies converge, creating new opportunities and constantly disrupting the status quo. This creates new ways of thinking, as we are all constantly challenged by the opportunities to marry seemingly unconnected sectors and technologies to create new products and services and build new and existing businesses.
5. It is a dynamic and invigorating environment to operate in and Callaghan Innovation, along with our partners, is up for meeting the challenge. We have recognised that we need to be working in a way that our purpose and direction are tightly defined and clearly articulated to customers, staff and stakeholders, but with an organisational model that allows and encourages us to respond in agile and flexible ways.
6. Our eyes are firmly focused on the future and the businesses we serve, we must plan for the unknown and be not just agile and open to change, but work with our partners to drive change through innovation. While we do not have a detailed view of what the future looks like, in many ways we are working with more knowledge than we have ever had before. Technological convergence means we have endless data on consumer thoughts, habits, interests and behaviour. We will use that to our advantage. We are only at the beginning of understanding how this extensive knowledge can help us match our innovations with the needs of our customers.
7. Callaghan Innovation's role as a facilitator and transformer of New Zealand's business led innovation is unique. In our first three and a half years of existence, we have seen a rate of change among the country, our customers and our potential customers that has caused us to rethink the way we operate. Our partners in NZ Inc have seen it too. If we are to lead the innovation agenda for New Zealand, we must ourselves operate innovatively.

8. Ideas and innovations are not linear and neither can we be. Our new model allows us to be flexible and responsive to meet the needs of our customers and to the opportunities they create. We will accelerate our pace. By doing so, we will achieve our mission of accelerating the commercialisation of innovation by New Zealand business.
9. Our new operating model is based on design principles; it can flex and change as determined by the needs of our customers and enable all staff to clearly articulate where their contribution adds the most value to our mission. It will also enable us to take full advantage of the strengths our government partners, such as MBIE and New Zealand Trade and Enterprise (NZTE), to help us reach our goals. The model and organisational design will enable us to develop and evolve the critical sectors we support.
10. To do this we need to:
  - deepen our understanding of our current and potential customers, the innovation process and markets
  - understand how we can change the game for New Zealand through the impact we can have on businesses, sectors and the economy
  - ensure that customers are at the heart of our business and have an operating model that is flexible and responsive to their needs while aligning to our strategy
  - engage our partners such as Universities and other tertiary providers, Crown Research Institutes (CRIs), NZTE, MBIE, other Crown agencies and Regional Economic Development agencies, to help us deliver our mission
  - take ourselves and our services to market in a highly cohesive, inclusive and relevant way ensuring our customers, including Maori and iwi can really understand what we do and have the knowledge to take full advantage of what we offer.

## **So we will**

### **Deepen our understanding of customers**

11. We will develop improved market analytics; customer segmentation and insight, with increased impact measurement and reporting to enable us to constantly improve and evolve our operations, and better enable us to work effectively with our partners.
12. Also important is growing and sustaining our expert staff and ensuring they are connected, aware and engaging in new trends and developments within New Zealand and internationally so that we truly understand innovation trends and how to leverage them. This requires us to continue with our technology systems and platforms refresh and ensure our new business critical systems, such as our customer relationship management system, are fully implemented.

### **Understand our impact**

13. We will improve the way we measure the impact we have on the businesses and sectors we support and how we feed this information back into our organisation and our partners so that we are constantly refining and improving our services and programmes. The framework we design to do this will provide detailed data and analytics to deliver insights for macro-economic, sector-based and individual firms and the layers in between.

## **Ensure customers are at the heart of our business**

14. We will embed a sector-based operating model which puts customers at the centre of our operations. Through this model we will offer an improved customer experience, drive customers to engage in increased Research and Development (R&D) and help develop a more connected innovation system.
15. Our customer driven, sector-based operating model will:
  - clarify our strategy and the business plans that sit beneath it to both our staff and our external partners
  - enable and encourage connected and cohesive cross-functional activity that will break down internal silos and create a 'one Callaghan' culture and delivery
  - increase organisational agility and flexibility so we are better at meeting current and future customers' needs – this will be informed by a deeper understanding of the sectors and innovation ecosystem, encourage design thinking and be agile and flexible to meet the unique needs of each customer
  - help us identify where we can seek the support of our NZ Inc partners to break down barriers and link us more effectively to serve our customers better.
16. Our services will be transformational and play a key role in driving the success of the HVMS sector. Our extensive connections will help link customers to other international and domestic R&D providers. Our customers will be delighted, recommend us and come back for more.

## **Engage our partners**

17. We will communicate openly and work effectively with our partners to ensure we deliver optimum results for our customers. This will include being very clear in our strategy, our leadership role in the innovation ecosystem, and our operating model in regard to the role partners play in the success of Callaghan Innovation.

## **Take ourselves to market**

18. We will tell the story of Callaghan Innovation, both our intent and our successes, to customers, potential customers, stakeholders and employees. Our narrative will be supported and articulated through the clear measurement and evaluation of our impact and the case studies we identify to bring that impact to life.

## **We will also:**

### **Develop an effective HVMS Innovation Quarter on the Gracefield site**

19. We will have crystallised a robust future focused plan for the redevelopment of the Gracefield Innovation Precinct and are working on a multiyear development plan that will clearly set out the Callaghan Innovation milestones for the project with funding secured. The Innovation Quarter will be a place where firms gather to work on innovation challenges, and it will be a critical component of the New Zealand innovation ecosystem. The Gracefield Innovation Quarter will earn the right to become a taonga of NZ Inc.
20. We have already launched Te Whare a Maui (our Maori Hub within the Quarter) and this will become even more valued by high tech Maori firms as a place to do business while they reach into our R&D capability. Other highly relevant clusters (such as biotech) of businesses, researchers, research partners and other product development capability will be forming and locating themselves at the Quarter, which will be developing as a vibrant hub of product innovation and development.

## **Provide relevant value-adding RTS services**

21. At its launch on February 1, 2013, Callaghan Innovation acquired the staff, facilities and real estate of Industrial Research Ltd (IRL) a Crown Research Institute. In August, 2013 Callaghan Innovation also acquired two-thirds ownership of a state of the art food pilot plant facility in Auckland known as The FoodBowl. Minority investments were subsequently made in food and beverage product development facilities in Hamilton (Food Waikato) and Christchurch (Food South). Collectively these acquisitions established a preliminary R&D footprint for Callaghan Innovation, providing a mix of scientific and technical expertise, some of which was well aligned with the R&D needs of HVMS businesses and some not so well aligned.
22. Since our inception, we have been working to cement a new direction for our R&D capability. We have separated out the commercial components of our original research capability, and with new leadership we are in the process of developing strategies to drive profitable growth from GlycoSyn and KiwiStar, and maximise the impact of Measurement Standards Laboratory while developing services in a way that meets legislative requirements of a national standards laboratory.
23. We have appointed a new Chief Technology Officer who commenced in July 2016 to increase the speed and velocity of our journey to reposition our R&D capability. This means improving delivering business focused technology and product development services, working more collaboratively within the wider science system and delighting paying customers to help grow the number and size of HMVS firms in New Zealand thereby, increasing business investment in R&D.

## **Leadership**

24. At the time of completing this response, the Board is in the process of recruiting a new Chief Executive. The outcome of the learnings from the *Getting to Great* process and the PIF review will underpin the future leadership style of the organisation. The new Chief Executive will be clearly mandated with building on this work in order to achieve our goals. With this in mind, this response encapsulates the high level “non-negotiable” future direction and response, but notes that the new CEO will have a key role in operationalising these areas of focus.
25. We are aware and focused on the importance of all staff ‘paddling the waka in the same direction.’ Leadership of the organisation is key. The Board and senior management will not only be working towards common goals, and be aligned, but it will be widely acknowledged by staff and external stakeholders that this is so. This approach will instil a sense of clear direction for staff who will be even better equipped and understand clearly how their work contributes to Callaghan Innovation’s strategy.
26. Our refreshed leadership will be tasked with mobilising our people and assets to work at pace in flexible and agile ways and ensure that the skills, capability and resources of Callaghan Innovation are marshalled and well aligned with the strategic direction and responsibilities of the organisation.

27. Our staff will live and breathe our values - About Business, Bold, Connected and Delivering Results – and drive improvements to our business processes. The net effect will ensure our customers are at the heart of how we work and organise ourselves, including the innovative ways we connect and collaborate with partners. By the end of 2018 our customers will be telling others that Callaghan Innovation has played a critical role in their innovation story, and is truly effective in leading New Zealand’s economic transformation to a high value, technology based economy. In particular:
- Callaghan Innovation will be delivering outstanding customer service and recognised for its ability to add value and assist New Zealand firms’ technological transformation
  - there will be more and bigger firms doing more R&D and being successful through technology – New Zealand will be well on the way to meeting the increased BERD (Business Expenditure on R&D) target
  - New Zealand’s innovation system will be enriched with connections both national and international and Callaghan Innovation will be at the centre of facilitating many of these relationships and collaborations
  - through Callaghan Innovation, the Maori economy will be growing and vibrant. Innovation through technology will be a key platform for Maori businesses
  - Callaghan Innovation will be recognised internationally as an exemplar for economic diversification through innovation and technology – we will have highly effective and engaged relationships with MBIE, NZTE and other key partners as part of our delivery to New Zealand businesses.
28. The Callaghan Innovation Board and ELT thank the PIF Reviewers for their insightful and helpful evaluation of our current situation and journey from inception to date. We also acknowledge and thank the Reviewers for their wisdom and foresight in relation to our direction for future travel. This has reinforced our own understanding of our strengths and areas of challenge and clarity about what we need to do to achieve our Four-year Excellence Horizon. We also understand that our success is dependent upon working effectively with our partners and stakeholders, and the central government agencies.

**Sue Suckling**

Chair

## Four-year Excellence Horizon

*In undertaking this Review the Lead Reviewers considered: “What is the contribution that New Zealand needs from Callaghan Innovation and, therefore, what is the performance challenge? If the agency is successful at meeting the future performance challenge, what would success look like in four years?”*

### Environment

29. Callaghan Innovation is a Crown Entity whose mission is to accelerate the commercialisation of innovation by New Zealand businesses through:
  - growing New Zealand’s innovation economy – the HVMS sector – by helping businesses to succeed through technology
  - contributing to increasing the diversity and value of exports from New Zealand.
30. As such it plays a critical facilitator role in the effort to achieve the Government’s Business Growth Agenda (BGA) goal of increasing exports to 40% of GDP by 2025 and BERD (business expenditure on research and development) to 1% of GDP by 2018.
31. As businesses invest more in research and development (R&D) activity they are more likely to grow in size, report improvements in sales, profitability and productivity and be more successful over all. Increased investment in R&D also drives economic growth: studies suggest that a 1% increase in business R&D expenditure results in a 0.04% increase in GDP.
32. By supporting New Zealand businesses to turn ideas into next-generation and market-ready products, processes and services, helps grow the size of New Zealand’s economy and increase its resilience – achieving a more diverse and balanced spread of contribution from multiple technology intensive sectors.
33. The context for Callaghan Innovation’s mission is a shift in importance to the global economy of Asia and the Pacific. This poses opportunities and challenges for New Zealand businesses to take advantage of rapidly growing markets for exports.
34. Other global megatrends impacting the future international business environment and the potential to commercialise innovation include:
  - global competition for talent
  - utilisation of big data analytics
  - technology-led disruption of traditional markets
  - heightened customer expectations and the impact of social media on customer preferences and opportunities
  - demand for environmentally sustainable practices
  - fast growing creative industries and their potential for exponential expansion
  - the shortening timeframe that other countries are achieving to go from Intellectual Property to Initial Public Offering – IP to IPO.
35. Technological change, in particular, is affecting the New Zealand business environment in a variety of ways. New products and breakthrough technologies could change parts of the New Zealand land-based economy. At the same time technologies developed locally are spawning entirely new high-tech industries. These industries service niche markets with little competition, and create high-wage jobs for New Zealanders.

36. As a small, advanced economy, New Zealand is strongly placed to utilise the knowledge economy. It ranks highly on access to the key infrastructure needed to share knowledge, such as education, academic achievement and communications. New Zealand's agile and dynamic culture also serves it well in world markets, particularly niche markets. New Zealand universities continue to rank highly in the world for the creation of intellectual property and New Zealand was recently listed as the 15<sup>th</sup> most innovative economy in the world (2015 Global Innovation Index).
37. Over the near to medium term New Zealand will need to utilize these strengths to grow and diversify the base of its economy, moving quickly from land-based exploitation to HVMS and technology. However, New Zealand will continue to be challenged by its relatively low number of large companies compared to other OECD countries, lacking the natural advantages and resilience that large companies have due to their scale, scope and ability to bear the risk inevitably associated with innovation and the commercialisation of new ideas.
38. To close the gaps and reduce the risks faced by small and medium-sized businesses as they grow and innovate, Callaghan Innovation will need to draw together the capabilities, experience and resources of a diverse range of partners, including NZTE, regional economic development agencies, incubators, accelerators, universities, CRIs, etc. The innovation ecosystem in New Zealand is a busy and complex arena that is difficult to navigate. Connecting the right firm to the right capability at the right stage of business development will continue to require expert knowledge of the many players in the system, as well as the market, the firm's circumstances and current and potential customers.
39. Finally, Callaghan Innovation operates in a complex policy environment, involving many government departments. As Callaghan Innovation's environment shifts, it will need to evolve its mission, strategy and operating model. To do so, it will need to be influential with the Government's policy advisors so that the lessons learnt from interactions with its customers and stakeholders and their experience informs the policy framework in which Callaghan Innovation operates. Those advisors, include:
  - the Ministry of Foreign Affairs and Trade (MFAT), which has overall leadership of the export goal
  - MBIE, which has responsibility for policy advice on the science and innovation system, as well as acting as the monitoring agency for Callaghan Innovation and the CRIs
  - the Treasury, a critical policy and oversight agency in the system
  - the Tertiary Education Commission (TEC) and the Ministry of Education, that have a policy and oversight responsibility for the universities.
40. There is no one else in the New Zealand innovation system that can play Callaghan Innovation's facilitation role. This is unlikely to change in the future. Timely and effective collaboration will become increasingly important if New Zealand firms are to capture the rewards from the commercialisation of innovation.

## Performance Challenge – Outcomes

41. Callaghan Innovation has existed for three years and its performance challenge must be viewed in this light. Having been formed from a partial start-up and partial merger, it is not surprising that the formative period has been focused on institution building – clarifying its mission, developing its strategy and building various layers of its operating model. In this respect much has been achieved and there are positive signs of the impact this is having for many of its customers.
42. Looking forward, and in the context of the external environment it is likely to face, its current performance challenge is to accelerate its pace of execution, delivering on its full mission and demonstrating impact. Callaghan Innovation’s ability to accelerate its impact is dependent on it meeting the following six organisational performance challenges:
  - deepening its understanding of its customer base, the innovation process and markets
  - clarifying how Callaghan Innovation will have impact – its intervention logic and impact measures
  - aligning all layers of its operating model to its strategy
  - enlisting its partners in its mission and leading the innovation system
  - building a portfolio of customers through time to meet its full mission
  - delivering a ‘One-Callaghan, Go to Market’ strategy.
43. Each of these challenges is discussed more fully in the sections below.

## Performance Challenge – Agency

### ***Purpose and Business Strategy***

44. Callaghan Innovation’s purpose is to accelerate the commercialisation of innovation by businesses in New Zealand. Callaghan Innovation grows New Zealand’s innovation economy by helping businesses to succeed through technology. This will occur through more HVMS businesses successfully developing new and improved products, processes and services. Callaghan Innovation’s strategy (as described in its Statement of Intent) is focused on:

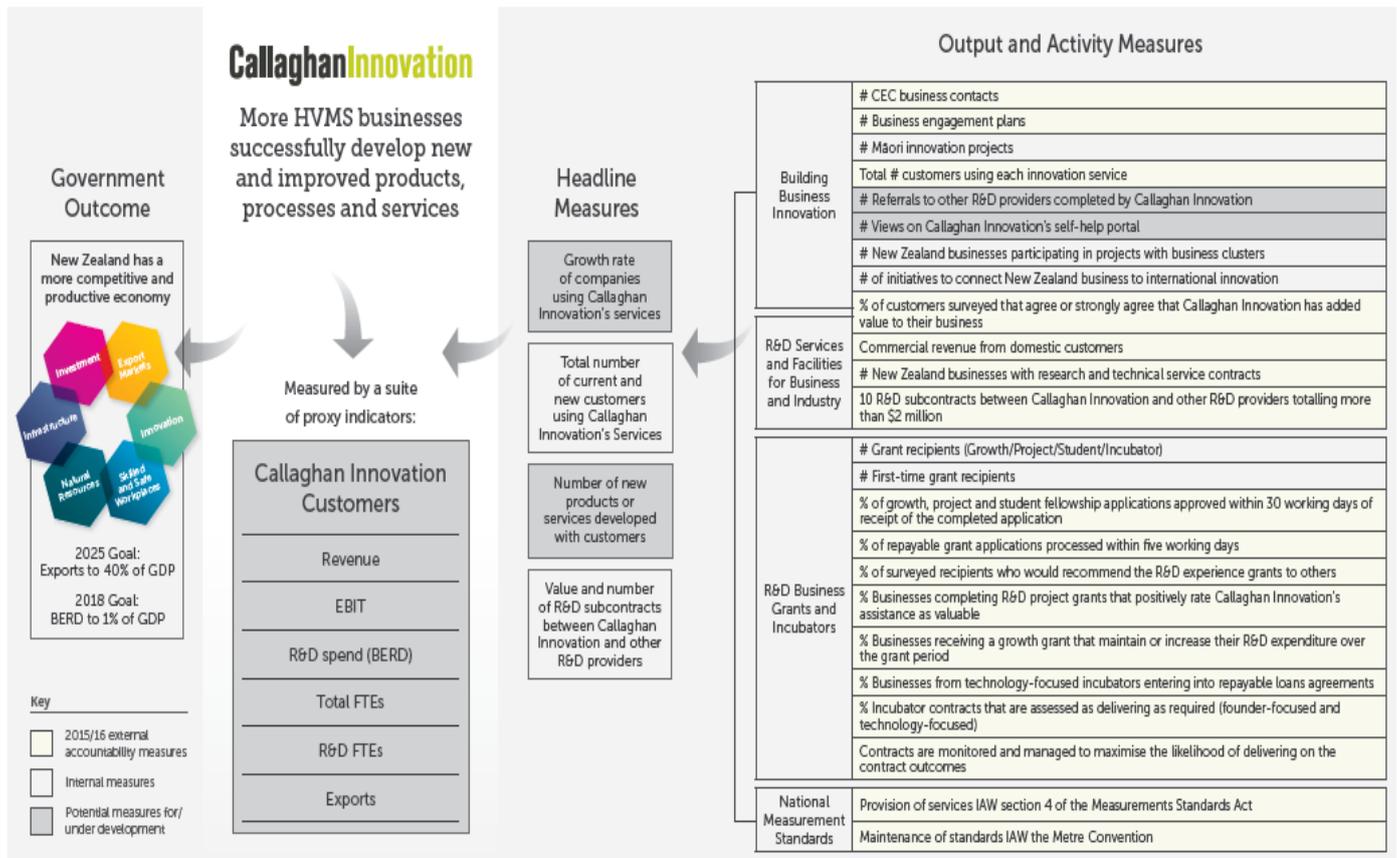
- i. Delivering innovation services to businesses*

Callaghan Innovation provides services that meet a diverse range of needs depending on where customers are in their innovation journey – from supporting start-ups to assisting the most experienced R&D performers. Callaghan Innovation aims to set businesses on the fastest and most effective pathways to achieve growth and success through technology. The service mix ranges from self-help and on-demand solutions to deep, customised engagement for those businesses that have unique technical and commercial requirements.

- ii. Building New Zealand’s innovation capability*

Business success depends on a strong innovation system and Callaghan Innovation plays a critical role in building and strengthening New Zealand’s innovation capability. Callaghan Innovation uses its knowledge and understanding of business innovation needs to drive better integration across the component parts of the system; to improve coordination and networking amongst the many players, in both the public and private sectors; and to identify and understand the gaps and opportunities where key players, including Callaghan Innovation, can add the most value.

45. Callaghan Innovation's Performance Measurement framework is shown in the following diagram (sourced from its current *Statement of Performance Expectations*).



46. During the PIF Review I found that virtually everyone I spoke to internally and externally knew and were committed to and motivated by the Callaghan Innovation purpose. Most external stakeholders said the Callaghan Innovation mission was vital to New Zealand's economic success and there was no one else in the innovation ecosystem that could play its role.
47. There was general recognition that since its inception Callaghan Innovation had struggled to clarify its business strategy and the activities that sit beneath it and that this was still a work in progress. Most recently, and perhaps most importantly, Callaghan Innovation has resolved at a high level where Research and Technical Services (RTS) sits in its offering and has begun the process of giving this greater definition.
48. The administration of grants has also been improved. After much debate about what functions should stay with Callaghan Innovation, this has now been settled, though there will be a strong imperative for Callaghan Innovation to continue to evolve its capability and focus as its customers and their needs change.
49. A number of points are notable. Having not resolved the remit of Callaghan Innovation earlier, it has proven difficult to build a 'One-Callaghan' culture and gain the potential cumulative impact that comes through this. I comment further on this under Implementation below. This should now be a priority. There is still uncertainty internally and externally about the role played by different parts of Callaghan Innovation and how they contribute to its wider mission.

50. There is also considerable debate about whether Callaghan Innovation's current business strategy is able to deliver fully on its mission. A number of partners believe that Callaghan Innovation's services miss some vital parts of its potential customer base and indeed if these segments remain underserved that New Zealand firms will fail to reach the scale required to lift New Zealand's R&D and export potential. I comment further on this under Customers below.
51. To resolve this debate, Callaghan Innovation needs to do far more market analytics and customer segmentation to ensure a robust intervention logic underpins its strategy and priorities. Until this intervention logic is developed it will continue to be difficult to develop adequate impact measures and the level of business planning necessary to 'make the ship go faster'. I am encouraged by the work currently under way as part of *Getting to Great* to better understand the Callaghan Innovation intervention logic. Internally staff see tremendous value in this work and believe it will help each person get a much clearer line of sight between action taken and impact achieved.
52. External partners also commented on the need to better define the Callaghan Innovation business strategy and for Callaghan Innovation to engage them in the development of its intervention logic, given its dependence on partners to achieve its mission. The best way for Callaghan Innovation to enlist its partners to its mission and lead the system is to involve them early in the next stage of clarifying intervention logic, impact measures and therefore business and system priorities.
53. As discussed above, in terms of targets and measures, Callaghan Innovation has defined its performance measures. Nevertheless, it has found it difficult to turn its high-level performance measures into a meaningful performance dashboard for its Board and stakeholders. Some encouraging work is being done with the Productivity Commission and the Office of the Prime Minister's Chief Science Advisor that may assist with this, particularly when set alongside the work Callaghan Innovation is doing on intervention logic.
54. Bringing these threads together into a coherent performance management system is vital as this would then allow Callaghan Innovation to use portfolio management disciplines across its activities and with its partners to accelerate pace and focus effort on those things that will make the greatest impact through time. 90-day KPI cycles could then be utilised to gain momentum, getting into a rhythm of delivering that deepens and lengthens the scope and scale of its impact.

### ***Operating Model***

55. To understand the current operating model at Callaghan Innovation, it is important to understand the impact the formation of Callaghan Innovation has had on its current state. Being born of a merger, but also a start-up, it is not surprising that the Callaghan Innovation operating model is still in flux, somewhere between a traditional hierarchical, process-oriented operating model and a customer-led, professional services operating model. As a consequence, different layers of the Callaghan Innovation operating model are at different stages of evolution. In addition, different areas of the business use different operating models, most often demonstrated by the use of different operating principles to manage the business and to interact with customers and partners.

56. The effect of this is that staff, partners and customers often experience conflicting messages about how Callaghan Innovation does business. This manifests itself in a range of ways, for example:
- the Māori economy team, which has a clear understanding of its target customers, is widely seen to operate in a customer-led, participatory style, engaging partners and customers early, co-creating strategy and aligning tactics, culture, priorities, and agreed outcomes (the effectiveness of this approach is referred to in Government Priority 1 – Business Growth Agenda)
  - some other business groups are reportedly rules and process driven, where risk aversion takes priority over customer outcomes
  - some leaders engage staff early in the development of strategy, priorities and tactics, while others communicate decisions without rationale once they have been made by others more senior in the business
  - customers often report that once they find the ‘right person’ at Callaghan Innovation, it is possible to have a positive experience and navigate the system to get a result, but that sometimes only happens after several false starts
  - partners are not engaged early in the development of strategy, especially around customer engagement and services, portfolio strategy, prioritisation, and impact measures and tactics
  - external stakeholders and partners do not see Callaghan Innovation consistently, strongly and visibly leading the Innovation ecosystem.
57. While these conflicting messages are a significant issue, the issue can be readily addressed. The Māori economy team has begun to implement some of the changes required. More generally, explicitly agreeing and implementing an operating model that best supports the Callaghan Innovation strategy and mission would be an easy win for the agency.
58. At the moment, Callaghan Innovation is half way between two diametrically opposed operating models, yet one is clearly more appropriate to its strategy and mission. Each focus group I engaged in could readily communicate that Callaghan Innovation’s internal operating model needed to reflect the very things it was trying to create and support externally – collaboration, agility, innovation, connectedness, focus on delivery and results, etc. Callaghan Innovation’s current operating model was perceived to be more closely aligned to a traditional hierarchical leadership model.
59. Resolving ambiguity about its operating model is the fundamentally important leadership opportunity for Callaghan Innovation. It must decide to align its leadership approach, internally and externally, to a customer-driven, professional service firm philosophy of operating. By its nature this should be a collaborative and participatory approach, engaging early with staff, partners and customers to co-create strategy and tactics. If it does, its staff, partners and customers will be able to quickly support and engage with the Callaghan Innovation mission. This is the single, most important message I heard during this PIF Review.

## **Customers**

60. Callaghan Innovation's primary focus is on businesses in the HVMS sector. These businesses are export and R&D intensive and are more likely to innovate than other sectors. A key part of Callaghan Innovation's role is supporting Māori businesses to embrace innovation as a catalyst for unlocking the potential of the Māori economic asset base.
61. To focus its effort where it believes it can add the most value, Callaghan Innovation applies a number of principles that help it to segment its customer base, as follows:
  - Ambitious to grow* – Businesses that have ambitions to significantly increase their share of existing markets (domestically and internationally) or create new markets through innovation.
  - Technology driven* – Businesses that want to grow through technology, particularly those businesses that want to disrupt markets through their technology, rather than merely keep up with their competitors.
62. It is encouraging to see Callaghan Innovation targeting its effort to these key attributes. Looking forward, Callaghan Innovation recognises that this is really just the precursor to segmenting its current and potential customer base to ensure it develops a portfolio of customers across a range of attributes and at different stages of lifecycle, scale and scope, to ensure it helps achieve the BGA goals. Taking this next step, in conjunction with its partners, closely led by customer needs, is critical to Callaghan Innovation's success.

## **Implementation**

63. A key aspect of the Callaghan Innovation performance challenge at this point in its development is to accelerate its pace of execution, delivering on its full mission. Callaghan Innovation's ability to accelerate its impact is dependent on it meeting the six organisational outcome-related performance challenges noted above.
64. While I comment on many of these components elsewhere in this report, the concept of '*One-Callaghan*' requires explanation. Throughout this Review I was told by staff, Callaghan Innovation leaders, external partners and stakeholders and some customers that Callaghan Innovation continues to be an organisation of silos and that its culture reflects this.
65. In some respects this should not be a surprise given the 'Chinese walls' that were put up between Accelerator Services and RTS, to avoid perceptions that Callaghan Innovation would favour its own technology services over those of others. In the future, Callaghan Innovation must be able to demonstrate and differentiate the RTS value proposition by ensuring it fills otherwise unmet needs, providing research and development capability closely aligned with its customers' needs and delivered at a pace not possible in other environments.
66. The RTS of the future, positioned to meet unmet market needs, must be fully aligned with, and brought alongside, the other offerings in the innovation ecosystem and within Callaghan Innovation.
67. Although most staff indicated silos persist, people across the organisation described the culture of Callaghan Innovation in consistent terms: bold, ambitious for New Zealand, committed, and empowered to make things happen. Paradoxically, they also noted behaviours that were patch protective and siloed.

68. In addition to attracting and retaining a highly skilled and experienced workforce, the organisation describes how it seeks to build a highly engaged and energized workforce that is:
- *About Business* – Helping businesses to succeed through technology is our top priority and reason to exist.
  - *Bold* – We are forward thinkers, ahead of the game, trying new ideas and taking risks.
  - *Connected* – We are professionals working together within our organisation and with partners.
  - *Delivering results* – We are resourceful and committed to achieving tangible outcomes.
69. These attributes resonate well with people internally and externally. However, this will be difficult to deliver if Callaghan Innovation is not well connected and aligned internally, as well as externally. During the Review staff talked about the need for Callaghan Innovation to walk its talk – by getting connected internally through new ways of working, cross-functional teams, use of matrix management and simply getting to know how other parts of the organisation contribute to the Callaghan Innovation mission. Building a ‘*One-Callaghan*’ culture is essential to Callaghan Innovation meeting its current performance challenge. As noted already Callaghan Innovation needs to commit to a collaborative and participatory leadership style that involves early engagement with staff, partners and customers to co-create strategy and tactics.
70. The focus on ‘*One-Callaghan*’ cannot come at the expense of its partnership with others and its role connecting business to other parts of the innovation ecosystem. The proper way forward is to map all of the current capability in the system and ensure all elements are well connected and visible to customers and players in the system. Together with clear intervention logic and a deep understanding of customers, a ‘*Go to Market*’ strategy will come together more readily than has been achieved to date.
71. We have discussed earlier the criticality of better market analytics to understanding what drives value for Callaghan Innovation customers and management performance metrics that captures how well Callaghan Innovation provides services to customers and to New Zealand. Bringing these threads together into a coherent performance management system is vital as this would then allow Callaghan Innovation to use portfolio management disciplines across its activities and with its partners to accelerate pace and focus effort on those things that will make the greatest impact through time.
72. The use of 90-day KPI cycles would create momentum, getting into a rhythm of delivery that deepens and lengthens the scope and scale of its impact. These management disciplines are essential to accelerating pace and impact. It also largely provides the two ‘tight’ elements in a ‘tight-loose-tight’ management system. This is likely to be the appropriate accountability and management model for an organisation, such as Callaghan Innovation. This is discussed in greater detail in the section on Leadership, Direction and Delivery below.

## **Organisational Agility**

73. Organisational agility is a critical success factor when an organisation is exposed to a business environment that is competitive, rapidly changing, and potentially subject to disruptive technologies. The business environment that Callaghan Innovation, its partners and customers operates in is subject to all of these. Just as Callaghan Innovation advises its customers of the need to be flexible in response to market changes, nimble in response to customer demand, and fast to move from IP to IPO, so must it live by these traits. It can only do this through a deep understanding of its current and potential customers, markets and other players in the innovation ecosystem.
74. This in turn requires an internal capability with a range of experience and expertise that remains relevant as markets and circumstances evolve. It also means that people with ideas matter but so do people who can take big ideas and drive them to outcomes, through focused, persistent and disciplined actions. In the Callaghan Innovation case this is likely to require it to use strong management and enterprise leadership tools and techniques to deliver on its mission. Its reliance on partners to achieve its mission means it must also be influential in the choices its partners make.
75. An agile Callaghan Innovation requires alignment and agility in its partners as well. Callaghan Innovation needs to be deliberate and visible in the way it supports that alignment and agility across the innovation ecosystem. Again its own operating model must adopt this approach, if it is to enlist partners to its mission in a manner that retains responsiveness to market changes and customer needs.

## **What will success look like?**

76. In four years' time, Callaghan Innovation's success will reflect a step improvement in the uptake of R&D and technology led innovation amongst New Zealand firms. We will see small firms growing through innovation to become mid-size firms and start to see medium-sized firms embrace R&D and technical innovation to drive to scale and scope. Callaghan Innovation will be connecting firms with the right assistance and support over the whole value chain and across a firm's lifecycle.
77. We will see New Zealand firms creating new products and services, many with export potential. Firms will know where to go to get the help they need to grow, without having to move offshore. Callaghan Innovation's development of the SuperShed at Gracefield will have been successful in attracting cornerstone companies and small and medium-sized firms will be queuing up to partner with Callaghan Innovation, NZTE, CRIs, universities and other private sector businesses. The Māori Innovation Hub will have underpinned the rapid uptake of R&D and technological innovation amongst Māori owned business. As a consequence the Māori economy will be the fastest growing sector in New Zealand.
78. Callaghan Innovation will have done this through its deep understanding of what drives innovation and the uptake of R&D and through its ability to de-risk these activities for firms at critical stages of their lifecycle. Callaghan Innovation, with its partners, will have mapped the innovation ecosystem in New Zealand, identified and addressed market gaps, clarified system intervention logic and built market intelligence feedback loops.

79. Everyone in Callaghan Innovation, its partners and customers will know how Callaghan Innovation does business. The '*One-Callaghan*' culture will be embedded and a simply articulated business strategy supported by impact measures will link short-term priorities to medium term impacts and outcomes. Callaghan Innovation will have successfully used sector game plans and 90-day KPI cycles to gain momentum. The Callaghan Innovation '*Go to Market*' strategy will be customer rather than process driven and interactions will be based on strategic alliances rather than being transactional in nature.
80. Callaghan Innovation's system and collaborative and participatory enterprise leadership style and every layer of its operating model will be aligned to a customer-driven, professional service firm operating model allowing it to gain pace and accelerate delivery of outcomes through its partners and with its customers. Callaghan Innovation will involve its people, customers and partners early in the co-creation of its strategy and tactics. All parts of Callaghan Innovation will be continuing to evolve in response to a widening customer base, market intelligence and changing market demand. Callaghan Innovation people will reflect the private sector capability it seeks to underpin and inspire.
81. Callaghan Innovation will be a pivotal business development force, knowing how to access the specialist expertise at universities, CRIs, NZTE and other parts of the innovation ecosystem. It will enlist and motivate these players to put up their best capability to match commercial needs. Callaghan Innovation will be a centre of excellence on how to grow successful small to medium, and medium to large, companies.

**Dame Paula Rebstock**

Lead Reviewer

## Central Agency Overview

82. Callaghan Innovation was established in 2013 to accelerate the commercialisation of innovation by businesses in New Zealand, supporting the Government's goal of building a more effective and productive economy.
83. In 2015, Callaghan Innovation undertook a PIF self-review to assess how fit-for-purpose it was to deliver against this mission. Priority areas for improvement were selected including improving the customer interface, better delivery of government priorities and improving internal leadership. Following this, the Board has driven *Getting to Great*, a programme of work to progress these priority areas.
84. This Review acknowledges the work already underway and highlights some important key points. My central agency colleagues and I support the findings of the Review, and note the positive steps already taken and currently under way to address the challenges identified.
85. The Lead Reviewers noted that Callaghan Innovation had only existed for three years and its challenges should be viewed in this light. There was a general recognition of the need to clarify Callaghan Innovation's business strategy and supporting activities, to ensure a customer centric approach across Callaghan Innovation's products and services. This is the most critical task for Callaghan Innovation at this time.
86. I note that MBIE, the Treasury and Callaghan Innovation have agreed to work together to develop a clear evaluation programme to define and measure impacts. Desired impacts need to drive Callaghan Innovation's priorities and operating model. Achievements from grants and services need to be clearly identified to demonstrate the value to New Zealand from these investments.
87. Callaghan Innovation is in the process of appointing a new CE and there has been change in both the Board and senior management. The SSC, MBIE and other central agency colleagues are ready to assist with the induction of the CE and others as appropriate and to assist them to develop networks and relationships across the system.
88. Finally, the Lead Reviewers noted that Callaghan Innovation could be a pivotal business development force and the *Getting to Great* programme represents a cultural shift in putting customers at the heart of what they do. MBIE will support Callaghan Innovation to plan and sequence the forward change programme to ensure transition to becoming the one- stop- shop for business innovation services is as smooth as possible. Using improved customer insights to deliver seamless services and better outcomes for business will support Callaghan Innovation's ongoing participation in and contribution to the Government's *Better for Business* programme (BPS Result 9).
89. Colleagues from DPMC, the Treasury and MBIE have participated in this Review from the outset and are committed to supporting Callaghan Innovation to implement its Response as indicated above.

### **Peter Hughes**

State Services Commissioner

## Summary of Ratings

These ratings reflect the agency's current capability to deliver on the Performance Challenge described in the Four-year Excellence Horizon.

### Results

Government Priorities	Rating
Business Growth Agenda	

Core Business	Rating (Value to Customers and New Zealanders)	Rating (Increased Value Over Time)
Delivering Innovation services to businesses		
Building New Zealand's innovation capability		
Administration of Innovation Grants		

### Organisational Management

Leadership and Direction	Rating
Purpose, Vision and Strategy	
Leadership and Governance	
Values, Behaviour and Culture	
Review	
Delivery for Customers and New Zealanders	Rating
Customers	
Operating Model	
Collaboration and Partnerships	
Experience of the Public	

Relationships	Rating
Engagement with Ministers	
Sector Contribution	
People Development	Rating
Leadership and Workforce Development	
Management of People Performance	
Engagement with Staff	
Financial and Resource Management	Rating
Asset Management	
Information Management	
Financial Management	
Risk Management	

## Rating System

Rating	Judgement	What it means
	<b>Strong (Excellent)</b>	<b>Best practice/excellent</b> <ul style="list-style-type: none"> <li>▶ High level of capability and sustained and consistently high levels of performance</li> <li>▶ Systems in place to monitor and build capability to meet future demands</li> <li>▶ Organisational learning and external benchmarking used to continuously evaluate and improve performance.</li> </ul>
	<b>Well placed</b>	<b>Capable</b> <ul style="list-style-type: none"> <li>▶ Delivering to expectations with examples of high levels of performance</li> <li>▶ Evidence of attention given to assessing future demands and capability needs</li> <li>▶ Comprehensive and consistently good organisational practices and systems in place to support effective management.</li> </ul>
	<b>Needing development</b>	<b>Developing</b> <ul style="list-style-type: none"> <li>▶ Adequate current performance – concerns about future performance</li> <li>▶ Beginning to focus on processes, repeatability, evaluation and improvement and management beyond and across units</li> <li>▶ Areas of underperformance or lack of capability are recognised by the agency</li> <li>▶ Strategies or action plans to lift performance or capability, or remedy deficiencies are in place and being implemented.</li> </ul>
	<b>Weak</b>	<b>Unaware or limited capability</b> <ul style="list-style-type: none"> <li>▶ Significant area(s) of critical weakness or concern in terms of delivery and/or capability</li> <li>▶ Management focuses on tasks and actions rather than results and impacts</li> <li>▶ Agency has limited or no awareness of critical weaknesses or concerns</li> <li>▶ Strategies or plans to respond to areas of weakness are either not in place or not likely to have sufficient impact.</li> </ul>
	<b>Unable to rate/not rated</b>	<b>There is either:</b> <ul style="list-style-type: none"> <li>▶ no evidence upon which a judgement can be made; or</li> <li>▶ the evidence available does not allow a credible judgement to be made.</li> </ul>

Note: There have been four significant upgrades to the PIF Agency Model since it was implemented in 2009. The first was the inclusion of the Four-year Excellence Horizon in October 2011. The second was the Strategic Financial Management upgrade in December 2012. The third was the Better Public Services upgrade in January 2014. The most recent is the Customer refresh. These upgrades affect comparability with previous PIF reports.

## Agency Context

90. Callaghan Innovation was established on 1 February 2013 under the Callaghan Innovation Act 2012 as a Crown Agent under the Crown Entities Act 2004. Its mission is to accelerate the commercialisation of innovation by businesses in New Zealand, supporting the Government's goal of building a more effective and productive economy.
91. Callaghan Innovation's role is to help HVMS businesses develop and use cutting-edge technology to create competitive international market advantage. Callaghan Innovation works closely with NZTE to contribute to the Government's overall effort to drive the growth of more, bigger, smarter businesses, creating higher-wage jobs for New Zealanders and greater export receipts.
92. Callaghan Innovation is an amalgam of several old and new functions. Upon establishment, Callaghan Innovation absorbed the functions of Industrial Research Limited (IRL), the Ministry of Business, Innovation & Employment (MBIE) business investment team and a 67% shareholding in the Auckland FoodBowl. It has since invested in FoodWaikato and FoodSouth. It employs 386 full time equivalent staff and has offices in Wellington, Auckland and Christchurch.
93. Callaghan Innovation has an operational revenue budget of approximately \$90 million — made up of \$64.5 million in Crown funding, \$17 million in commercial revenue and \$3 million in other revenue. For the 2015/16 financial year, it is required to generate at least \$17.2 million in commercial revenue from R&D projects. Callaghan Innovation also administers a number of grants programmes on behalf of the Crown to the value of approximately \$135 million (2015/16 financial year).
94. Callaghan Innovation is governed by a Board appointed by the Minister of Science and Innovation.
95. MBIE undertakes the monitoring and evaluation role for the agency. As a delivery agency, Callaghan Innovation operates within the policy framework established by the Government on the basis of advice provided by the policy agencies (in particular MBIE and the Treasury).

# Results Section

## Part One: Delivery of Government Priorities

96. This section reviews the agency’s ability to deliver on its strategic priorities agreed with the Government. While the questions guide the Lead Reviewers to retrospective and current performance, the final judgements and ratings are necessarily informed by scope and scale of the performance challenge.

<b>Government priority 1: Business Growth Agenda</b>
Performance Rating: Needing development 

97. Callaghan Innovation contributes directly to the Government’s priority to build a more productive and competitive economy. To achieve this, New Zealand must boost its rates of technological innovation and business research. The Government’s goal is to increase BERD to 1% of GDP by 2018 from the current rate of approximately 0.58% of GDP. Achieving this target will require BERD to grow around 15% a year.

98. The response to this goal will also assist the Government’s export growth goal – to increase exports to 40% of GDP by 2025. Callaghan Innovation will need to work closely with NZTE to do so.

99. Callaghan Innovation’s current Ministerial Letter of Expectations refers to the need for:
- a strategic plan with NZTE on how they will work together to show the line of sight for business from growth to export – this may include joint strategies, and potentially shared mechanisms, for managing mutual clients
  - customer-facing services that are better coordinated across RTS and Accelerator Services to provide a client-centric experience for small and medium businesses
  - a stronger regional footprint to encourage innovation by regional firms and better utilise the regional business partners
  - the establishment of the regional research institutes that are connected to the innovation system (working with MBIE as required).

100. Callaghan Innovation’s core businesses are directly targeted at the achievement of this goal in the HVMS by:
- providing grant funding to add to and accelerate the investments that businesses make in R&D (Core Business 3)
  - delivering innovation services to businesses (Core Business 1)
  - building the innovative capability of NZ businesses (Core Business 2).

101. To measure progress towards the government’s goal Callaghan Innovation will develop (Getting to Great work stream) measures of Customer: revenue, EBIT, R&D spend, total FTEs and R&D FTEs and exports.

102. *Statistics New Zealand 2014 Research and Development Survey* indicates that:
- BERD increased by \$53 million since 2012, to reach \$1,246m in 2014
  - Computer Services increased \$90 million since 2012, contributing a quarter of BERD
  - total expenditure on R&D increased to \$2,685 million in 2014
  - half of all businesses expect to increase their R&D activity in 2015

- BERD fell from 0.57% of GDP in 2012 to 0.54% of GDP in 2014 (compared to a 1% of GDP target by 2018).
103. While absolute improvements have occurred, on a relative basis this has been insufficient to grow the overall percentage. Clearly much more concerted effort is required to meet the current government goal. This underscores the importance of systematically understanding the intervention logic, identifying and addressing market failure, and mitigating risk from innovation activities across the innovation lifecycle of firms of various scale and scope.
  104. Through participation in the Investment Attraction Taskforce, Callaghan Innovation also contributes to Government's work to attract more international investment into New Zealand, particularly R&D funded by multinational corporations.
  105. While it is evident that the things that Callaghan Innovation is doing are having an effect for individual firms and even clusters of firms (for example see comments on work undertaken in the Māori economy below) it is not yet as impactful as it could be. Callaghan Innovation does not have hard medium-term goals that are based on a good understanding of the opportunities for increased innovation by its current and potential clients that enable it to align its resources (including those of its partners and stakeholders) to the efforts that will produce the greatest impact.
  106. Together with NZTE, Callaghan Innovation plays an important role in developing the innovative capability of New Zealand firms. It is apparent that the co-operation between Callaghan Innovation and NZTE (and other partners) is improving but many stakeholders identified that Callaghan Innovation needed to up its game if it is to become an equal partner to NZTE. A joint approach to shared customers should be the goal.
  107. Delivering on the Māori Economic Development Strategy (He kai kei aku ringa) is an integral part of the BGA. Māori businesses – whether owned or managed by Māori – are an essential and fast-growing part of the New Zealand economy. Callaghan Innovation is actively supporting the needs of Māori businesses to grow and be competitive in the global economy.
  108. Internally, the Māori Economy Team acts as an integrator of Callaghan Innovation's services for Māori businesses. Its members have been seconded to other teams and members of other teams have been seconded to them. In this way its impact is leveraged by ensuring:
    - the Team's staff are able to make connections, in the interests of customers, from across Callaghan Innovation and its partners
    - staff from other parts of the agency understand what the Māori Economy Team is attempting to achieve and how their part of the organisation can contribute to that growth.
  109. Externally, a collaborative cluster of like interests has been created to support increased innovation and growth in Māori firms. Opportunities have been brokered (in New Zealand and off-shore) for groups of Māori entrepreneurs and potential entrepreneurs to learn about the latest technology developments, lift their appetite for innovation, and build connections and partnerships.

110. These initiatives have seen a significant leap in demand by Māori for Callaghan Innovation services in other areas of expertise such as programmes, grants, research services, engagement with Business Innovation Advisors (BIAs) and National Technology Network (NTN) managers, and participation in technology delegations.
111. An example of the impact of this effort is the establishment of a collaborative berry production, processing and marketing venture involving some 30 Maori entrepreneurs based on new berry varieties belonging to Plant and Food CRI.
112. To be 'well placed ' for its contributions to the *Government Priority: Business Growth Agenda* Callaghan Innovation will need to:
- identify hard medium-term goals that will enable it to make good decisions about where to target its resources to best effect supporting both prioritisation, refinement of its product offerings as a package and the alignment of its staff and partners
  - develop its forecasting ability to identify what its customers (current and future) are likely to need and to work with its partners to identify how those needs will be met
  - identify and put in place new ways of working (internally and with its partners) that will enable it to respond effectively to the evolving needs of its customers .

## Part Two: Delivery of Core Business

113. This section reviews how well the agency delivers value to customers and New Zealanders and how well it demonstrates increased value over time. While the questions guide the Lead Reviewers to retrospective and current performance, the final judgements and ratings are necessarily informed by the scope and scale of the performance challenge.
114. Callaghan Innovation's Outputs include outputs relating to the national measurements standards and its operations include the National Measurement Laboratory. In so far as the laboratory provides services to support innovation in businesses its activities are covered in Core Business 1. Except to that extent I have not considered its other functions.

<b>Core business 1: Delivering Innovation services to businesses</b>	
Performance Rating (Value to Customers and New Zealanders):	Needing development 
Performance Rating (Increased Value Over Time):	Needing development 

115. Callaghan Innovation's RTS provides:
- research and development services to New Zealand businesses to develop new/improved products and processes
  - expertise in physics, chemistry and maths, agritech, biotech, therapeutics, digital tech, food and beverage manufacturing, material tech, power and energy, specialised manufacturing and Māori industry
  - international sales (products and services).
116. The services provided are broadly aligned with six of the seven NTN's (referred to under Core Business 2) and are :
- Advanced materials
  - Sensing and Automation
  - Integrated Bioactive Technologies

- GlycoSyn
- Manufacturing and Design
- Measurements Standards Laboratory
- Information and Communications Technologies (ICT).

117. Services are currently provided from Gracefield (Wellington), with satellite facilities at Auckland and Christchurch.

118. The RTS Budget for 2015/16 is \$45.9 million of which some \$17 million is commercial revenue. Commercial revenue is generated domestically through the provision of services to businesses either directly or as subcontractors to other entities providing services to business (approx. \$8 million) and the sale of services and products internationally (approx. \$10 million).

119. These services include two subsidiary companies:

- GlcoSyn – has been operating internationally for nearly a decade delivering development and manufacturing services involving active pharmaceutical ingredients and exporting a range of high-quality speciality chemicals and natural products
- KiwiStar – designs and manufactures optics and their mechanical housings, and assembles and provides precision alignment services for optical systems.

120. The performance measures for 2015/16 are:

Measure	Performance 2014/15
10 R&D subcontracts between Callaghan Innovation and other R&D providers totalling more than \$2 million	New measure
150 research and technical service contracts with New Zealand businesses	Established baseline (actual 180)
\$7.8 million commercial revenue from domestic customers	New measure

121. Parts of RTS are seen as responsive, practical problem solvers. However, the facilities from which they operate were ‘inherited’ from IRL and are dated and not well maintained.

122. Decisions have now been taken about the future of RTS. Callaghan Innovation will create a world-class product development facility (SuperShed) at Gracefield (with a decision yet to be taken about its presence in Auckland). Its vision is for:

- a world-renowned and unique national centre for product development services where businesses can access the services, support and expertise they need to make their ideas ready to sell
- a team of scientists, engineers, technical, machinists designers and innovators working in state-of-the-art laboratories, workshops and pilot plants
- project teams that bring together the people and skills required to take ideas from concept to product (including access to national and global networks)
- the development of the Gracefield Innovation Quarter – a national innovation hub for businesses and other organisations in the innovation system
- access doors throughout New Zealand, using technology and customer-facing teams to connect customers to the SuperShed.

The SuperShed is one of four ‘breakthrough projects’ at the heart of Callaghan Innovation’s ‘*Getting to Great*’ work programme.

123. RTS needs to be better aligned and integrated into the Callaghan Innovation mission and strategy. It is unclear why each business unit at Callaghan Innovation has its own sales force. As a customer-driven organisation Callaghan Innovation should work with businesses to identify their needs, and then either provide or direct them to a suite of services, one of which might be a technical service. For this to work RTS must be responsive to, and work within, the timeframes required by their customers. I was advised that this is currently a point of positive difference between RTS and other potential providers, such as universities that have other research and teaching drivers.
124. The development of customer-led and tested sector strategies, invention logic and the 'Go to Market' strategy as part of 'Getting to Great' will assist in improving alignment across Callaghan Innovation and with external partners. Certainly the planning around the SuperShed and the future options for Auckland and Christchurch provide an opportunity to dramatically reset the future role and operating model of RTS.
125. Now that the future of RTS as an integral part of Callaghan Innovation has been agreed, the leadership team of Callaghan Innovation needs to re-engage the RTS staff and build strong linkages at the front line across the agency. RTS staff must be involved in all stages of the redevelopment of Gracefield and the operating model that will support this part of the organisation going forward.
126. From our interviews, many staff in RTS are ready for this. Currently they are dependent for their success on their responsiveness to customers and the culture is increasingly aligning itself appropriately. There also appears to be growing alignment to the mission of Callaghan Innovation and the role RTS can play in it. Importantly RTS is improving its commercial revenue from both domestic and international clients.
127. The split of 'Crown funded' (Strategic Investment Fund and Contestable funding) and Commercial Revenue for RTS in FY2015 was approximately 60/40. The split of Commercial Revenue in FY 2015 was:

Type of Contract (106 contracts)	%
Contracts with firms	18.2
Contracts with CRIs*	1.5
Contracts with Universities and Government Agencies*	18.3
International (largely Glycosyn and Kiwistar)	62.1

- It is not clear what percentage of these contracts were in support of work being undertaken for firms
128. It should be noted that firms do not meet the full costs of the services provided.
129. Callaghan Innovation has undertaken an in-depth review of its RTS Advanced Materials and Sensing and Automation teams, other groups have yet to be reviewed. I am not able to comment on the extent to which the findings of this review will apply to RTS's other groups. The review noted that both teams:
- received most of their funding via Callaghan Innovation's Strategic Investment Fund (largely for maintaining capability)
  - were still receiving significant contestable funding which was due to expire creating financial pressure
  - earned less than 10% of their revenue from a large number of relatively small customers.

130. The Advanced Materials Team, in particular earned 25% of its commercial revenue from CRIs, universities, departments and overseas agencies – it was unclear the extent to which the effort involved was related to Callaghan Innovation’s mission.
131. In brief, the review recommendations (which are in line with our own observations) concluded that Callaghan Innovation/RTS should:
- strengthen the coordination and collaboration between the RTS teams and Accelerator Services
  - strengthen the customer-centric focus and the sophistication of customer engagement by the RTS teams
  - redefine the use of SIF to fund core strategic capabilities driven by knowledge of firms’ needs
  - develop robust logic about the purpose of, and expectations for, generating commercial revenues from R&D services
  - strengthen project management capability.
132. To be well placed on *Core Business 1: Delivering Innovation Services to Businesses* in terms of ‘value to customers and New Zealanders’ and ‘increased value over time’, Callaghan Innovation needs to:
- improve its access to market intelligence to guide the direction of research capability
  - identify critical areas where Callaghan Innovation must provide researchers and equipment to solve complex business problems, where there would otherwise be market failure and plan to evolve its services through time to remain relevant
  - align and integrate RTS into the Callaghan Innovation culture, mission, strategy and operating model, using cross functional teams and secondments to build collaboration
  - consider having a single sales force across Callaghan Innovation business units
  - re-engage the staff of RTS in the development of the SuperShed concept and the future operating model for RTS
  - determine an appropriate set of indicators of how well research and technical services are being provided to businesses and whether these are contributing to Callaghan Innovation’s outcomes and mission
  - demonstrate the flexibility and ability/capability to respond rapidly to evolving customer needs
  - maximise the potential return from the SuperShed strategy and investment and effectively manage the transformation of Gracefield by engaging staff, partners and customers in its design.

## Core business 2: Building New Zealand's innovation capability

Performance Rating (Value to Customers and New Zealanders): Needing development 

Performance Rating (Increased Value Over Time): Needing development 

133. This Core Business (known as Accelerator Services) involves:
- Customer Relationship Management
  - Business Innovation (single front door to skills, advice, support and technical services)
  - National Technology Networks (NTN's) and Sector Managers
  - Incubators & Accelerators
  - Regional Business Partner Management
  - Programmes and Events
  - Customer Engagement Centre and Global Expert.
134. The NTN group brings together information about global megatrends and the innovation frontier and enables participants to stay current about novel components, materials, subsystems, products and services. They support the sharing of knowledge about New Zealand technology services providers and help identify patterns of industry needs and opportunities. They also connect businesses in need of technology support with suppliers. Finally, they can both inspire groups of businesses to be early adopters of innovation and identify potential collaborative projects.
135. NTNs help build product development skills in high-value manufacturing firms by connecting them to sources of advice, facilities and outsourced R&D services and create linkages and visibility across public and private research capabilities, allowing businesses to access the experts and facilities they need (including Callaghan Innovation's own RTS teams). Members come from Callaghan Innovation, Universities, CRIs and from industry.
136. Seven National Technology Networks have been identified:
- information and communication
  - sensing and automation
  - advanced materials
  - biotech
  - food
  - measurement and compliance
  - design and manufacturing.
137. Three industry clusters have been identified. These are groups of high-value manufacturing firms that share a particular barrier to commercialising their innovation. Callaghan Innovation works with each cluster to find solutions to their major barriers. The barrier could be, for example, a lack of capital, facilities, or expertise. Industry clusters are fluid, with projects changing over time, and clusters themselves potentially changing depending on demand. Currently Callaghan Innovation is working with clusters relating to medical devices, aviation and telematics.

138. Accelerator Services is also intended to provide a single front door to the skills, advice, support and technical services that businesses in the HVMS sector need. It helps businesses navigate the New Zealand innovation system. However, as noted in the commentary on Core Business 1, RTS also has its own marketing capability that also provides a front door to RTS's skills and capability.
139. Customer Managers (CMs) and BIAs focus on innovation from a technology perspective, and in partnership with NZTE, address innovation opportunities across all aspects of a business. They help businesses build capability through Callaghan Innovation and NZTE programmes and by connecting businesses with the best training opportunities at other organisations in New Zealand and overseas. They also connect businesses with international service providers to help solve technical and market-related challenges.
140. Callaghan Innovation also funds and utilises (together with NZTE) a number of Regional Business Partners. There are 14 regional based entities that provide management capability and R&D support to small and medium-sized enterprises. There are three elements to the services:
- assessment and advice provided by business advisors to identify clients' development needs and provide advice, connections and support
  - NZTE capability development vouchers
  - Callaghan Innovation R&D support (Getting Started grants and advice in the preparation of other grant applications).
141. A recent MBIE review of this joint Callaghan Innovation/NZTE initiative found that, overall, it had an impact commensurate with its light touch nature. It noted a tendency for the two agencies' elements to be segregated but that they were working together to address this. This requires each agency to understand the other's services and to understand how a customer might move between their respective services. In addition, Callaghan Innovation needed to provide clearer messaging around the R&D grant process and, in particular, eligibility criteria and about non-grant R&D services.
142. A Programmes team undertakes events and programmes under five themes:
- Leadership, Innovation and Culture
  - Technology, Skills, Product Development & Process
  - Commercial, IP & Regulatory
  - Collaboration & knowledge sharing
  - Business benchmarking & diagnosis.
143. This Core Business also contracts with Incubators and Accelerators to provide services to businesses.
144. Five founder-focused incubators work with entrepreneurs by providing them with access to support, networks and investments that help them take a business idea, validate it in the market and – when there is potential – take that idea and build a business. The business idea may or may not have technology associated with it. These incubators operate a service model, providing similar sets of core-business support and development services for business formation and growth. Founder-focused incubators take a small equity stake in incubated businesses but are not the primary means of funding for that business.

- a. Three technology-focused incubators operate with a market-based, profit-driven focus to establish and nurture businesses based particularly on complex technologies, often derived from public research and development. These incubators identify intellectual property (IP) protected ideas or technology that may not have an associated entrepreneur and then work to build a business team around that intellectual property. They typically focus on building up a business to the stage where it is attractive to angel or venture capital investors. They are primarily funded from returns generated from equity stakes in successfully incubated companies. They are also able to access a new repayable grant by applying to Callaghan Innovation on behalf of the start-up companies they incubate. This repayable grant is only available to businesses partnering with technology-focused incubators funded by Callaghan Innovation.
- b. Accelerator programmes typically run over 12 weeks and focus on rapid and intensive product development to establish an investment ready start-up. Accelerators complement the services offered by founder and technology incubators. The incubator identifies a commercial opportunity and builds a strong business around it to attract investors. Accelerators run highly prescriptive programmes in fast-paced, high-pressure environments to get businesses investment ready and to provide a pathway to incubation. They provide concentrated, specialist mentoring, coaching and business support, leading to a final 'pitch' to an audience of potential investors at which seed, angel or venture capital funding might be attracted. To help sustain the entrepreneur, Lightning Lab funds its participants over three months. Three Lightning Lab accelerators currently receive funding from Callaghan Innovation.

145. The Budget for these services in 2015/16 is \$22 million. The performance measures for 2015/16 for this business are:

<b>Measure</b>	<b>Performance 2014/15</b>
Percentage of surveyed customers that agree or strongly agree that Callaghan Innovation has added value to their business	New measure
> 200 business related contacts per month to Customer Engagement Centre seeking access to business services	Achieved (>100 per month 2014/15 measure)
Total number of customers using each innovation service	New measure
130 business engagement plans agreed with customers per annum	New measure

146. Having shifted from a product and service push to a customer-led world, understanding the market, macroeconomic drivers and individual business needs is critical to the success of Accelerator Services. The need to systematically develop diagnostic tools, intervention logic and execution plans would be supported by the use of explicit portfolio management tools. This would also underpin better information on returns on investment on individual interventions but also across the portfolio.

147. At the moment the Business Innovation Group has approximately 690 companies under management. Callaghan Innovation believes that with its current operating processes this should be closer to 300~400 companies in order to deliver full value and the desired Callaghan Innovation experience to these customers. Customer demands, however, require a larger portfolio with lighter touch management profile. Callaghan Innovation anticipates that once the '*Getting to Great*' operational changes have been embedded over the next two years, the team will be able to increase this portfolio to approximately 1600 companies. This will result from improved operating processes and portfolio structuring decisions across the customer-facing teams. The increased capacity will be managed by both the Regional Business Partner network on its behalf and its own internal customer-facing group.
148. The staff in Accelerator Services have a customer-oriented culture and are generally highly capable and ambitious for the firms they work with. The early establishment phase of Accelerator Services was hampered by several changes in leadership and it still has relatively high staff turnover. Recent managerial changes in Accelerator Services and strategy development are starting to have a positive impact. BIAs have been recruited from the private sector and have technical and commercialisation experience. They are passionate about their work and ambitious for firms they work with but they are not yet as well connected across Callaghan Innovation as they need to be. Addressing this involves more than others knowing what they do and showcasing it, it also involves understanding and articulating how they fit in to the wider organisation. Alignment has been advanced most in areas where secondment and cross functional teams have worked together at the coalface.
149. Customers commented positively about their interactions with their BIAs. Customers commented on being pleasantly surprised by the range of services Callaghan Innovation could provide but some also commented that the range of services was not readily apparent to them, were 'self-discovered' and would have been more valuable earlier. Ambiguity persists around what services Callaghan Innovation provides, which firms are eligible for its services, how it segments and markets its services, and whether its market intelligence is adequate for the increasingly complex needs of customers. The range of Callaghan Innovation services needs to be understood by all sales teams, with everyone aligned to a '*One Callaghan*' business strategy.
150. Staff wanted greater clarity about the operating model. They need to understand how Accelerator Services is expected to work, how it connects to, and works with, other business units at Callaghan Innovation and with external partners and customers. Accelerator Services recognises that there is still a need for a more fundamental shift in culture to truly understand what being customer led means. Currently, the key lens used to segment customers is ambition to grow and degree of innovation, but partners find this segmentation difficult to understand and connect with.
151. Ideally, access to grants should be efficient and effective, and more time and effort should be spent on other activities. If Callaghan Innovation spent more time on its advisory services, integration role and regional reach, it would have a more viable and value adding offering.

152. There is a need to test how much flexibility Callaghan Innovation has to evolve what it does to reach firms it is currently missing. External partners and stakeholders share this concern that, without providing a bridge in other parts of the value chain and lifecycle of innovative firms, Callaghan Innovation will not realise its full mission. Callaghan Innovation needs to build its capability to do this and use an evidenced-based approach to evolve its operating model and client base.
153. I agree with the Callaghan Innovation Self-review that a consistent performance framework is required, supported by an effective segmentation of customers, a customer-led 'Go to Market' strategy and a functioning CRM system. In addition, deployment of portfolio management methodologies across Callaghan Innovation would further improve alignment and the ability to monitor impact. Finally, much greater alignment to NZTE and Regional Business Partners is required. Callaghan Innovation must clarify its partnering strategy jointly with its partners and deliver on time and to consistently high standards on joint work programmes.
154. Since the Self-review, Callaghan Innovation has implemented customer segmentation, a customer engagement strategy, recruited additional BIAs and CMs and developed an improved Partner Programme. While these are positive developments, there is much to do with customers and partners to align, embed and roll out these initiatives.
155. To be well placed on *Core Business 2: Building New Zealand's Innovation Capability*, in terms of 'value to customers and New Zealanders' and 'increased value over time', Callaghan Innovation needs to:
- clarify what success looks like, with an execution plan that is published and multifaceted with all layers of the operating model aligned to it. Once defined, it is vital to keep the strategy simple and communicate it frequently and consistently, internally and externally
  - deliver on its potential – Accelerator Services needs to be aligned and focused internally and with other parts of Callaghan Innovation; it needs to prospect and engage in the right markets and its partnering strategy needs to extend and deepen its reach
  - utilise management methods, such as 90-day plans and portfolio management tools to get into a rhythm of implementation that shortens the time taken to achieve impacts and also increases impact over time
  - think about the fit with grant and research components of the business more strategically and use a vertical strategy to help firms go up the value chain;
  - drive the strategic partnering model off value rather than funding
  - improve understanding of which strategic partners drive most value and for whom
  - use grants as a genuine accelerator and not just to get people through the door
  - demonstrate value in the advisory, brokering and connecting role to show the outcome of putting firms and others together
  - use internal organising principles that reflect how customers see Callaghan Innovation and its partners and how customers operate.

### Core Business 3: Administration of Innovation grants

Performance Rating (Value to Customers and New Zealanders): Well placed



Performance Rating (Increased Value Over Time): Needing development



156. Callaghan Innovation manages three R&D grant funds. It provides allocation and monitoring services of these grants to business. The services provided cover:

- assessment and due diligence of grant recipients
- monitoring of contracts and incubators
- funding and monitoring outsourced partner organisations who promote Callaghan Innovation's services.

157. The Grants administered by Callaghan Innovation are:

- **Research and Development Growth Grants** – Growth grants are designed to increase R&D investment by businesses that have a strong track record for R&D spending in New Zealand. Co-funding of 20% of R&D spend is provided for three to five years, capped at \$5 million a year. The criteria broadly require the businesses to have spent at least \$300,000 per annum and 1.5% of revenue on eligible R&D in each of the last two years and to meet financial and due diligence requirements. The performance measure for these grants requires that 70% of businesses receiving a grant should maintain or increase their R&D expenditure over the grant period. This measure was exceeded in 2014/15 (77%).
- **Targeted Business Research and Development Funding** – R&D project grants support greater investment by businesses in R&D, especially by those businesses with less established R&D programmes. This funding provides between 30% and 50% of R&D costs. R&D experience, career and fellowship grants support undergraduate and graduate students to work in commercial R&D environments as interns in commercial R&D facilities. To qualify, a business must meet financial and due diligence requirements and not have had a Growth Grant or be eligible for a Growth Grant. The performance measures for these grants are that:
  - 80% of businesses completing R&D projects positively rate Callaghan Innovation's assistance as valuable in their final reports
  - 80% of surveyed recipients would recommend the R&D experience grants to others.

Both of these measures are new for the current financial year.

- **Repayable Grants for Start-ups** – The Incubator Support Programme accelerates the growth and success of high-value New Zealand start-up businesses through a range of services and funding. These grants support development and growth of new technology-focused business start-ups and must be repaid if commercialisation succeeds. Recipients receive 40% of eligible R&D project costs, up to \$5,000 for research undertaken in New Zealand. The performance measures for these grants are that:
  - 90% of incubator contracts are assessed as delivering as required (founder-focused and technology-focused). This measure was achieved on 2014/15
  - 90% of businesses from technology-focused incubators enter into repayable loans agreements. This is a new measure.

158. MBIE reviewed the Business R&D Grants programme (April to September 2014) and found that the programme was being delivered in line with the policy intent. The review noted there had been strong uptake of Growth Grants and one third of recipients were new to the Business R&D Grants programme.
159. Callaghan Innovation is widely credited with tidying up the administration of innovation grants and investment decision processes. A standardised assessment process has been introduced for Growth Grants in line with a rules-based approach, and a new centralised decision process for Project Grants ensures a consistent approach is taken to applying policy criteria. Callaghan Innovation also provides regular reporting to management and the Board on grant activity and is currently making further improvements to its monitoring and reporting process. The Grant Committee of the Board is well supported and is considered to be very effective.
160. The review also identified opportunities to improve some areas of implementation and delivery to increase client focus and ensure the Grants programme makes the best possible contribution to the goal of increasing Business R&D to 1% of GDP by 2018. Staff, partners and stakeholders have indicated the latter is yet to be fully addressed. There is also opportunity to get better alignment between this part of Callaghan Innovation and the other business units.
161. Grants should increasingly be used to accelerate commercialisation and value, rather than just to get firms through the door. In future, firms should come to Callaghan Innovation for advisory services and then a number of services could be offered through the initial discovery process, tailored to the particular needs of the firm, one of which might be a grant at an appropriate point in the firm's lifecycle.
162. While the grant process has been improved, some stakeholders and staff suggest that the key consideration in the process is assessment of risk rather than value creation. Callaghan Innovation recognises that it faces some strategic choices around risk appetite when it comes to commercial and technological risk. Staff are still unsure what 'customer-driven' means in an environment that is governed tightly by rules and processes. There is room to improve customer experience and certainty, even in a rules-based system. Callaghan Innovation needs to focus on refining these aspects of its grants operating model.
163. Finally, there is more work to be done to understand whether increased value is being created through time, both in terms of the grants process but also in terms of outcomes.
164. Since the PIF Self-review, Callaghan Innovation has implemented a new CRM system, developed the Grants Enhancement Plan and a new Ministerial Direction has been promulgated. A grants reporting dashboard is on track to be produced during the current quarter.
165. To be strong on 'value to customers and New Zealanders' and well placed in 'increasing value over time' for *Core Business 3: Administration of Innovation Grants*, Callaghan Innovation needs to:
  - develop a portfolio view for grants, by sectors, regions, etc
  - join up the grants administration strategy with the strategy of other business units, especially Accelerator Services
  - consider the appropriate risk appetite and risk/reward trade-offs around the grant portfolio and ways to mitigate risk without losing sight of value
  - further improve customer experience and certainty through the grant process
  - build and refine a performance dashboard for grants administration and outcomes.

# Organisational Management Section

This section reviews the agency’s organisational management. While the questions guide the Lead Reviewers to retrospective and current performance, the final judgements and ratings are necessarily informed by the scope and scale of the performance challenge.

## Part One: Leadership and Direction

**Purpose, Vision and Strategy**

How well do the staff and stakeholders understand the agency’s purpose, vision and strategy?

How well does the agency consider and plan for possible changes in its purpose or role in the foreseeable future?

---

Performance Rating: Needing development 

**Leadership and Governance**

How well does the senior team provide collective leadership and direction to the agency and how well does it implement change?

How effectively does the board lead the Crown entity? (For Crown entities only)

---

Performance Rating: Needing development 

**Values, Behaviour and Culture**

How well does the agency develop and promote the organisational values, behaviours and culture it needs to support its strategic direction and ensure customer value?

---

Performance Rating: Needing development 

**Review**

How well does the agency encourage and use evaluative activity?

---

Performance Rating: Well placed 

### *Purpose, Vision and Strategy*

166. Callaghan Innovation’s purpose is to accelerate the commercialisation of innovation by New Zealand businesses. This purpose is clear and partners and customers strongly endorse the critical role that Callaghan Innovation has to play. The criticality of Callaghan Innovation’s role to the future performance of New Zealand firms has led to heightened expectations about pace and execution. In the best of circumstances, it takes time to get alignment and culture change embedded to deliver strongly on mission. While Callaghan Innovation has come a long way from its inception with a strong purpose, it was inevitable that staff, partners and customers would be impatient to see a mature organisation with clarity of business strategy and direction as well. The PIF

measure uses this mature state as its comparator but this should not diminish the progress Callaghan Innovation has made in the early stages of its lifecycle.

167. Staff, stakeholders, partners and customers identify strongly with Callaghan Innovation's purpose and are motivated by it. However, it has struggled to identify and articulate its business strategy and the impacts it seeks and the interlinkages with the strategies of other sectors and agencies in a way that is understood, aligned and creates a call to concerted action. Consequently, Callaghan Innovation has not consistently identified and set its short-term strategy in line with its strategic objectives. Staff commented frequently on the need to define the strategy and business plan in sufficient detail to make the short and medium-term direction clear. Partners noted the need to be more deliberate and systematic in order to get more alignment and collective impact. Staff, stakeholders and partners also want to be involved earlier and more deeply in bringing greater clarity to medium-term strategy and shorter-term priorities.
168. Partners and staff wanted simpler statements of 'what success looks like' and 'how we do business around here', making comparisons with those found at NZTE. In addition, staff talked about the desirability of taking a portfolio approach to Callaghan Innovation's activities and functions, which would also help to underpin new ways of collaborating across Callaghan Innovation and with partners and customers. Finally, these simple expressions of what success looks like need to be capable of being captured in meaningful and measurable performance metrics.
169. Clarity of business strategy and alignment has been hampered by ongoing uncertainty over the future of some of the programmes that Callaghan Innovation inherited when it was set up. Questions were left unresolved about whether some functions were consistent with its mission and sufficiently targeted at growing HVMS.
170. Staff, stakeholders, partners and customers have questioned whether Callaghan Innovation has the market intelligence and agility required to respond to the pace of change in the business environment and the impact this is having on customer needs. These changing needs will require further adaptation of Callaghan Innovation's role and functions in the future. Callaghan Innovation needs to position itself to lead this discussion with government, partners and customers. It can only do this with far deeper market intelligence, better identification of its current and potential customers and their needs and deeper understanding of the key drivers of firm performance and innovation uptake.
171. Finally, a more explicit expression of risk appetite is required in the organisation or strategies to segment risk and locate it where it can best be managed while allowing innovation, experimentation and risk-taking to occur. Indeed some staff, partners and customers noted conflicting signals about Callaghan Innovation's risk appetite and variations within the agency that limit collaboration and concerted action.
172. To be 'well placed' on *Purpose, Vision and Strategy*, Callaghan Innovation needs to:
  - bring more specificity to its medium-term strategy through simpler measures of 'what success looks like' and statements of 'how we do things around here' to ensure that they are well aligned to evolving customers' needs and market circumstances
  - build its business and customer intelligence to ensure it can anticipate market gaps and changing customer needs, to continue to evolve, mature and sharpen its own functions and roles through time

- consider adopting a portfolio approach, with supporting performance metrics to sharpen and define its strategy, build alignment and demonstrate impact. A portfolio approach should clarify how different functions at Callaghan Innovation contribute to its overarching mission, creating much greater line of sight between individual effort and contribution to growing commercialisation of innovation
- use 90-day cycles to align shorter-term action across Callaghan Innovation and its partners to its medium-term strategy; developing a rhythm of execution that shortens the time taken to deliver specific actions, while improving impact over time, accelerating pace of execution and expanding scale of impact.

### *Leadership and Governance*

173. The Board and management of Callaghan Innovation use the usual processes to develop and focus on strategy. There is an annual Board strategy session and Board performance reviews are undertaken regularly. Management meets monthly to focus on strategic issues and has tasked the Pursuit Team to build capability and vision and to agree actions and implementation approaches to address the strategic direction agreed by the Board and ELT.
174. We received consistent feedback across the organisation and from critical friends that the business strategy (outcomes sought and organisational strategy) is not sufficiently defined. Callaghan Innovation itself has identified that it is still operating as a set of independent business units rather than a cohesive whole, making it difficult to highlight, discuss and address strategic issues. External partners, even those close to Callaghan Innovation, report that they lack clarity about the Callaghan Innovation strategy at a level that would allow them to successfully partner with the agency.
175. I agree with Callaghan Innovation's Self-review, which noted that the Board and ELT must 'show the way' by providing context and helping people understand and commit to the direction and role they play in getting there. Enterprise leadership that results in leaders acting together in groups to implement strategies, solve problems, navigate ambiguity and support innovation is critical to Callaghan Innovation's success. When leaders do this, it is likely the workforce and partners will follow and align themselves to the desired direction.
176. Concerns about inconsistent messaging and communication from the Board and ELT to the rest of the organisation have also been noted. Some teams are well informed and aligned, while others appear to have only a limited understanding of Board and ELT decisions.
177. Since the agency Self-review a leadership and competency framework has been implemented that is underpinned by Callaghan Innovation's values. The framework specifies three distinct expectations of what its leaders need to do: 'show us the future', 'take us on the journey' and 'make sure we get there'. Associated competencies to support each of these leadership expectations have been specified. In addition, 360 degree reviews and feedback for ELT members have been implemented. There are encouraging signs that these changes are having an impact, but ELT must take steps to ensure that it consistently achieves high levels of alignment and provides effective collective leadership of Callaghan Innovation and the sector.

178. As noted in the Four-year Excellence Horizon, I perceive that Callaghan Innovation is transitioning from a traditional hierarchical operating model and leadership style to one that is customer-driven and akin to a professional service firm approach. This would involve a collaborative and participatory approach, engaging early with staff to co-create strategy and tactics, ensuring both a high level of understanding of and commitment to the plan. I stress the importance of Callaghan Innovation completing this transition quickly.
179. Many staff, leaders and Board members noted the importance of better alignment between the ELT and the Board. Some decisions seem to have taken longer than we would have expected and there have also been issues with management papers not adequately meeting Board expectations or facilitating effective decision-making.
180. Finally, there continues to be concern at the Board level (echoed by staff, partners and stakeholders) about the absence of sufficient performance information. While a newly established agency can expect to go through a development phase where these matters are worked through, it is time now for the Board and management to achieve strong alignment on strategy, and direction and what success means for Callaghan Innovation. Now that the future functions and roles of Callaghan Innovation have been resolved, strong alignment should be readily achievable. This will go some distance to helping the agency to accelerate delivery of outcomes for its customers and NZ Inc.
181. Recent refreshment of the Board and anticipated changes to the ELT provide an opportunity for the Board and management to put the establishment phase of the agency behind it and move strongly forward into the execution phase, strongly aligned to a shared vision, business strategy and operating model.
182. To be 'well placed' on *Leadership and Governance*, Callaghan Innovation needs to:
- successfully implement the leadership framework and competency expectations
  - reset the Board/management relationship to push through the establishment phase so that both Board and the ELT focus on execution and achieving pace and impact
  - provide much stronger performance metrics, so there is transparency about what success looks like and how the agency is performing at any point in time
  - improve clarity of communication of business strategy, vision and operating model from the Board and ELT to the rest of the organisation and to partners, stakeholders and customers
  - strengthen collective leadership and collaboration amongst the leadership team and drive those behaviours and new ways of working through the organisation.

### *Values, Behaviour and Culture*

183. Callaghan Innovation's core values are:
- About business – for business success
  - Bold – forward thinkers, ahead of the game
  - Connected – professionals working together
  - Delivering results – we're resourceful.

184. These values are consistent with the Callaghan Innovation purpose and vision and reflect the sort of values that drive the highly innovative firms Callaghan Innovation wants to work with. There are encouraging signs that these values are owned in significant measure by an increasing number of Callaghan Innovation's workforce. However, many staff question whether these values are consistently lived in the organisation and whether the current operating model allows these values to be realised. As I have already noted, it is crucial that these values are reflected in the style and behaviours of Callaghan Innovation's leaders.
185. While there is wide recognition that Callaghan Innovation is 'About Business and Delivering Results', the current business strategy and operating model is not deliberate, aligned or driven by a sufficiently clear understanding of what success looks like to allow it to deliver results. People in the business consistently indicate that the organisation is not adequately connected and cohesive internally, though there is widespread recognition that it needs to be if it is to be connected and facilitate collaboration externally. Finally, while staff are encouraged to be bold, the absence of clarity of business strategy and priorities, can limit focus and impact.
186. The culture at Callaghan Innovation is seen (internally and externally) to be siloed, with a number of cultures simultaneously in existence. It appears that the management focus on culture has been insufficient to date to align the disparate cultures of inherited organisations and the emerging culture of new functions to the future requirements. This is a critical component of enterprise building, especially given the establishment phase included the dynamic of both a start-up and a merger. To get the desired acceleration in execution across Callaghan Innovation, this needs to be relentlessly and consistently addressed.
187. While managerial focus appears to be centred on the culture of RTS, other parts of the organisation also need management attention. There is insufficient understanding of the value that can be added by different functions across the agency. It is hard will be hard for Callaghan Innovation to play an integrator role, if people in Callaghan Innovation do not know what their colleagues are doing or insufficiently value their contribution. There are some early signs that cross agency secondments and other experiments in ways of working are beginning to break down these barriers.
188. The Minister indicated in the 2015 letter of expectations that he expects Callaghan Innovation to use its highly talented scientists and researchers better to support domestic firms to undertake R&D. This may require parts of the organisation to change their culture, business practices and behaviour. ELT must model and lead this change.
189. In terms of behaviours, staff generally observed that while they have seen improvement, people are still patch protective, particularly at senior levels. Only new ways of working across teams will address this and people at the front line seem up for this. If Callaghan Innovation is to be successful, it needs to demonstrate the same behaviours it is trying to facilitate in businesses: collaboration, agility, teamwork and openness.
190. More recent pulse staff surveys show they are developing a stronger sense of feeling connected and committed to Callaghan Innovation and greater clarity of purpose and vision. '*Getting to Grea't* has resonated with staff, even if the process for generating it did not.

191. To be 'well placed' on *Values, Behaviour and Culture*, Callaghan Innovation needs to:
- use new ways of working across the organisation and with partners to drive understanding and shared culture and values that are consistent with a customer-driven organisation
  - require all managers to consistently model the values, behaviour and culture that align with its vision, mission and strategy
  - ensure its internal values, behaviours and culture reflects the values, behaviour and culture that successful firms demonstrate as they innovate and commercialise IP
  - be far more explicit about what behaviours and culture will underpin Callaghan Innovation's success and ensure that people who bring those behaviours and culture to life are rewarded accordingly.

### *Review*

192. Callaghan Innovation has been the subject of a number of reviews mandated internally or by its policy and monitoring agency MBIE over the last two years. These reviews have related to its:
- Grants programme
  - Repayable Grants and Incubator Support Programmes
  - Regional Business Partners
  - Incubators
  - Accelerators
  - The FoodBowl
  - RTS – Advanced Materials and Sensing and Automation functions.
193. This PIF Review is a part of a review of Callaghan Innovation required by the Cabinet decisions establishing it. Further reviews are programmed for out years.
194. These reviews achieve the dual purpose of informing MBIE in its policy and evaluation roles and informing Callaghan Innovation's leadership of the opportunities for performance improvement in its own operations and those of its partners (including its relationships with those partners). For example, Audit Reviews have led to the Grants Improvement Programme of Work referred to in Core Business 3.
195. Callaghan Innovation has recognised the need to improve its understanding more generally of the needs of its current and potential customers and has plans to systematically obtain and use that information both through the redevelopment of its CRM system and in terms of customer and stakeholder surveys.
196. To be 'strong' in *Review* Callaghan Innovation would need to:
- build the business and customer intelligence to ensure it can anticipate market gaps and changing customer needs, to continue to evolve, mature and sharpen its own functions and roles through time
  - review, on a systematic and continuous basis, its products systems and processes using the eyes of its customers
  - clarify intervention logic and desired impacts when programmes are initiated so they set the benchmark for future reviews.

## Part Two: Delivery for Customers and New Zealanders

**Customers**

How well does the agency understand who its customers are and their short and longer term needs and impact?

How clear is the agency's value proposition (the 'what')?

---

Performance Rating: Well placed 

**Operating Model**

How well does the agency's operating model (the 'how') support delivery of Government Priorities and Core Business?

How well does the agency evaluate service delivery options?

---

Performance Rating: Needing Development 

**Collaboration and Partnerships**

How well does the agency generate common ownership and genuine collaboration on strategy and service delivery with partners and providers?

How well do the agency and its strategic partners integrate services to deliver value to customers?

---

Performance Rating: Needing development 

**Experiences of the Public**

How well does the agency employ service design, continuous improvement and innovation to ensure outstanding customer experiences?

How well does the agency continuously seek to understand customers' and New Zealanders' satisfaction and take action accordingly?

---

Performance Rating: Needing development 

### Customers

197. Callaghan Innovation's customer focus is on the HVMS and Māori businesses, where the ambition to grow is strong and the firms are technology-driven. HVMS firms are export and R&D intensive and are more likely to innovate than other sectors. Māori businesses are being supported to embrace innovation as a catalyst for unlocking the potential of the Māori economic asset base.

198. Callaghan Innovation has initiated work on customer segmentation using ambition and innovation as two key dimensions. Callaghan Innovation supports businesses that have ambition to significantly increase their share of existing markets. Its services help to increase the odds of success for those businesses that have the passion to take on the risks and potentially reap the rewards of innovation. In addition, the Callaghan Innovation *Statement of Intent* identifies that the agency focuses on those businesses that want to disrupt markets through their technology rather than merely keep up with their competitors.
199. Currently the Business Innovation Group has approximately 690 companies under management. Callaghan Innovation believe that with its current operating processes this should be closer to 300~400 companies to deliver full value and the desired Callaghan Innovation experience to these customers. Ideally, Callaghan Innovation would hope to have a portfolio with front, middle and back burner companies and use more sophisticated segmentation criteria. In the medium term as sector game plans mature, it should be possible for Callaghan Innovation to reach out to more firms and build a more explicit portfolio approach.
200. Callaghan Innovation has taken important steps to underpin its understanding and responsiveness to its customers, including by:
- segmenting its customers to allow better targeting of services and implemented a customer engagement strategy
  - developing an integrated service suite and associated tools for front line staff to explain services more effectively to customers
  - commissioning a survey of customers on the quality of services they have received
  - increasing the reach and impact of its digital channels, eg Twitter and blog platforms. In addition an audit of digital channels has been commissioned to inform how to get greater engagement through these channels
  - developing a range of self-help tools to assist staff to communicate and engage with customers.
201. Customer segmentation is at an early stage and Callaghan Innovation largely responds to businesses that reach out to it. There are encouraging signs that the customers it is working with are increasingly impressed with that interaction. Most of the customers I spoke to indicate that while they originally approached Callaghan Innovation for a grant, they have been positively surprised at the other services available and wish they had accessed those support services earlier. Most customers indicated that the greatest value they get from interaction with Callaghan Innovation comes from other connections they have been able to make as a result of that relationship. However, many customers were unclear what assistance Callaghan Innovation could provide as they moved through early stage commercialisation towards the need to accelerate 'speed to market' and 'grow to scale'.
202. Many partners and stakeholders raised similar concerns and pointed out that at this point in its evolution Callaghan Innovation is still only able to bridge gaps at the very early stage phase. To realise maximum returns from innovation, Callaghan Innovation will need to quickly gain a more nuanced understanding of market developments, supply chains, design, marketing and the challenges of achieving the required scale and speed to market. This raises challenges for Callaghan Innovation in terms of whether its workforce has the required depth and breadth of experience and whether its current operating model sufficiently addresses its full potential client base across the likely trajectory of their path from start-up to IPO.

203. Related to this is a view that Callaghan Innovation will have to explore new delivery methods to have the impact that is needed. This includes determining how it will leverage the capability of others in the system and how it should transact with businesses.
204. Callaghan Innovation needs to ensure that its process of prospecting for customers and how it defines its target customer segments is based on a clear understanding of firms and their needs, and is strongly aligned to its strategy and purpose. The role of Callaghan Innovation is to de-risk innovation activity for firms and fill any gaps in the market they face as they go from IP to IPO. It is still not clear that Callaghan Innovation has the market intelligence needed to identify these gaps and bridge them. Some question whether Callaghan Innovation has the mandate to fill gaps in the market and help de-risk innovation and commercialisation, others suggest that this has not been tested.
205. The role of integrator in the innovation system is widely seen as critical to New Zealand's success. However, Callaghan Innovation is seen as only partially meeting its mission. There is no one else in the system that can play this role, which is vital if firms in a small trading nation are to find their way in an increasingly fast moving, competitive global environment.
206. I am heartened by the feedback from customers about the relevance and value created by Callaghan Innovation. This was equally strong in both current market segments: ambitious and innovative HVMS firms and also amongst Māori businesses aspiring to unlock the full potential of Māori economic assets. In the latter case a number of partners noted that Callaghan Innovation is bridging a gap and finding success with Māori collaboration in areas where they had previously failed to get traction, despite a decade of effort and investment. This is a positive development.
207. Callaghan Innovation needs to systematically capture the nature and extent of this value. To achieve this, Callaghan Innovation must understand the intervention logic that connects its actions to improved commercialisation. It needs to get ahead of the curve and understand the particular role that a government funded entity needs to play in the innovation system. Any market failure is likely to be in the pre-investment phase for small and medium-sized businesses, but this needs to be fully tested. Robust testing must also be undertaken on what the nature of any market failure actually is. Finally Callaghan Innovation has to stress test the impact it actually has in addressing market failure for firms and across the system more broadly.
208. In this regard the collaboration occurring with MOTU and the Productivity Commission on how to measure the impact of interventions such as grants on innovation and R&D is a positive development. Using large data sets, work is being undertaken on what drives firm performance in New Zealand, getting behind the high-level productivity story to get an analytical base at the level of the firm.
209. Two other important enabling tools to improve customer responsiveness are CRM and the 'Go to Market' strategy. The CRM is at early stages of operationalisation. Having implemented a piece of technology, Callaghan Innovation still needs to decide what information is required and who is responsible for collecting and entering it and when. Without meaningful data, the CRM cannot be reliably operationalised. Changes in culture and behaviour are needed to become truly customer driven and to effectively operationalise the CRM platform.

210. Finally, with respect to the proposed '*Go to Market*' strategy, Callaghan Innovation will not be able to operate below the highest level of business planning until its market strategy is complete.
211. To be 'strong' on *Customers*, Callaghan Innovation needs to:
- develop and implement, in consultation with customers and partners, the Callaghan Innovation '*Go to Market*' strategy
  - turn the CRM technology platform into an effective operational tool and in time, reconsider whether NZTE and Callaghan Innovation should share a common CRM
  - refine customer segmentation and market gap analysis as market and firm level intelligence improves and consider the implications for Callaghan Innovation's offerings and its future operating model.

### *Operating Model*

212. The Callaghan Innovation operating model has been through realignment as a consequence of developing its *Getting to Great* initiative. As I have noted already it is now trying to shift from a traditional hierarchical product and services business model to one that is customer led and more akin to a professional services approach. Understanding the market and macroeconomic drivers, the science and technology needs of individual businesses and their business support requirements is essential to support diagnosis and intervention planning.
213. Since inception, Callaghan Innovation has needed to start afresh to put in place the organisational structures, processes, practices and assets needed to deliver its strategy. Considerable work has occurred in developing talent and people capability, technology, and intellectual property. Work is underway on improving physical assets, such as how to renew Gracefield and the property options for Auckland.
214. In addition to this, Callaghan Innovation has undertaken a wide range of initiatives, such as:
- commencing work on a dynamic planning and budgeting process
  - reconfiguring financial, management and systems accounting functions prior to the roll out of the new financial management system
  - piloting the use of a 'fast-fail' model
  - completing recruitment to positions across the organisation, including business analytics.
215. Further improvements to business planning below the vision level will be significantly advanced with the completion of the '*Go to Market*' strategy, a portfolio approach and a functional CRM system.
216. In terms of management philosophy and accountability, 'tight-loose-tight' management works well for an organisation such as Callaghan Innovation, where staff are highly motivated and ambitious for results in an environment that requires agility and collaboration to achieve results for customers. While this management style has been described in a number of ways, it generally has the following features:
- Purpose/Business Strategy/Projects: Tight and customer-driven and management-led
  - Implementation: Loose and self/team organised
  - Results/Outcomes: Tight and management controlled, to ensure quality focus and that the original purpose, business strategy and business plan are delivered.

217. A number of key partners and many of the staff and management I interviewed observed that this management and accountability regime should be explicitly adopted. While Callaghan Innovation is very good at the 'loose' component and empowers its people, the organisation lacks clarity of purpose and accountability for results because the two 'tight' elements are undeveloped in significant areas of the business. The intention to move to an agile and responsive implementation approach and away from a traditional prescribed approach with detailed rules and processes is well founded. However, it must be anchored by alignment on purpose and strategy at the sector, organisation and project/team level and there must be unrelenting focus on delivery of results against the original purpose and strategy.
218. To be 'well placed' on *Operating Model*, Callaghan Innovation needs to:
- align its leadership approach to a 'tight-loose-tight' management approach
  - use business analytics to improve and change the operating model through time, identifying trade-offs, risks and harnessing choice
  - improve the understanding of what drives results for customers at a firm level, in order to continue to refine the Callaghan Innovation offering and all layers of the operating model
  - ensure that culture change and training supports the rollout of critical new systems, frameworks and tools - there is an immediate opportunity to ensure effective take-up of the new CRM tool
  - ensure that its operating model supports strategic alliances with partners to enable effective collaboration for cumulative impact for shared customers.

### *Collaboration and Partnerships*

219. Callaghan Innovation collaborates and partners with a wide range of organisations. These are discussed in more detail in the Relationship section. Collaborating with NZTE is particularly relevant to customers so that they can receive end-to-end support. For common customers, there is one approach to engagement for their common purpose. In 2014/15 Callaghan Innovation developed innovation plans for 157 companies, of which 61 plans were developed jointly with NZTE.
220. Callaghan Innovation has also partnered successfully to deliver innovation services to Māori businesses. For example, a collaboration with Crop and Food has the potential to unlock substantial value to a consortium of Māori-owned businesses and landowners.
221. Callaghan Innovation also partners closely with economic development agencies, for example, the FoodBowl is co-owned with ATEED, GROW Wellington is in discussions over the future redevelopment of Gracefield Innovation Quarter and Canterbury Development Corporation is a partner in the FoodSouth facility. In addition, Callaghan Innovation is a member of KiwiNet with 14 Universities and CRIs.
222. More recently Callaghan Innovation has joined the Board of NZ Food innovation Network, Food Innovation South Island (FISI) and Food Innovation Waikato (FIWI) to better connect food innovation across New Zealand. Finally, Callaghan Innovation has partnered with TEC on the roll out of ICT graduate schools.
223. While some of these partnerships have been very successful, some partners were frustrated noting the scope for much greater and more effective collaboration and the development of strategic alliances. To move in this direction, Callaghan Innovation needs to deepen its relationship with key partners. A number of partners have suggested

this could happen through the establishment of a partner advisory group. Callaghan Innovation needs to use the goodwill partners have for the potential role Callaghan Innovation has in the system and let them help set the agenda, form strong alliances and create a coalition of the willing. Clarity over who owns the partnership, what are shared goals and how agencies are going to work together is essential, as is a commitment to shared KPIs and accountability for delivering results.

224. In addition to the points in the Relationships section, to be 'well placed' on *Collaboration and Partnership*, Callaghan Innovation needs to:

- over-communicate, enlist partners early on strategy and priorities, and be visible to ensure consistent leadership and consistent messaging
- define what success looks like, use simple expressions of it to create a rallying cry for the innovation system and stick with it so partners can align themselves to the strategy
- allay concerns of partners by having a well-defined value proposition, that complements rather than crowds out others
- consider the establishment of a partner advisory group as a precursor to forming strategic alliance
- use 'tight-loose-tight' techniques to keep partnerships dynamic, agile and customer-driven rather than process-driven.

### *Experiences of the Public*

225. This element tests an agency's approach to ensuring outstanding customer experiences and ensuring that feedback from both customers and New Zealanders informs improvement and innovation in the agency's products and services.

226. To be well placed on *Experiences of the Public* Callaghan Innovation will need to:

- develop and implement the Callaghan Innovation 'Go to Market' strategy in consultation with customers and partners
- turn the CRM technology platform into an effective operational tool
- develop deep insights into the future needs and expectations of its current and potential future clients so it is able to anticipate the interventions that will be required to deliver the requisite lift in New Zealand's innovation performance.

## Part Three: Relationships

### Engagement with Ministers

How well does the agency provide advice and services to Ministers?

Performance Rating: Well placed



### Sector Contribution

How effectively does the agency work across the sector?

Performance Rating: Needing development



#### *Engagement with Ministers*

227. Callaghan Innovation is accountable to the Minister of Science and Innovation, who appoints the Board, sets expectations, and monitors and reviews performance and manages the risks on behalf of the Crown. The Minister is advised by MBIE on matters of policy and Callaghan Innovation's performance, including its accountability requirements. Through the BGA, Ministers have set collective goals for NZ Inc. and Callaghan Innovation is expected to play a full and active role.
228. The Chair and Board of Callaghan Innovation have a constructive relationship with the Minister who considers that the agency is becoming more effective at integrating its functions into a coherent and relevant offering. Government recognises the challenges of establishment were significant because of the need to bring together a range of old and new functions in a single stand-alone organisation. It is recognised that Callaghan Innovation's customers are increasingly positive about the single door, but multiple products approach that the agency seeks to deliver. The opportunity is to put the establishment phase behind it and accelerate delivery.
229. As a Crown Agent, Callaghan Innovation needs support from MBIE, the policy and monitoring agency, to:
- clarify its intervention logic, so that Callaghan Innovation focuses on the drivers of innovation in the system
  - build firm level analytics to understand the current state of the innovation system, identify target firms and their R&D and technology needs and address any gaps in the innovation ecosystem
  - undertake strong evaluation and review in order to build feedback loops to improve responsiveness to firms and return on firm's and the wider public's investment in research and development and innovation
  - ensure open information flows between the Minister and the Board around performance expectations, risk and desired outcomes.
230. To be strong on *Engagement with Ministers*, now that establishment issues have been addressed, Callaghan Innovation needs to:
- accelerate delivery to customers and focus on helping firms navigate the path from IP to IPO
  - ensure that RTS is customer driven and provides an effective extension of target firms' capability
  - align its culture to be consistently market driven

- develop a deep understanding of customers, to hone its integrator and partnering role across the innovation system
- ensure it can demonstrate the impact it is having on business innovation.

### *Sector Contribution*

231. Callaghan Innovation has a key role as an integrator across the innovation system. To fulfil this role, it must understand the needs of the businesses that deliver innovative products and services and be able to act as a bridge between the business and the research communities. Their public sector partners include CRIs, government agencies, tertiary education organisations, regional economic development agencies and NZTE.
232. Callaghan Innovation's *Statement of Intent* states that working with partners is "key to delivering collective impact and key to our success". Nowhere is this complementarity more strongly needed than with NZTE, with whom it shares over 670 customers, as of January 2016. Of these shared customers 291 are part of NZTE's Focus 700 group of intensively managed customers. The majority of shared customers, however, are segmented into NZTE's 'Managed Foundation' group of customers. Ensuring the right mix of services, delivered at the right time, across NZTE and Callaghan Innovation is key to ensuring firms with credible ambition to innovate and grow are also supported on their internationalisation journey. There remains considerable scope for Callaghan Innovation to step up its ability to feed and utilise NZTE's existing pipeline. Callaghan Innovation could set clearer expectations of customer-facing staff for how they will work with NZTE and, at what point.
233. Working together with NZTE around shared customers was an objective envisioned when Callaghan Innovation was established. Concurrent exposure to innovation and export objectives and capabilities helps more New Zealand firms grow faster and more efficiently. Close collaboration allows a system-level approach to bringing different firms through the development pipeline, building export and innovation objectives that are linked together, responding to commercial realities, and fostering the development of products that suit international as well as domestic markets. I consider the importance of moving toward these goals is an imperative and recognises that R&D, business innovation, and readiness to export are non-linear stages of firm development.
234. Shared customer engagement with NZTE means that the Accelerator Services business unit relationship is pivotal. While progress on the joint work programme has been slow to develop, there are some emerging areas of collaboration, such as identification of joint customer engagement plans and progress towards automatic data sharing.
235. Callaghan Innovation has had some very successful interactions with CRIs, particularly with respect to the Māori economy. Nevertheless more clarity around Callaghan Innovation's business strategy, product and service offering and operating model is required to get better alignment with CRIs and reach the full potential scale of collaboration needed.
236. Universities are another key player in the sector. There are mixed views about how well Callaghan Innovation has been able to play the integrator role across the innovation system. While some say that their worst fears about Callaghan Innovation favouring its own science providers have not eventuated, others say that Callaghan Innovation has got between them and their customers.

237. Regional economic development agencies are another key public sector partner in the innovation system, particularly given many of the Regional Business Partner contracts are with economic development agencies. They have the potential to assist Callaghan Innovation to reach into the SME market and find the firms that need access to R&D and technology services. Likewise, Callaghan Innovation has an opportunity through these regional actors to communicate its strategy and value proposition to a large number of businesses. Currently the strategy and the plan for execution is unclear to this sector. I noted concern about a loss of momentum over the previous year possibly due to some key staff changes at Callaghan Innovation. However some partners reported that there is now more clarity and shoots of progress are evident.
238. Callaghan Innovation has struggled to land its '*Go to Market*' strategy internally. Other sector participants tell a consistent story of the consequence of this delay – a lack of coherence and alignment across the system as the Callaghan Innovation market segmentation and strategy is complicated and hard to understand. While individual staff at Callaghan Innovation are committed to collaboration and trying to be customer facing, there is not a deliberate approach, high autonomy but low alignment. This is perceived as Callaghan Innovation trying to run a 'tight, loose, tight' management model, without the tight components. Callaghan Innovation's sector contribution at any point in time depends on the strength of the person assigned to a given task and the time they stay in role. These observations are similar to those made by Callaghan Innovation staff.
239. The one thing all sector participants agree on is that Callaghan Innovation must be successful in its integrator role in order for New Zealand to achieve its potential as articulated in the BGA. There is considerable goodwill to support this happening.
240. To be 'well placed' on *Sector Contribution*, Callaghan Innovation needs to:
- be relentless about meeting deliverables it agrees to do in collaboration with others
  - drive alignment through its organisation, clarify what it will and will not do, so others can get aligned to it to get collective impact
  - simplify its communication of its mission, strategy and operating model so others can understand and buy into it
  - while Callaghan Innovation needs to lead the local innovation system, it needs to form strategic alliances with key partners, co-creating strategy and aligning effort
  - complete its '*Go to Market*' strategy in close collaboration with the sector and its customers.

# Part Four: People Development

**Leadership and Workforce Development**  
How well does the agency develop its workforce (including its leadership)?  
How well does the agency anticipate and respond to future capacity and capability requirements?

---

Performance Rating: Weak 

**Management of People Performance**  
How well does the agency encourage high performance and continuous improvement amongst its workforce?  
How well does the agency deal with poor or inadequate performance?

---

Performance Rating: Needing development 

**Engagement with Staff**  
How well does the agency manage its employee relations?  
How well does the agency develop and maintain a diverse, highly committed and engaged workforce?

---

Performance Rating: Needing development 

## *Leadership and Workforce Development*

- 241. Callaghan Innovation states that success in achieving its mission ultimately relies on leaders who have the capability to navigate an evolving environment, bringing people with them, while ensuring current deliverables, longer-term outcomes and Ministerial expectations are met. What is expected of its leaders, in particular, is changing, with more emphasis on influencing skills and leading through vision and purpose. Similar changes are impacting the skills and capability required by staff.
- 242. Resolving ambiguity about its operating model is the fundamentally important leadership opportunity for Callaghan Innovation. It must decide to align its leadership approach, internally and externally, to a customer-driven, professional service firm philosophy of operating. By its nature this should be a collaborative and participatory approach, engaging early with staff, partners and customers to co-create strategy and tactics. If it does, its staff, partners and customers will be able to quickly support and engage with the Callaghan Innovation mission. This is the single, most important message we heard during this PIF Review.
- 243. While the customer-driven operating model is still being developed, there are signs that leaders across the business are aware of the need for resources to be strongly aligned to the business strategy and operating model. I have described the leadership approach required to support this type of model earlier. More needs to be done to draw these threads together in an explicit fashion, to ensure every layer of the operating model is aligned to deliver results to customers. The latest iteration of the organisational structure should better align roles, responsibilities and functions to a customer-driven approach.

244. Callaghan Innovation has invested considerable resource into addressing many of the nuts and bolts of its leadership and people strategy. Some of its key initiatives include:
- a three-month induction programme for new staff, Hōea Te Waka ki u ki uta; the establishment of a Pursuit Team, at Tier 3, to build leadership and management capability and the development of a leadership framework
  - targeted development opportunities in areas such as intellectual property, sales and business development and governance
  - development of a Callaghan Innovation competency framework that identifies behaviours and competencies critical for success. These competencies underpin learning and development, recruitment, and talent and performance management practices
  - establishing a Tier 4 People Leaders Forum and Tier 4 management training
  - introducing 360 degree feedback for ELT
  - developing a Leadership Hub for the intranet
  - a regular Administrators Day to underpin professional development of administrators
  - establishing a Woman in Leadership Network.
245. The critical issue for Callaghan Innovation is to get strong alignment of its Leadership and People Development Strategy with its business strategy. Strong technical capability was important to Callaghan Innovation's predecessor organisations, but the requirements of a customer-driven organisation require additional skills and capability. In order to be responsive to customers' needs, Callaghan Innovation needs staff with the experience and training that will allow them to play the bridging role needed of an integrator. Fundamentally, the people strategy needs to reflect the requirements of its business strategy. If its role is to facilitate collaboration and innovation, then Callaghan Innovation must also be characterised by these attributes. As noted earlier hierarchical leadership models managing the production and delivery of products and services are no longer suitable to deliver on Callaghan Innovation's vision, mission and strategy.
246. Professional practice models, built on strong voice of the customer foundations are more likely to provide the alignment between Callaghan Innovation's business strategy and Leadership and People Strategy. Driving this more explicitly through each component of its organisational operating model would assist Callaghan Innovation to clarify, simplify and prioritise its leadership and people strategy. Leadership in a customer-driven operating model is very different to the hierarchical leadership, top down model that supported the strategies of its predecessor organisations.
247. A number of external critical friends questioned whether Callaghan Innovation had grasped the implications of its customer-driven, integrator role for the way it leads and the people it recruits. Some have observed that it is this layer of its operating model that appears to be caught mid-stream between two very different operating models. If Callaghan Innovation could push through this, it would be well placed to accelerate execution of its strategy and would be able to tap into the commitment and capability of its workforce.
248. A critical issue yet to be addressed is how to get the near-to-market capability and understanding necessary to deliver on the Callaghan Innovation purpose. This is relevant not only in RTS, but also the grants and accelerator services parts of the business. Much deeper engagement with partners and customers needs to occur to define the future leadership and people strategy that will allow Callaghan Innovation to accelerate its delivery to customers.

249. To be 'well placed' on *Leadership and Workforce Development*, Callaghan Innovation needs to:

- ensure its leadership and people strategy is tightly aligned with a customer-driven, professional practice operating model
- align leadership behaviours, competencies and training to the full requirements of a 'tight-loose-tight' management approach
- ensure culture change, recruitment strategies and training support an enterprise leadership approach to underpin the *Getting to Great* operating model;
- explore more deeply with customers and partners the attributes, experience and competencies required across the organisation to deliver on its mission and vision.

### *Management of People Performance*

250. Callaghan Innovation has implemented a range of supporting frameworks and processes to underpin the management of people performance, including:

- a recently developed performance management framework and a review of the remuneration framework
- performance training for managers
- 360 reviews of ELT about desired leadership competencies
- trialing a *High Performance, High Potential Matrix* to be rolled-out to all Tier 3 managers
- agreeing to conduct 360 feedback for the Pursuit Team against agreed leadership competencies
- workshops on issues that arose in *Lets Connect* (engagement survey), including on managing poor performance.

251. There is evidence that this concerted effort has resulted in improvement in practice across Callaghan Innovation and this was reflected in the feedback I heard from staff focus groups and managers. I was impressed with the enterprise view being taken by the Tier 3 and 4 managers I interviewed.

252. Nevertheless there remains concern, both internally and externally, about whether Callaghan Innovation can sufficiently reward good performance and thus whether it has the ability to recruit people with market and firm experience that can lift the responsiveness of the organisation to meet business needs. There is a pressing need to ensure Callaghan Innovation can recruit and retain people with the skills to do firm and market-level analytics to drive future focus and priorities. One initiative, the Callaghan Innovation Awards that recognise superior performance, has been warmly received.

253. I also heard that behaviours contrary to the stated values and desired culture of Callaghan Innovation were being left unchallenged, including at a leadership level. Leadership teams must lead by example and consistently role model the desired behaviours and any instances of inconsistent behaviours must be promptly addressed.

254. Managerial capability that is aligned with the target operating model for Callaghan Innovation remains a work in progress. Further discussion is needed at the ELT level to make it explicit what enterprise leadership style, behaviours and values will best support the Callaghan Innovation business strategy. Early engagement and collaboration needs to be lived at Callaghan Innovation, reflecting the same behaviours it is trying to support across the innovation system.

255. If this occurs in a way that simplifies and clarifies “how we do business around here”, then the agency will capture a much bigger dividend from the other initiatives it has sponsored and invested in to improve people performance.
256. Finally, while staff and management noted improvements in people performance, it was almost universally commented that, although people were empowered to take action and people felt they were making a difference, it was very difficult to know whether they were doing the things that would create the best value for customers or advance the agency’s mission the most. Very few felt they had a clear line of sight between what they did and Callaghan Innovation’s desired outcomes. Many thought that no one outside their immediate team would know what they did. This is a lost opportunity for Callaghan Innovation, because it is fortunate to have a highly motivated and committed workforce.
257. To be ‘well placed’ on *Management of People Performance* Callaghan Innovation needs:
- a real focus on behaviours and values to support the operating model
  - to ensure there is clarity around what success looks like, how to measure success and how each staff member contributes to that success. Clear line of sight between what each staff member does every day and Callaghan Innovation’s desired impact is essential
  - develop the tight elements of a tight loose tight approach as part of its target operating model so individual action is deliberate and aligned across the organisation
  - to clarify “how we do business around here” and then ensure that it is strongly and consistently led.

### *Engagement with Staff*

258. At June 2015, Callaghan Innovation employed 354 permanent, 25 fixed-term and 32 part-time employees. Sixty-eight percent of Callaghan Innovation’s employees are male. While there is a lot of diversity across the Callaghan Innovation workforce, there is more diversity of staff and thought in some areas of the business than others. The CEO has supported concerted effort in this area and staff have noticed the leadership coming from the top.
259. About 80% of staff are operational staff and 75% are based in Wellington. Unplanned turnover at Callaghan Innovation looks consistent with public sector norms. However, there has been a high level of planned and unplanned turnover in Accelerator Services which has been noticed unfavorably by its customers.
260. About 25% of staff at Callaghan Innovation are PSA members. Callaghan Innovation has recently settled a new Collective Employment Agreement, which is principle-based and covers a variety of employment terms and conditions.
261. A number of Callaghan Innovation staff have been successfully transferred to other institutions in the innovation system, as the future role of Callaghan Innovation has been clarified. For example, in 2014 Callaghan Innovation transferred 58 staff to the Ferrier and Robinson Institutes at Victoria University so Callaghan Innovation could focus on near-to- market research.

262. Callaghan Innovation has well-understood workplace safety practices and policies supported by staff training and safety audits. Four of the ten highest rated questions in the *Let's Connect* survey relate to Health and Safety. Callaghan Innovation is aware of the enhanced health and safety requirements on every organisation, particularly with respect to third parties, and has taken steps to ensure compliance. Callaghan Innovation will need to be diligent on these matters as it increasingly partners with others at sites such as the FoodBowl and SuperShed.
263. While Callaghan Innovation has seen significant improvements in staff engagement, there are still high numbers of disengaged staff in RST and engagement is below the public sector average more generally. Since the engagement survey was undertaken, the ELT have taken a series of actions to address the issues raised in the last *Let's Connect* Survey.
264. More recent pulse surveys indicate significant progress is being made. Our workshops with staff confirmed this impression.
265. To be 'well placed' on *Engagement with Staff* Callaghan Innovation needs to:
- provide more clarity to staff, below the vision and mission level, about what drives the outcomes that are sought and how staff contribute to that. The operating model needs greater definition and staff need to know what success looks like in the organisation and in their areas
  - address the uncertainty around the future shape and role of RTS and quickly deliver on the SuperShed and a range of operating decisions to support it to be successful
  - engage staff earlier in identifying issues and possible solutions
  - consistently model desired behaviours that support collaboration, trust and innovation
  - fully test, develop and articulate a people strategy that is conducive to a customer-driven operating model and strategy
  - continue to drive diversity of ideas and people to spark innovation and agility in how Callaghan Innovation operates.

# Part Five: Financial and Resource Management

**Asset Management**  
How well does the agency manage agency and Crown assets, and the agency’s balance sheet, to support service delivery and drive performance improvement?

Performance Rating: Needing development 

**Information Management**  
How well does the agency manage and use information as a strategic asset?

Performance Rating: Needing development 

**Financial Management**  
How well does the agency plan, direct and control financial resources to drive efficient and effective output delivery?

Performance Rating: Needing development 

**Risk Management**  
How well does the agency identify and manage agency and Crown risk?

Performance Rating: Needing development 

## Context

- 266. As previously noted Callaghan Innovation is just three years old and is both a merger (bringing together components from MBIE, NZTE and IRL) and a start-up. It has inherited assets, systems and processes from its precursor organisations and has been through the process of assessing, integrating and replacing them as appropriate.
- 267. It has now embarked on its ‘Getting to Great’ initiative and is shifting its operating model to meet the future needs of its customers. In most instances adequate platforms are in place or are being put in place. In general I heard that there had been some false starts (eg CRM) that the systems had been tidied up but that they could be described as a work in progress.

## Asset Management

- 268. Aside from business assets, such as IT equipment, office fit-outs etc, Callaghan Innovation has three significant assets:
  - Gracefield and leased premises in Auckland and Christchurch
  - its IT system
  - Its shareholding in the FoodBowl, FoodWaikato and FoodSouth.
- 269. The site at Gracefield had been allowed to run down (both property and some equipment) when it was inherited from IRL. Some maintenance (sprucing up) has been undertaken pending decision on the future of RTS and consequently of the site.

270. There are two aspects to the plans for Gracefield's future:
- the finalisation of the SuperShed concept and then the 'configuration' of the site to match those decisions
  - the development of an Innovation Hub.
271. The SuperShed initiative will also have implications for the RTS footprint (if any) in Auckland and Christchurch.
272. Other entities operating in the HVMS and Innovation space are already located at Gracefield.
273. The Callaghan Innovation Board has approved an Overarching Strategic Framework and authorised the development of both a National Property Strategy and an Innovation Precinct (Gracefield) Business Case. As noted the completion of these will be dependent on the '*Getting to Great*' work programme (and in particular the SuperShed aspect).
274. The Callaghan Innovation Board approved the Information Systems Strategic Plan (ISSP) and funding of \$4.2 million in August 2015. The ISSP was developed to provide a work programme for information management and technology systems in Callaghan Innovation. The implementation of the recommendations of the ISSP fit with the primary goals as described in the *Statement of Intent 1 July 2014-30 June 2018*.
275. The first tranche of work provided for:
- a new Callaghan Innovation Infrastructure using of "All of Government" cloud infrastructure as a service
  - a Public Records Act compliant central document management and intranet system
  - a new CRM, leveraging the design of the NZTE CRM
  - a Hazardous Substances and New Organisms Act compliant Chemical Inventory System.
276. This was to be followed up by a second tranche covering:
- a Financial Management Information System (FMIS) replacement
  - website redevelopment
  - Human Resources/Payroll (HRIS)
  - Telephony.
277. With the exception of the CRM Project all projects have been or are forecast to be delivered as expected. The post implementation review of the CRM (implemented in April 2015) indicated simplification of business processes was required. These were to be implemented in April 2016 and the System expanded for use by Regional Technology partners and NZ Food Innovation Network (NZFIN).
278. The investments in the FoodBowl, FoodSouth and Food Waikato are part of Callaghan Innovation's contribution to NZFIN and involve both an ownership interest and on-going commitment of funding to support the operations. The FoodBowl is a joint venture between ATEED (1/3rd) and Callaghan Innovation (2/3rd) but serves a national market. It was established (with funding from MBIE and ATEED) in 2011 with the intention that it become self-sustaining.

279. Recognising that this was not likely to happen in the foreseeable future, Callaghan Innovation and ATEED entered into a joint venture in 2013. The Review (inter alia) acknowledged that the FoodBowl had achieved a marked improvement in operational performance, but that growth in revenues was slowing, and that it was providing the benefits contemplated in the business case that underpinned Callaghan Innovation's investment.
280. While the FoodBowl was unlikely to become self-sufficient improvements could be made particularly in terms of its alignment/integration with Callaghan Innovation's other offerings that would improve performance. A number of recommendations were made and have been accepted by Callaghan Innovation.
281. To be 'well placed' on *Asset Management*, Callaghan Innovation will need to:
- complete the SuperShed and other related work streams/projects in the *Getting to Great* work programme
  - ensure that its National Property Plan and plans for the Gracefield site Innovation Hub are fully aligned with its business strategy, target operating model and the result of the *Getting to Great* work-streams/projects.

### *Information Management*

282. As noted above Callaghan Innovation has developed and largely implemented its ISSP. Implementation of the ISSP was intended to facilitate:
- making better use of technology and media to enhance services and customer access to these services
  - partnering with others to provide services to increase the effectiveness of the service and/or reduce costs through the use of AOG services and partnership with other government agencies eg MBIE Investment Management System (IMS)
  - capital investment and asset management, the upgrading of ICT systems, dealing with deferred maintenance of systems and property
  - improving and managing organisational health and capability
  - supporting strategic initiatives in the innovation system e.g. New Zealand Business Number, data sharing with NZTE, NZFIN etc.
283. The CRM system has been implemented but further work is being undertaken to improve business processes and to ensure it will support the way Callaghan Innovation and its customers and partners need to operate.
284. Callaghan Innovation has also identified the need to improve its business intelligence capability including the development of improved performance measures and metrics.
285. To be 'well placed' for *Information Management* Callaghan Innovation will need to:
- complete the current work on the CRM, and work with NZTE, its Regional Business Partners and other strategic partners to gather and share information they all need to understand the current and future needs and expectations of their customers
  - develop a comprehensive and insight generating set of performance measures and metrics that will support excellent and innovative decision-making
  - value and promote effective information management as a key leadership behaviour, essentially for delivering against a customer-focussed business strategy.

### *Financial Management*

286. Financial management has improved. Callaghan Innovation's auditors (PWC) have assessed:

- the management control environment as very good (good 2014)
- financial management and control as very good (good 2014)
- Service Performance Measurement and Associated Information and Controls as needs improvement (needs improvement 2014).

287. Currently strategic financial management is underdeveloped. This is normal for a newly formed and relatively small business.

288. To be 'well placed' on *Financial Management* Callaghan Innovation will need to put in place the business intelligence, performance and risk management systems and processes that can be used to drive resource allocation, effectiveness and efficiency.

### *Risk Management*

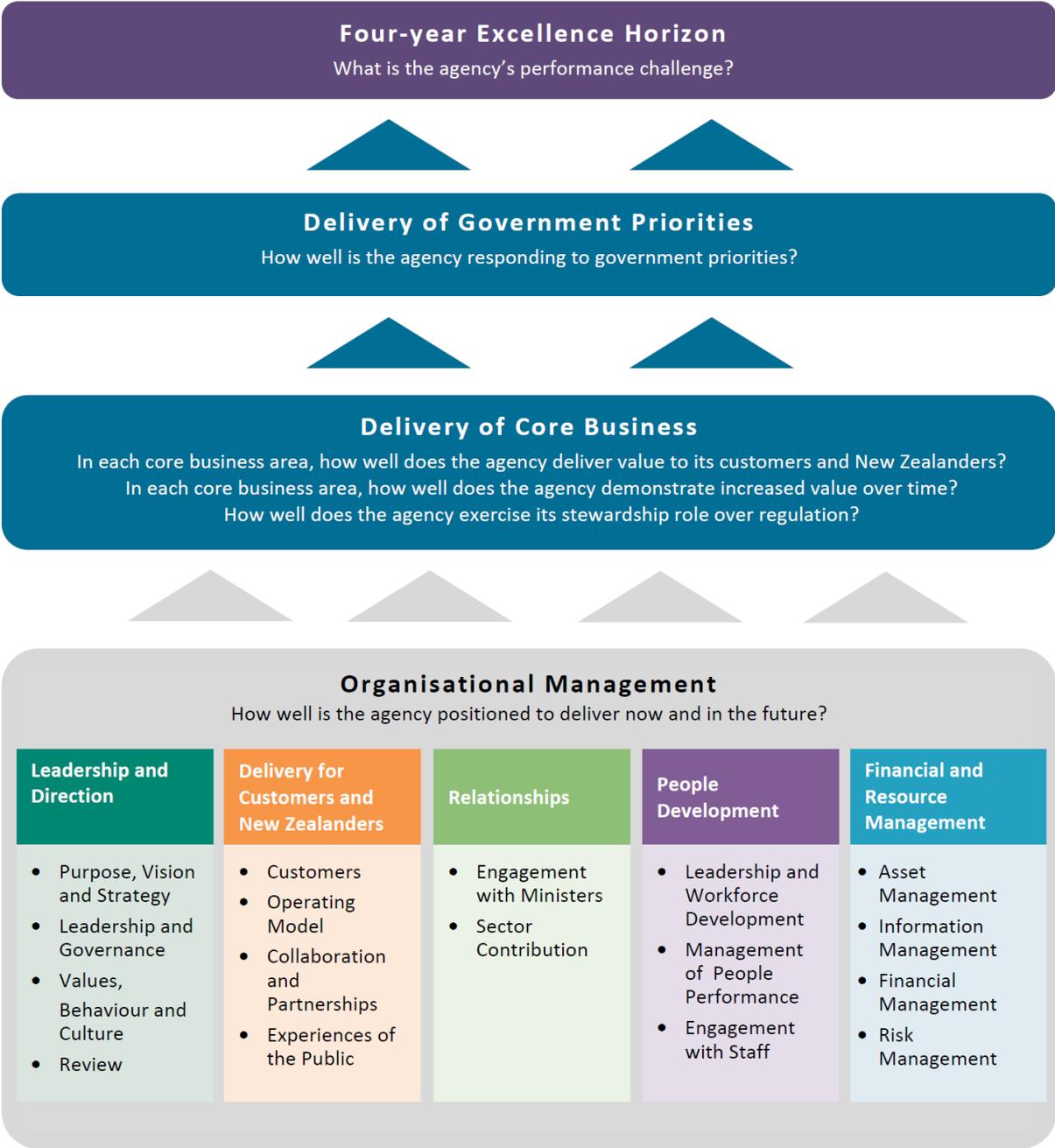
289. Again the fundamentals are in place for risk management. Callaghan Innovation has a systemic risk policy, and good reporting practices both to the ELT and at high level to the Board's Risk and Audit Committee.

290. A particular focus has been on occupational health and safety given the new legislation, the nature of Callaghan Innovation's RTS services and the state of its premises at Gracefield. Callaghan Innovation now seems to be well placed in this regard.

291. To be 'well placed' on *Risk Management* Callaghan Innovation needs to develop a more explicit expression of risk appetite in the organisation and strategies to segment risk and locate it where it can best be managed while allowing needed innovation, experimentation and risk taking to occur.

# Appendix A

## Overview of the Model



# Lead Questions

## Four-year Excellence Horizon

What is the agency's performance challenge?

### Results

Critical area	Lead Questions
Government Priorities	1. How well is the agency responding to government priorities?
Core Business	2. In each core business area, how well does the agency deliver value to its customers and New Zealanders?
	3. In each core business area, how well does the agency demonstrate increased value over time?
	4. How well does the agency exercise its stewardship role over regulation?

### Organisational Management

Critical area	Element	Lead Questions
Leadership and Direction	Purpose, Vision and Strategy	5. How well do the staff and stakeholders understand the agency's purpose, vision and strategy? 6. How well does the agency consider and plan for possible changes in its purpose or role in the foreseeable future?
	Leadership and Governance	7. How well does the senior team provide collective leadership and direction to the agency and how well does it implement change? 8. How effectively does the board lead the Crown entity? (For Crown entities only)
	Values, Behaviour and Culture	9. How well does the agency develop and promote the organisational values, behaviours and culture it needs to support its strategic direction and ensure customer value?
	Review	10. How well does the agency encourage and use evaluative activity?
Delivery for Customers and New Zealanders	Customers	11. How well does the agency understand who its customers are and their short and longer term needs and impact? 12. How clear is the agency's value proposition (the 'what')?
	Operating Model	13. How well does the agency's operating model (the 'how') support delivery of government priorities and core business? 14. How well does the agency evaluate service delivery options?
	Collaboration and Partnerships	15. How well does the agency generate common ownership and genuine collaboration on strategy and service delivery with partners and providers? 16. How well do the agency and its strategic partners integrate services to deliver value to customers?
	Experiences of the Public	17. How well does the agency employ service design, continuous improvement and innovation to ensure outstanding customer experiences? 18. How well does the agency continuously seek to understand customers' and New Zealanders' satisfaction and take action accordingly?
Relationships	Engagement with Ministers	19. How well does the agency provide advice and services to Ministers?
	Sector Contribution	20. How effectively does the agency work across the sector?
People Development	Leadership and Workforce Development	21. How well does the agency develop its workforce (including its leadership)? 22. How well does the agency anticipate and respond to future capacity and capability requirements?
	Management of People Performance	23. How well does the agency encourage high performance and continuous improvement amongst its workforce? 24. How well does the agency deal with poor or inadequate performance?
	Engagement with Staff	25. How well does the agency manage its employee relations? 26. How well does the agency develop and maintain a diverse, highly committed and engaged workforce?
Financial and Resource Management	Asset Management	27. How well does the agency manage agency and Crown assets, and the agency's balance sheet, to support service delivery and drive performance improvement?
	Information Management	28. How well does the agency manage and use information as a strategic asset?
	Financial Management	29. How well does the agency plan, direct and control financial resources to drive efficient and effective output delivery?
	Risk Management	30. How well does the agency identify and manage agency and Crown risk?

## Appendix B

### List of Interviews

This review was informed by input provided by the Minister of Science and Innovation, a number of Callaghan Innovation staff, Board and Stakeholder Advisory Group members, by central agency and MBIE officials and by representatives from the following businesses, organisations and agencies.

<b>Agency/Organisation</b>
ATEED
BreathEasy
Business New Zealand
Dulux Ltd
Fisher and Paykel
FoodBowl
FoodSouth
Kiwinet
Icehouse
Iron Duke Partners
Lifeonics
Otago University
Ovine Automation
Plant and Food
Plus Group
Private Flight
Productivity Commission
Public Service Association
Victoria University of Wellington